

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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 RICHARD M. D'SIDOCKY
and NEIL A. MALY

Appeal No. 96-1578
Application 07/863,891¹

ON BRIEF

Before WINTERS, WILLIAM F. SMITH, and GRON, Administrative Patent Judges.

WILLIAM F. SMITH, Administrative Patent Judge.

¹ Application for patent filed April 6, 1992.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the final rejection of claims 7 through 11. Subsequently, claim 9 was canceled and claims 12 and 13 were added. This leaves claims 7, 8, and 10 through 13 for our consideration in this appeal. These are all of the claims pending in the application.

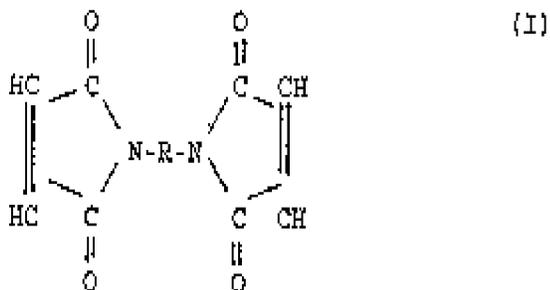
Claim 12 is illustrative of the subject matter on appeal and reads as follows:

12. A rubber stock comprising:

(a) a rubber selected from the group consisting of natural rubber, a rubber derived from a diene monomer and mixtures thereof,

(b) from about 0.10 to about 0.75 phr of tetrabenzylthiuram disulfide;

(c) from about 0.5 to about 3 phr of a bismaleimide compound of the general formula:

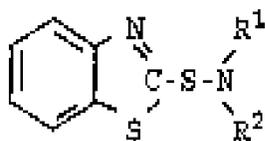


wherein R is a divalent acyclic aliphatic group having from about 2 to 16 carbon atoms, cyclic aliphatic group having

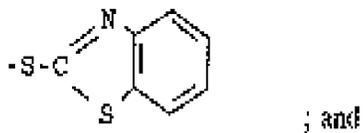
Appeal No. 96-1578
Application 07/863,891

from about 5 to 20 carbon atoms, aromatic group having from about 6 to 18 carbon atoms, or alkylaromatic group having from about 7 to 24 carbon atoms and wherein these divalent groups may contain a hetero atom selected from O, N and S;

(d) from about 0.5 phr to about 3 phr of a sulfenamide compound of the general formula:



wherein R¹ is hydrogen, an acyclic aliphatic group having from about 1 to 10 carbon atoms, or a cyclic aliphatic group having from about 5 to 10 carbon atoms; and R² is hydrogen, a cyclic aliphatic group having from about 5 to 10 carbon atoms or a mercaptobenzothiazolyl group of the formula:



(e) from about 0.5 to about 6 phr of sulfur, a sulfur donor and mixtures thereof.

Preliminary Issue

The only rejection before us for review is of all the claims under 35 U.S.C. § 103. The examiner relies upon three references as evidence of obviousness. Two of the references, Nagasaki² and Yamamoto,³ are clearly identified. However, the third reference is not.

The examiner rejected the then pending claims under 35 U.S.C. § 103 in the first Office action (Paper No. 5, mailed September 24, 1992) over a combination of three references including Nagasaki and Yamamoto. The third reference was identified as "EP283552." From that citation, one would believe that the third reference was a published European Patent Application. However, the form PTO-892 which accompanied the first Office action does not contain any entries under the heading "FOREIGN PATENT DOCUMENTS." Rather, under the section entitled "OTHER REFERENCES," the examiner cited EUROPÄISCHE, PATENTANMELDUNG (EP) 0,283,552 Sept. 28, 1988. That would indicate that the examiner was relying upon a technical publication, not a foreign patent document such as a published European Patent Application. In responding to that Office Action in the paper filed December 28,

² Nagasaki et al. (Nagasaki), U.S. Patent No. 4,960,833, issued October 2, 1990.

³ Yamamoto et al. (Yamamoto), U.S. Patent No. 4,933,385, issued June 12, 1990.

Appeal No. 96-1578
Application 07/863,891

1992, appellants characterized the rejection as being based upon, inter alia, “the Chemical Abstract for EP 283552” on the apparent assumption that that was the technical publication the examiner was relying upon. If so, appellants’ assumption was reasonable since appellants had supplied a copy of that abstract in the Information Disclosure Statement filed April 6, 1992. Despite the apparent confusion as to what document was relied upon, the examiner did not clarify the confusion in the final rejection (Paper No. 8, mailed March 12, 1993).

As seen from page 2 of the Appeal Brief (Paper No. 12, filed August 19, 1993), appellants have pursued this appeal on the assumption that the examiner was relying upon the abstract of EP 283552. However, in citing references at page 2 of the Examiner’s Answer, the examiner cites EPO 0,283,552, September 1988. From this, it appears that the examiner may now be relying upon the complete published European Patent Application.

