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**Datasheet for the decision
of 10 May 2007**

Case Number: T 0669/05 - 3.2.07

Application Number: 96900356.5

Publication Number: 0804370

IPC: B65D 5/72

Language of the proceedings: EN

Title of invention:

Improvements relating to the packaging of conventional
cigarette packs

Patentee:

British American Tobacco (Investments) Limited

Opponent:

Philip Morris Products S.A.

Headword:

-

Relevant legal provisions:

EPC Art. 56, 123, 84

RPBA Art. 11(3)

Keyword:

"Auxiliary request (admissible)"

"Clarity (undecided)"

"Person skilled in the art, solution to each independent
problem obvious (partial problems)"

"Inventive step (no)"

Decisions cited:

T 1057/03

Catchword:

-



Case Number: T 0669/05 - 3.2.07

D E C I S I O N
of the Technical Board of Appeal 3.2.07
of 10 May 2007

Appellant: British American Tobacco (Investments) Limited
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Respondents: Philip Morris Products S.A.
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 16 March 2005
revoking European patent No. 0804370 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: H. Meinders
Members: H.-P. Felgenhauer
I. Beckedorf

Summary of Facts and Submissions

- I. This appeal is against the decision of the opposition division revoking European patent No. 0 804 370.
- II. The appellant (proprietor) requested that the decision of the opposition division be set aside and the patent be maintained in amended form on the basis of the main request filed with the grounds of appeal dated 12 July 2005 or the auxiliary request filed at the oral proceedings, held before the Board on 10 May 2007.

The respondent (opponent) requested the appeal to be dismissed. It neither replied to the grounds of appeal nor to the communication of the Board annexed to the summons for oral proceedings dated 30 January 2007 and did not attend the oral proceedings.

- III. Claim 1 of the patent in suit according to the main request reads as follows:

"1. A display box (1) formed from a blank, which box contains two columns of cigarette packs arranged side by side along the longitudinal side dimension of said packs, said packs having a front and a rear panel, two longitudinal sides and a top and a bottom side, and ensuing rows of pairs of packs being stacked in a superimposed relationship, and the box having a removable dispensing portion (36), the removal of which portion exposes at least one row of the two columns of packs."

Claim 1 of the patent in suit according to the auxiliary request reads as follows:

"1. A display box (1) formed from a blank, which box contains two columns of cigarette packs arranged side by side along the longitudinal side dimension of said packs, said packs having a front and a rear panel, two longitudinal sides and a top and a bottom side, and ensuing rows of pairs of packs being stacked in a superimposed relationship, and the box having a removable dispensing portion (36), the removal of which portion exposes substantially more than one row of the two columns of packs, such that the second lowest row is fully exposed and a part of the row below is also exposed, whereby the lowest row of packs is removed after the packs above have been removed."

IV. The following prior art, already discussed in the decision under appeal, has been considered relevant for the appeal proceedings

D2: US-A-2 771 988

D6: US-A-1 725 372

D7: US-A-2 875 938.

In the oral proceedings before the Board the appellant furthermore referred to

D9: EP-A-0 373 746

cited in the International Search Report for the patent in suit.

- V. According to the impugned decision the subject-matter of a claim being directed to a display box for cigarette packs and being limited to the alternative of claim 2 as granted, according to which "the box contains two columns of packs", as it is the case for the present claims 1 according to the main request and the auxiliary request, does not involve an inventive step. This result is arrived at according to a first line of reasoning considering document D2 as closest prior art in combination with document D6 or document D7. According to a second line of reasoning the same result is obtained considering document D6 or D7 as closest prior art in combination with document D2.
- VI. In the annex to the summons to oral proceedings the Board expressed its preliminary opinion with respect to the first line of reasoning of the impugned decision referring to the features of the claimed display box as compared to the disclosures of documents D2, D6 and D7 in this respect. Concerning the second line of reasoning of the impugned decision, considering an argument in the grounds of appeal, the question was raised as to what the person skilled in the art can be expected to do concerning the stability of the box according to D6 or D7, in case its capacity is to be increased.
- VII. The appellant replied to said communication maintaining its main and first auxiliary requests filed with the grounds of appeal and filing second to fifth auxiliary requests with submission dated 5 April 2007. All auxiliary requests were replaced by a single auxiliary request at the oral proceedings held 10 May 2007.

