

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 12

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte LAWRENCE A. BLAUSTEIN,
PATRICK W. BROWN,
and SHANE VANDERLINDEN

Appeal No. 1998-3300
Application 08/722,907¹

ON BRIEF

Before COHEN, FRANKFORT and CRAWFORD, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 7, which are all of the claims pending in this application.

¹ Application for patent filed September 27, 1996.

Appellants' invention relates to a capless retractable sealed writing instrument and to a single piece, flexible seal for use therein. Independent claims 1 and 7 are representative of the subject matter on appeal.

1. A capless retractable sealed writing instrument comprising:

an elongate marker casing with an axial opening,

a marker cartridge having a marker nib and held within a marker carrier mechanism within the marker casing, the marker carrier mechanism operative to linearly move the marker cartridge and marker nib within the marker casing, to extend and retract the marker nib through the axial opening in the marker casing,

and a single piece seal held within the marker casing proximate to the open end of the marker casing, the single piece seal having a generally annular rim held within the marker casing in a plane generally perpendicular to a longitudinal axis of the marker casing, and a concave flexible disk attached to and within a circular area defined by the annular rim, the concave disk having a cross-section in the form of an arc with an apex of the arc oriented to face the marking nib when the marking nib is in a fully retracted position within the marker casing, and a full diameter slit through the radial center and cross-section of the concave disk, from one point of the internal diameter of the annular rim to a radially opposite point, to form cooperative sealing disk halves which are deflectable away from the slit to allow passage of the marker nib through the seal upon linear movement of the marker cartridge and marker nib by the marker carrier mechanism to an extended position, and which return to a concave sealed configuration upon retraction of the marker nib into the marker casing.

7. A flexible elastomeric single piece marking instrument seal specifically configured for incorporation in marker instruments having a marker cartridge and marker nib susceptible to atmospheric degradation, the marker seal comprising:

an annular rim having an outer diameter approximately equal to an inner diameter of a marker casing of a marking instrument into which the seal is to be incorporated, and an inner diameter at least equal to a diameter of a marker nib of a marking instrument into which the seal is to be incorporated, the annular rim having a thickness dimension equal to a thickness dimension of flexible elastomeric

material from which the seal is formed, the annular rim being generally planar so that the plane of the annular rim can be oriented generally perpendicular to a longitudinal axis of a marker casing of a marking instrument into which the seal is to be incorporated,

a concave sealing disk attached to and extending over a circular area defined within the internal diameter of the annular rim, a cross-section of the concave sealing disk being in the form of an arc, the arc having an apex orientable toward an interior of a marker instrument casing into which the seal is incorporated, the concave sealing disk further comprising a full diameter slit through a radial center and cross-section of the disk, cooperative sealing disk halves on either side of the full diameter slit, the cooperative sealing disk halves having lateral sealing surfaces which are substantially flush along an entire length of the slit when the disk is in a sealed configuration, the cooperative sealing disk halves being deflectable to a non-concave configuration by a marker nib which is linearly advanced from an interior of a marking instrument into the seal, contacting the seal approximately at the apex, and the cooperative sealing disk halves being returnable to a sealed concave configuration with the lateral sealing surfaces in substantially flush contact upon retraction of a marker nib through the slit and out of contact with the sealing disk halves.

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

are:

Hoffman	261,457	July 18, 1882
Kroutl	1,541,826	June 16, 1925
Lai	5,092,701	Mar. 3, 1992
Bross (German Patent)	1561812	Apr. 2, 1970
Di Silvestro (Swiss Patent)	6122885	Aug. 31, 1979

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Claims 1 through 3, 6 and 7 stand rejected under 35 U.S.C. § 103 as being unpatentable over Bross in view of Di Silvestro. On page 4 of the answer, the examiner has explained this rejection thusly,

German Publication #1561812 [Bross] discloses substantially similar structure in Figure 4. Swiss Patent #612885 [Di Silvestro] shows the concave portion toward the tip in Figure 7. It would have been obvious to a mechanic with ordinary skill in the art to reverse the seal if so desired. The motivation is the known equivalence as shown in Figures 6 and 7 of the Swiss Patent (Answer, page 4).