Obviously, it is important to determine precisely which document the examiner is relying upon, the abstract or the complete document, so that we may determine what evidence has been relied upon by the examiner. This is especially important in this case since appellants and the examiner have not agreed upon the facts evident from the applied prior art. In the first Office action, the examiner stated at pages 2-3 that “EP discloses all elements of the claimed subject matter except bismaleimide (bm).”

Appeal No. 96-1578
Application 07/863,891

Appellants disputed that finding in the response of December 28, 1992, stating at page 1 that “[a]pplicant’s [sic] review of the abstract fails to find any reference to bismaleimide, the sulfenamide component or the sulfur or sulfur donor component.”

In the final rejection mailed March 12, 1993, the examiner further added to the confusion by not restating the rejection or clarifying on what basis he determined that “EP” described the claimed composition but for bismaleimide. Rather, the examiner first stated (page 2) that appellants’ arguments were fully considered but were not persuasive. The examiner went on to state that “EP discloses all elements of claimed subject matter except bis-maleimide (bm). EP does, in fact, discloses sulfur, sulfonamide [sic], etc.” (Final Rejection, page 2).

Appellants correctly characterized the content of the abstract in their initial response, i.e., the abstract does not describe the use of the sulfenamide component or the sulfur or sulfur donor component of the present invention. On what basis the examiner determined that “EP” discloses sulfur and sulfenamide is not apparent. It may be that, by the time of the final rejection, the examiner had obtained a copy of the underlying published European Patent Application 0 283 552. The record is not clear on this point. What is clear, is that appellants continue to believe that the examiner is relying on the abstract of the published European Patent Application and that the

Appeal No. 96-1578
Application 07/863,891

abstract does not disclose certain of the elements of the claimed composition such as a sulfenamide.

There is a copy of published European Patent Application 0 283 552 of record which is in the German language. Also associated with this file is a translation of that published European Patent Application. The Examiner's Answer was mailed November 19, 1993. According to the Request for Translation associated with the translation, the translation was not requested by the examining group until March 17, 1995, and was available to the examiner on April 11, 1995.⁴

As the case now stands, it appears that the "EP" document the examiner relied upon up to and including the Examiner's Answer was the abstract of published European Patent Application 0 283 552, not the complete, translated document. This is important because appellants are correct in arguing that the abstract does not describe certain of the components of the claimed composition. Thus, if the merits of the appeal are to be decided on the basis of using the abstract, we would reverse. However, a review of the translation of the document reveals that it does disclose a composition containing sulfenamide and sulfur. See Table III, page 10 of the translation. From this, it appears that the examiner was in possession of a copy of the untranslated document

⁴ We make of record and enclose for appellants' convenience, copies of the full-text German language EP 0 283 552, the Request for Translation submitted by the examining group, and the translation received in response.

Appeal No. 96-1578
Application 07/863,891

during prosecution of this application, but for reasons not clear on this record did not provide appellants a copy of the document or clearly indicate that he was relying upon the whole text document. Furthermore, if the examiner was in possession of the full text document during the prosecution of this case, the examiner did not obtain a translation of the foreign language document in a timely manner. Why the examiner would have not done so is not apparent. As seen from the request for translation that was ultimately submitted, the document was translated in less than 30 days.

Ordinarily, on a record such as this where it is apparent that appellants were not made fully aware by the examiner as to the factual basis of a rejection under 35 U.S.C. § 103, we would remand the application to the examiner for the purpose of allowing appellants a full and fair opportunity to respond. However, under the circumstances of this appeal, we have considered the rejection before us on the basis that the examiner is relying upon the translation of published European Patent Application 0 283 552 and will proceed to a decision.

Issue

Is the examiner's rejection of claims 7, 8, and 10 through 13 under 35 U.S.C. § 103 as unpatentable over the translation of published European Patent Application 0283552 (Kuhlmann) taken in view of either Nagasaki or Yamamoto correct?

Discussion

The Kuhlman translation and Nagasaki do support a conclusion of prima facie obviousness under two separate rationales. As seen from claim 12, a rubber stock is claimed which comprises a rubber, tetrabenzylthiuram disulfide, a bismaleimide, a sulfenamide, and sulfur, a sulfur donor or mixtures thereof. As set forth above, Table III of the translation of Kuhlmann describes a mixture which comprises rubber, tetrabenzylthiuram disulfide, a sulfenamide, and sulfur but does not contain a bismaleimide as required by claim 12 on appeal.

Nagasaki also describes rubber compositions. As seen from the paragraph bridging columns 1-2 of that reference, those compositions can comprise rubber, a bismaleimide, a sulfenamide, and sulfur. As seen from column 4, lines 25-34, the compositions of Nagasaki may also include a variety of thiuram disulfides, either as sulfur donors or vulcanization accelerators. However, Nagasaki does not describe the use of the specific thiuram disulfide required by the claims on appeal, i.e., tetrabenzylthiuram disulfide.