VIII. The facts, evidence and arguments relied upon by the appellant may be summarised as follows:

Starting from document D2 as closest prior art as suggested by the first line of reasoning of the impugned decision, the skilled person would not arrive at the box according to claim 1 according to the main request or the auxiliary request in an obvious manner when attempting to improve the stability of the box intended for free standing use. This applies likewise taking additionally document D6 or D7 into account.

Evaluating inventive step of the display box according to claim 1 it needs to be taken into consideration that the skilled person to be considered is one being specialised in packaging of cigarette packs into boxes and active in this field and not a skilled person active in the less specialised field of packaging packs of different nature into boxes.

Furthermore due to the field of packaging of cigarette packs into boxes being highly specialised, certain constraints concerning the design of cigarette packs are given. In this respect it needs to be taken into account that in general cigarette packs are packaged in standard cartons, like the 200's cartons referred to in the introductory portion of the patent in suit and shown in D6 or D7. These cartons, and in particular their size, can be considered as being generally accepted by manufacturers, vendors and consumers alike, due to the longstanding and widespread use of cartons of this shape and capacity. Besides these predominantly used cartons other boxes might be used occasionally,

but to a far lesser extent. An example of this is the box according to D2 which is only of seasonal use, namely, as expressly stated, for the Christmas holidays.

The skilled person, in an attempt to improve an existing carton of the standard type like the one disclosed by document D7, can be expected to modify it in various details without, however, changing its character of being a standard carton. On the contrary, the skilled person can hardly be expected to redesign such a carton to such an extent that it loses its character of being of the standard type. The reason is that in doing so the carton would not only lose its general acceptance due to its deviation from the standard type but that furthermore its manufacture and filling would require extensive modification of the existing packing machines due to their dedication to cartons of the standard type.

Concerning the second line of reasoning of the impugned decision starting from document D7 as closest prior art, based on the effect of the distinguishing features, the problem to be solved with respect to claim 1 according to the main request can be seen to be in line with the one stated in the patent in suit as providing a compact, free standing box having improved stability.

Neither document D7 considered by itself nor consideration of this document in combination with one or more of the remaining documents leads in an obvious manner to the solution according to claim 1 according to the main request.

This holds true even more with respect to claim 1 according to the auxiliary request. The features further added to this claim result in the additional effect that all packs, including the two last ones in the lowest row, can be conveniently removed from the box, that it can easily be detected when the supply of packs contained in a box is coming to an end and that the packs are neatly exposed leading to an appealing display box. These effects lead to a box serving the storage and transportation of cigarette packs as well as a display purpose in an attractive manner.

Reasons for the decision

1. *Subject-matter of claim 1*

1.1 Claim 1 according to the main request is based on claim 2 as granted. It has been amended with respect to this claim essentially by adding the feature according to which the display box is "formed from a blank" and by limiting it to a box "which box contains two columns of cigarette packs".

1.2 Claim 1 according to the auxiliary request comprises further features defining the removable dispensing portion. According to these features, removal of the removable dispensing portion exposes "substantially more than" one row of the two columns of packs, "such that the second lowest row is fully exposed and a part of the row below is also exposed, whereby the lowest row of packs is removed after the packs above have been removed".

1.3 The Board has convinced itself that claims 1 according to the main request and the auxiliary request satisfy the requirements of Article 123(2) and (3) EPC.

The question of whether the amendments of claim 1 according to the auxiliary request pose a problem with respect to clarity (Article 84 EPC) was discussed in the oral proceedings, in particular with regard to which locations of a display box are addressed by referring to "the second lowest row", "part of the row below" and "the lowest row of packs".