Claims 4 and 5 stand rejected under 35 U.S.C. § 103 as being unpatentable over Bross in view of Di Silvestro as applied above, and further in view of Lai, Hoffman and Kroutl.

Rather than reiterate the examiner's full statement of the above-noted rejections and the conflicting viewpoints advanced by the examiner and appellants regarding the rejections, we make reference to the examiner's answer (Paper No. 11, mailed June 3, 1998) for the reasoning in support of the rejections, and to appellants' brief (Paper No. 10, filed March 9, 1998) for the arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by appellants and the examiner. As a consequence of our review, we have made the determination that the examiner's above-noted rejections will not be sustained. Our reasons follow.

Looking first at the rejection of claims 1 through 3, 6 and 7 under 35 U.S.C. § 103 based on the collective teachings of Bross and Di Silvestro, in contrast to the position of the examiner, we find no reasonable teaching or suggestion in Di Silvestro for merely reversing the orientation of the sealing element (3) seen in Figure 4 of Bross. The examiner's assertion on page 5 of the answer that "[a] mechanic with ordinary skill in the art in view of the Swiss Patent clearly could adapt the disk of the primary reference to be used in the reverse direction" (emphasis added), in our opinion, is fraught with speculation and conjecture. While it is true that Figures 6 and 7 of Di Silvestro appear to show sealing elements that would have the convex portions thereof facing in different directions relative to the marking nib of a writing instrument, we note that the

structure of each of these sealing elements in Di Silvestro is quite different from one another and, with particular regard to Fig.7, is also distinctly different from the structure of the sealing element (3) of Bross.

Moreover, we must agree with appellants (brief, page 3) that there is no teaching, suggestion or incentive in the applied references, or otherwise specified by the examiner, which would have led one of ordinary skill in the art to modify the sealing element (3) in Figure 4 of Bross to be of the particular configuration required in independent claims 1 and 7 on appeal. More specifically, we note that the modification urged by the examiner would not result in a sealing element with an annular rim, a concave flexible disk attached to and extending over a circular area defined by the internal diameter of the annular rim, and a “full diameter slit through the radial center and cross-section of the radial disk” of the sealing element, as is required in appellants’ claims on appeal. Note particularly the slit (44) seen in Figures 3 and 5 of appellants’ drawings and the clear recitation in claim 1 on appeal that said slit must extend “from one point of the internal diameter of the annular rim to a radially opposite point.” No such slit is present in the sealing element (3) of Bross, or in the modification of Bross as proposed by the examiner.

In this regard, we note that Bross (translation, page 4) indicates that the seal (3) “has a sealed,

thin site (14) that is penetrated by the writing tip (15) when it is first moved,” while page 5 of the translation, with particular regard to Figure 4, notes that at the thin site (14) of the seal (3) “there can be a very small incision (25) made in the factory or just a puncture.” Clearly the very small incision or puncture mentioned in Bross is not the same as the full diameter slit required in appellants’ claims on appeal. As for the teachings of Di Silvestro, the length of the slit (8) in the sealing elements therein is said to be “preferably a little greater than the diameter of a hollow shaft (9) onto which the writing point is attached” (translation, page 5). See, particularly, Figures 1-4 of Di Silvestro. Again, it is clear that the slit in the sealing elements of Di Silvestro is not a full diameter slit of the type specified in appellants’ claims on appeal.

Since the combined teachings of the applied references to Bross and Di Silvestro would not have rendered the subject matter of appellants’ claims on appeal obvious to one of ordinary skill in the art at the time appellants’ invention was made, it follows that we will not sustain the examiner’s rejection of claims 1 through 3, 6 and 7 under 35 U.S.C. § 103.

Our review of the Lai, Hoffman and Kroutl patents applied by the examiner against dependent claims 4 and 5 reveals nothing which would alter our view as expressed above. Accordingly, the examiner’s rejection of dependent claims 4 and 5 under 35 U.S.C. § 103 is likewise not sustained.

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It follows from the foregoing that the decision of the examiner is reversed.

REVERSED

IRWIN CHARLES COHEN)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
)	APPEALS AND
CHARLES E. FRANKFORT)	INTERFERENCES
Administrative Patent Judge)	
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