The first manner in which these references can be viewed as supporting a conclusion of prima facie obviousness is seen from Nagasaki's disclosure that a bismaleimide compound is conventionally used in rubber formulations which contain a sulfenamide, sulfur, and thiuram disulfides. Thus, one of ordinary skill in the art would

have found it prima facie obvious to modify the composition of Table III of the Kuhlmann translation to include a bismaleimide. Alternatively, viewing the compositions described by Nagasaki, they differ from those required by claim 12 most notably in that Nagasaki does not specifically state that the thiuram disulfide useful therein may be tetrabenzylthiuram disulfide. However, the translation of Kuhlmann describes the advantages of using tetrabenzylthiuram disulfide in rubber compositions, e.g., for the purpose of minimizing the formation of carcinogenic nitrous amines from vulcanization accelerators during manufacture. See, e.g., page 5 of the Kuhlmann translation. Thus, one of ordinary skill in the art would have found it prima facie obvious to use tetrabenzylthiuram disulfide as the thiuram disulfide in the composition of Nagasaki.

Our determination that the translation of Kuhlmann and Nagasaki support a conclusion of prima facie obviousness does not end the matter. As set forth in In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986), “[i]f a prima facie case is made in the first instance, and if the appellant comes forward with reasonable rebuttal, whether buttressed by experiment, prior art references, or argument, the entire merits of the matter are to be reweighed.” Here, appellants rely upon certain of the working examples of the present specification as evidence of nonobviousness. As set forth at page 3 of the Appeal Brief, Control Sample 2 and Sample 3 represent a

comparison of the claimed composition and that described in the translation of Kuhlmann. Appellants direct particular attention to one of the properties measured in that comparison, i.e., cure reversion, stating that the multi-incremental improvement in cure reversion obtained from the composition according to the claimed invention as compared with a composition according to the translation of Kuhlmann that does not contain a bismaleimide is “significant and unexpected.” In essence, appellants rely upon the comparison between Control Sample 2 and Sample 3 as rebuttal evidence of the first stated case of prima facie obvious.

Appellants also direct attention in the paragraph bridging pages 4-5 of the Appeal Brief to the comparison in the present specification between Sample 3 and Control Sample 4. Appellants urge that this comparison shows “the criticality of use of the tetrabenzylthiuram disulfide in achieving better reversion resistance properties.” This comparison is relied upon as rebuttal evidence to the second stated case of prima facie obviousness.

The examiner’s response to appellants’ reliance on this evidence is set forth at pages 3-4 of the Examiner’s Answer is as follows:

The improvement in cure reversion demonstrated in Tables I, II has not been considered to the extent that disclosure of prior art has been shown to lack any cure reversion. The Tables only show the use of rubber (natural rubber), CBTS, N, N-(m phenylene) bismaleimide would yield the unobvious result (reversion value) where a five fold and eight fold improvement at 1,2,3 points, respectively is observed.

Appeal No. 96-1578
Application 07/863,891

In appellants' response (March 29, 1993), there was no evidence of probative value, such as a declaration, etc. to overcome this position.

Additionally, Control 4 in Table II which represents prior art illustrates use of bismaleimide - in this comparative run the result (reversion value) was a three fold and four fold improvement at 1, 2,3 point. From this observation of prior art a skilled person would be motivated to use the bismaleimide where improvement in cure reversion is desired.

It is not understood what the examiner means in the first sentence in that the "improvement in cure reversion . . . has not been considered" The question is not whether the prior art compositions suffer from a deficiency in their cure reversion property. Rather, the question is whether appellants have demonstrated an unexpected improvement in cure reversion vis-à-vis the prior art. The examiner has not explained why the demonstrated improvement in cure reversion in the proffered comparisons would have been considered expected by one of ordinary skill in the art.

In similar fashion, we do not understand what the examiner means by the second sentence. The examiner appears to be conceding that appellants have demonstrated an "unobvious result (reversion value)." If so, that concession is inconsistent with the previous sentence in the above quoted portion of the Examiner's Answer.

It may be that this passage is an expression of the examiner's concern that the proffered evidence is not commensurate in scope with the claims on appeal. If so, the examiner has failed to supply any reasons why one skilled in the art would not expect the same results to occur throughout the scope of the claims.

As to the examiner's concern that "there was not evidence of probative value, such as a declaration, etc.," the examiner has not set forth any reason why the comparisons set forth in the supporting specification of the application are not entitled to sufficient weight so as to outweigh the evidence of obviousness relied upon in support of the rejection.

Finally, we do not understand the point the examiner is trying to make in his reference to "Control 4 in Table II" in the last paragraph in the above quoted portion of the Examiner's Answer. As explained above, one of ordinary skill in the art would have found the claimed compositions prima facie obvious from a consideration of the translation of Kuhlmann and Nagasaki. However, as also pointed out above, this does not end the matter since, at that point, the examiner must take a step back and reweigh the entire merits of the matter. It does not appear that the examiner has done so.

Appeal No. 96-1578
Application 07/863,891

The decision of the examiner is reversed.

REVERSED

Sherman D. Winters)	
Administrative Patent Judge)	
)	
)	
)	BOARD OF PATENT
William F. Smith)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
)	
)	
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Appeal No. 96-1578
Application 07/863,891

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