In this respect the Board raised the question of whether or not these locations clearly define positions of the display box itself or whether the thus defined positions are meaningful only with respect to a certain arrangement of the display box in use, e.g. arranged on a support as shown in figure 1 of the patent in suit.

Since, however, as can be derived from the following, the appeal has to be dismissed due to lack of inventive step of the subject-matter of the claims 1 according to the main request and the auxiliary request, since at the oral proceedings the appellant declared its willingness to clarify claim 1 according to the auxiliary request when necessary and since claim 1 according to the auxiliary request can be understood for the purpose of examination of inventive step, this issue need not be further considered.

1.4 Claim 1 amended at the oral proceedings according to the auxiliary request has been admitted by the Board in the absence of the respondent, which has been duly summoned.

According to the Article 11(3) RPBA the Board shall not be obliged to delay any step in the proceedings, including its decision, by reason only of the absence at the oral proceedings of any party duly summoned who may then be treated as relying only on its written case.

This applies to the present case. The facts underlying the present decision with respect to claim 1 according to the auxiliary request have been known before, since the features added to claim 1 according to the auxiliary request as compared to claim 1 according to the main request are those of dependent claims 4 and 5 as granted, the position of the removable dispensing portion having furthermore been limited to the particular one disclosed in the description of the patent in suit (cf. column 4, lines 10 - 22; figures 1 - 4).

2. *Inventive step*

2.1 *Preliminary remarks*

In its examination of whether or not the claims 1 according to the main and the auxiliary request involve an inventive step (Article 56 EPC) the Board follows, in line with the jurisprudence of the Boards of Appeal (cf. Case Law of the Boards of Appeal of the EPO, chapter I.D.2.) the so called problem-solution approach.

Application of this approach has also been referred to by the appellant in its grounds of appeal (cf. page 3, "INVENTIVE STEP").

The Board agrees with the steps of the problem solution approach as given in the grounds of appeal, as they represent the steps normally taken in this respect, see e.g. T 1057/03 (not published in the OJ EPO) according to which, when applying the well established problem and solution approach "it is in particular necessary

- to establish the closest state of the art forming the starting point,
- to determine in the light thereof the technical problem which the invention addresses and effectively solves and
- to examine the obviousness of the claimed solution to this problem in view of the state of the art and common general knowledge ...".

2.1.1 Since application of the problem-solution approach in line with the second line of reasoning of the impugned decision, starting from document D7 as closest prior art, leads to the result that the claims 1 according to the main request and the auxiliary request do not involve an inventive step, the further approach adopted by the appellant, which follows the first line of reasoning of the impugned decision, needs not be further considered.

2.1.2 Concerning the skilled person to be considered in the evaluation of inventive step the Board is not convinced by the argument of the appellant, according to which the person skilled in the art for the present invention is an expert in the highly specialised field of packaging of cigarette packs and according to which such an expert would not rely on prior art from the neighbouring technical field of packing packs of

similar size filled with different items into a box, as it is the case with respect to document D6.

Although the Board can follow the argument in so far as it relates to the field of packaging cigarettes being highly specialised, e.g. in view of their delicate nature and the high volume of the items to be packed, it is of the opinion that these conditions are not of such a special nature, that the person skilled in the art is withheld from resorting to neighbouring fields of packaging, which differ from the field concerned only by the nature of the content of the packs. Indeed the Board is convinced that similar requirements may have to be observed in case packs filled with other items need to be packed with regard to the fragility of the items as well as to the speed in which such packs need to be arranged in boxes. Finally, with respect to the present case the Board notes that other than a reference to cigarette packs in claim 1 this claim does not comprise any features specifically directed to cigarettes being contained in the packs.

The Board is thus of the opinion that the skilled person is one active in the area of filling a number of small items, having approximately the size of cigarettes, into packs and arranging such packs in boxes, as it is e.g. the case for document D6, according to which e.g. small boxes of laundry tablets are packaged in boxes (cf. page 1, lines 1 - 5).

- 2.1.3 Concerning the knowledge of the skilled person the Board agrees with the appellant that he is aware of conventional boxes containing a generally accepted number of cigarette packs as e.g. indicated in the

patent in suit (column 1, lines 7 - 16). It further agrees with the argument of the appellant that modifying a box containing cigarette packs the skilled person would start from the conventional box and try to modify it as long as this is possible, since such an approach would have two advantages. The first one resides in the fact that the generally accepted shape and size of the box would be maintained. The second advantage is that without extensive and expensive adaptation being required the existing packaging machinery for the conventional boxes could still be used. The Board, however, cannot agree with the argument of the appellant according to which such advantages, which only in part are of a technical nature, would hinder the person skilled in the art to deviate from the conventional type of boxes in general. At least in a case like the present one, in which a disadvantage inherent to the design of the conventional box - namely insufficient stability of the box in free standing use - has to be dealt with, it is evident that despite its preference for the design of the conventional box the skilled person would take into consideration to abandon this design in case the disadvantage encountered cannot be dealt with easily while maintaining the conventional shape and size of the box.

2.2 *Claim 1 - main request*

Document D7 discloses, with respect to the display box according to claim 1, a display box formed from a blank, which box contains ... cigarette packs ..., said packs having a front and a rear panel, two longitudinal sides and a top and a bottom side, the packs being stacked in

a superimposed relationship, and the box having a removable dispensing portion, the removal of which portion exposes at least one row of the column of packs (cf. claim 1; column 1, lines 15 - 35; column 2, lines 35 - 44; figures 1 - 5). It is apparent that the known box, referred to in D7 as a dispenser (column 1, lines 15 - 18), is a display box such as the one according to claim 1, in that a cigarette pack is displayed once the dispensing portion has been removed (cf. figure 1).

- 2.3 The box according to claim 1 is distinguished from the box according to D7 in that it contains two columns of cigarette packs arranged side by side along the longitudinal side dimension of said packs.

The distinguishing features thus concern the **number of columns** of cigarette packs contained in the box and the **manner in which the two columns are arranged** with respect to each other and correspondingly the size and shape of the box which are required for such a containment.

- 2.4 Based on these distinguishing features their technical effect is an increased stability of the box, when used as a free standing display box. The objective technical problem to be solved with respect to D7 can be seen in increasing its stability when it is stood on end. The Board considers this problem to be a realistic one in view of D7 since this document discloses a box which, besides being suspendable, is intended to stand on its end (column 2, lines 36 - 44) and since it can be considered as being a natural design objective to increase the stability of such a box to enhance its capacity to serve as a free standing display unit.

As correctly pointed out by the appellant the distinguishing features do not relate to the number of cigarette packs contained in the box, so that the capacity of the box is of no concern with respect to the formulation of the problem.

2.5 The Board is convinced that this problem is solved by the display box according to claim 1, considering as **essential parameters with respect to the stability** of the box in question: its end, namely the **bottom area** on which it stands on a support and its **height**. According to the distinguishing features the bottom area is enlarged by having two columns of packs next to each other instead of the one according to D7 while, having the same number of cigarette packs in a box, its height is reduced by the same measure. It is immediately evident that by one single measure both parameters are modified in a direction which leads to increased stability of a free standing box.

2.6 If, starting from D7 the person skilled in the art (cf. section 2.1.2 above), is confronted with the technical problem to increase the stability of the box while it is free standing (cf. section 2.4 above), then it is obvious that the parameters at its disposal are the bottom area of the box and its height. Applying the generally known functional relationship between variations of these parameters and the stability of a free standing box, namely that an increase of the bottom area and its enhanced compactness lead to an improved stability and a decrease in height of the box, it is apparent that the box according to claim 1 does not involve an inventive step starting from D7 as

closest prior art and applying fundamental technical knowledge.

This results from the fact that in order to increase stability the skilled person has as the most simple parameters at its disposal only the overall dimensions of the box.

It is apparent that the size of the box can only be modified within the constraints imposed by the very nature of its content, namely the contained cigarette packs. Starting from the arrangement of the packs in one column as disclosed in D7 (cf. figures 1, 3 and 5) it is evident that in order to enlarge the bottom area of the box and/or to decrease its height, the number of columns, in which the packs are stacked, needs to be increased and that an obvious approach is to divide the single column shown in D7 into two. It is likewise evident that to enlarge the bottom area for a stable display box to result, the packs in the two columns are to be arranged as defined in claim 1, namely side by side along the longitudinal side dimension of the packs. Arranging the packs differently, namely side by side one pack in the direction of extension of the other, would lead to the immediately apparent drawback that the stability would only be increased in the direction in which the two columns would be arranged one after the other while in the transverse direction the instability would remain.

The box according to claim 1 results thus in an obvious manner from the free standing box disclosed in D7 when applying normal fundamental technical knowledge to

increase its stability. Claim 1 thus does not involve an inventive step (Article 56 EPC).

3. *Claim 1 - auxiliary request*

3.1 The box according to claim 1 of the auxiliary request differs from the box according to D7 by the **first group of distinguishing features** as referred to above with respect to claim 1 according to the main request, **having an effect on the stability of the box**, and by an additional, **second group of distinguishing features** further defining the position of the existing removable dispensing portion (32), its size in relationship to exposed packs of the two columns and the manner in which the lowest row of packs can be removed from the box and **affecting the manner in which cigarette packs are made available** to the customer.

3.2 In particular the second group of distinguishing features defines that the box has a removable dispensing portion, the removal of which portion exposes substantially more than one row of the two columns of packs, such that the second lowest row is fully exposed and a part of the row below is also exposed. A further feature of this group defines, based on the position of the removable dispensing portion as defined in claim 1, that the lowest row of packs is removed after the packs above have been removed.

Both groups of distinguishing features are essentially **independent from** each other in that each group leads to a different effect, independent of the effect obtained by the other group. The first group, dealt with in connection with claim 1 according to the main request,

has an effect on the stability of the box. The second group of distinguishing features is exclusively directed to the provision of the removable dispensing portion, namely its position and size, and the removal of the lowest row of packs after the packs above have been removed. They do not affect the stability of the box containing two columns of cigarette packs. There is thus no relationship in the form of a functional reciprocity between these effects.

- 3.3 The present case is thus one characterised by an aggregation of two sets of features which solve two independent problems. For the discussion of inventive step these two - partial - problems can according to the jurisprudence of the Boards of Appeal (see Case Law of the Boards of Appeal of the EPO, 5th edition 2006, chapter I.D.8.2.2) be treated separately.
- 3.4 Applying the problem and solution approach starting from D7 as closest prior art the partial problem based on the effects of the second group of distinguishing features can be seen in providing the removable dispensing portion such as to allow easy access to the packs contained in both columns (cf. patent in suit, column 4, lines 10 - 22).
- 3.5 The appellant agreed to the problem being formulated in this manner. It argued however, that in addition it needs to be considered that the box according to this claim 1 not only serves the purpose of containing cigarette packs during the transport of such packs, but also improves the manner in which cigarette packs are displayed by the box and consequently the market value of boxes provided with such dispensing openings.

The Board is of the opinion that such a further effect, which undoubtedly can add to the positive impression given by the boxes, cannot be considered in formulating the technical problem underlying this subject-matter of claim 1. The reason is that the appellant failed to prove that such an effect is of a technical nature and is based on technical features of claim 1. For completeness sake the Board notes that according to the jurisprudence of the Boards of Appeal (cf. Case Law of the Boards of Appeal of the EPO, chapter I.D.8.1.2), in case a claim comprises a mix of technical and non-technical features only the technical features should be considered in the evaluation of inventive step.

- 3.6 In a situation like the present, in which two groups of distinguishing features solve each a partial technical problem, examination of inventive step requires independent evaluation of the two solutions with respect to obviousness.

The solution according to the first group of distinguishing features concerning the stability of the free standing box does not involve an inventive step as established above (cf. section 2.6) with respect to claim 1 according to the main request.

- 3.7 The Board is of the opinion that likewise the solution according to the second group of features is obvious.

Starting from D7 the skilled person, having modified the known box such that it contains two columns of cigarette packs instead of one, naturally has to adapt the removable dispensing portion such that it exposes

one row of the two columns of packs, so as to allow access to a pack of each column.

Concerning the position of the removable dispensing portion basically two alternative positions are possible, which are, however, both obvious:

The first alternative is the one disclosed in D7, according to which the dispensing portion is positioned at the bottom end of the box. This position leads to the exposure of the lowest row of packs and has the effect that all packs of both columns can be removed one after the other by pulling them out of the box through this dispensing portion.

The second alternative is the one defined by claim 1 according to which the row of packs resting on top of the lowest row, namely the second lowest row, is exposed after removal of the dispensing portion. This position leaves the bottom of the box unchanged and allows removal of all packs above the lowest row of packs in the manner as it is the case for the lowermost row of packs in case the dispensing opening is positioned at the bottom of the box. Packs withdrawn from the box in such a manner slide over the lowermost row of packs and not over the interior of the bottom wall of the box. This facilitates the removal of the packs due to the lower friction existing between the packs as compared to the situation according to D7, where each pack which is removed has to slide over the interior of the bottom wall of the box.

- 3.8 The position of the dispensing opening exposing the second lowest row of packs having the above mentioned

positive effect still enables removal of the lowermost row of packs via this dispensing opening - not as easy as the packs of the rows above - but still in a not too difficult manner, since the distance from the dispensing opening to the lowermost row of packs is the smallest one possible. For this reason this position of the dispensing portion is the only true alternative to the one according to D7, since positioning the dispensing portion further upwards away from the bottom of the box, e.g. to allow access to the third lowest row would not add any distinctive advantage with respect to the removal of packs via the dispensing portion but would make the removal of the packs of the lower rows more cumbersome.

Providing the removable dispensing opening at the position so as to expose the second lowest row is thus an obvious design choice for the person skilled in the art in case the benefit of sliding of packs on each other during removal is to be obtained, while at the same time emptying of the box by removal of the lowest row of packs is not made too difficult.

- 3.9 In connection with the removal of the lowest row of packs the Board is of the opinion that it is apparent that, for an easy access of these packs, the dispensing portion is such that not only the second lowest row is fully exposed but, as further defined in claim 1, also a part of the row below, namely a part of the lowest row. If the dispensing portion would only be large enough to expose one row of packs then, as discussed at the oral proceedings, it appears to be very likely that a user tears away a portion of the wall of the box adjacent the dispensing opening to facilitate removal

of the lowest row of packs. The size of the dispensing portion being as defined in claim 1 thus takes, in the design of the box, account of something which can easily be foreseen as occurring during the use of the box.

- 3.10 Although the Board is of the opinion that the person skilled in the art recognises, based on its general knowledge, the two design alternatives with respect to the provision of the dispensing opening as indicated above and can make the design choice resulting in the provision of the dispensing opening so as to expose the second lowest row of packs and a part of the row below, it refers, for completeness sake, also to document D6.

According to this document a dispensing portion is provided such that the second lowest row of packs is exposed (cf. figures I - III). Although the appellant objected to document D6 being taken into consideration by the person skilled in the art, based on its understanding of this nominal skilled person, the Board is of the opinion that the skilled person to be considered under the present circumstances is one which does take the box according to D6 into account in order to solve the partial problem concerning the removal of packs stacked in a column in a box (cf. section 2.1.2 above).

Also the box disclosed in D6 has a removable dispensing portion located at the second lowest pack (see page 2, lines 1 - 7), which is large enough to allow also removal of the lowest pack.

Both solutions being obvious, the Board concludes that the box according to claim 1 of the auxiliary request does not involve an inventive step (Article 56 EPC).

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

G. Nachtigall

H. Meinders