Case Number: T 0963/03 - 3.2.07
Application Number: 96115304.6
Publication Number: 0764582
IPC: B65B 19/10
Language of the proceedings: EN
Title of invention:
Method for forming and transferring groups of cigarettes on a packing machine with multiple wrapping lines
Patentee:
G.D SOCIETÀ PER AZIONI
Opponent:
Hauni Primary International GmbH
Headword:
-
Relevant legal provisions:
EPC Art. 54, 56
Keyword:
"Oral prior disclosure - not proven"
"Inventive step - no"
Decisions cited:
-
Catchword:
-
Case Number: T 0963/03 - 3.2.07

DEdISION
of the Technical Board of Appeal 3.2.07
of 27 September 2006

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Composition of the Board:
Chairman: H. Meinders
Members: P. O'Reilly
C. Holtz
H. Felgenhauer
B. Müller
Summary of Facts and Submissions

I. Opposition was filed against European patent No. 0 764 582 as a whole and based on Article 100(a) EPC (lack of inventive step). In a subsequent submission the ground of lack of novelty based on a prior oral disclosure was cited.

The opposition division decided to maintain the patent in accordance with the auxiliary request of the proprietor. The opposition division held that the subject-matter of independent claims 1 and 6 of the main request (patent as granted) was not novel in view of the prior oral disclosure, but that the subject-matter of independent claim 1 of the auxiliary request was novel and involved an inventive step (independent claim 6 was deleted).

II. Appellant I/respondent II (proprietor and hereinafter referred to as appellant/proprietor) and appellant II/respondent I (opponent and hereinafter referred to as appellant/opponent) each filed an appeal against the decision.

III. The appellant/proprietor as appellant requested that the decision under appeal be set aside and the patent be maintained unamended (main request) or as maintained by the decision under appeal (auxiliary request). As respondent the appellant/proprietor requested that the appeal of the opponent be dismissed.

The appellant/opponent as appellant requested that the decision under appeal be set aside and that the patent be revoked. As respondent the appellant/opponent
requested that the appeal of the proprietor be dismissed.

IV. Oral proceedings were held before the Board on 27 September 2006.

V. The independent claims of the patent as granted (main request) read as follows:

"1. A method of forming and transferring groups of cigarettes on a multiple-line packing machine with a given number of wrapping lines; each said group (13) being fed into a respective pocket (11) of a conveyor (10), which is moved intermittently in steps of a length equal to the spacing between two consecutive said pockets (11) multiplied by said given number; characterized in that each said group (13) comprises a number of superimposed layers (9) fed successively into the respective said pocket (11) by push means (14) for successively expelling the layers (9) from the bottom of respective outlets (4) of a feedbox (3); said outlets (4) being equal in number to the number of layers (9) forming each said group (13) multiplied by said given number; respective layers (9) being expelled simultaneously from the outlets (4) of said feedbox (3) and fed into respective said pockets (11) at each stop of said conveyor (10); and, at each stop of said conveyor (10), respective groups (13) being expelled from a number of the pockets (11) equal to said given number, and supplied to an operating unit (20) of said packing machine (2)."
"6. A device for forming and transferring groups of cigarettes on a multiple-line packing machine with a given number of wrapping lines; the device comprising a conveyor (10) having a plurality pockets (11), in each of which a respective said group (13) is fed; and drive means (10') for moving conveyor (10) intermittently in steps of a length equal to the spacing between two consecutive said pockets (11) multiplied by said given number; characterized by comprising push means (14) to feed successively a number of superimposed layers (9) into the respective said pocket (11) for successively expelling the layers (9) from the bottom of respective outlets (4) of a feedbox (3); said outlets (4) being equal in number to the number of layers (9) forming each said group (13) multiplied by said given number; said push means (14), at each stop of said conveyor (10), simultaneously expelling respective layers (9) from the outlets (4) of said feedbox (3), and feeding said layers (9) into respective said pockets (11); and further push means (16) being provided for expelling respective groups (13), at each stop of said conveyor (10), from a number of pockets (11) equal to said given number, and supplying said groups (13) to an operating unit (20) of said packing machine (2)."

The independent claim of the patent as maintained amended by the opposition division (auxiliary request) reads as follows (amendments when compared to claim 1 of the main request are depicted in bold):

"1. A method of forming and transferring groups of cigarettes on a multiple-line packing machine with a given number of wrapping lines; each said group (13) being fed into a respective pocket (11) of a conveyor
(10), which is moved intermittently in steps of a length equal to the spacing between two consecutive said pockets (11) multiplied by said given number; characterized in that each said group (13) comprises a number of superimposed layers (9) fed successively into the respective said pocket (11) by push means (14) for successively expelling the layers (9) from the bottom of respective outlets (4) of a feedbox (3); said outlets (4) being equal in number to the number of layers (9) forming each said group (13) multiplied by said given number; respective layers (9) being expelled simultaneously from the outlets (4) of said feedbox (3) and fed into respective said pockets (11) at each stop of said conveyor (10); and, at each stop of said conveyor (10), respective groups (13) being expelled from a number of the pockets (11) equal to said given number, and supplied to an operating unit (20) of said packing machine (2); the outlets (4) of said feedbox being divided into a number of sets (21) equal to said given number; the spacing between the outlets (4) in each said set (21) being equal to the spacing between said pockets (11) multiplied by said given number; and, when said intermittent conveyor (10) is stopped, each pair of said sets (21) being separated by a number of pockets equal to said given number."

VI. The documents cited in the present decision are the following:

D2: DE-A-24 54 289
D3: DE-C-33 31 745
D4: GB-A-1 137 826
D6.1: Drawing of part of a cigarette packing machine
D6.2: Drawing of part of a cigarette packing machine
VII. The arguments of the appellant/proprietor may be summarised as follows:

(i) The alleged oral disclosures were not public. It is clear from the fact that during the meetings mentioned by the witnesses the drawings in question were shown but not given to the employees of the respective customers. This was done in order to ensure that the information contained in the drawings remained confidential. Without the drawings it would not have been possible for the employees of the customers to remember the details of the machines that were discussed during the meetings. The appellant/opponent later filed patent applications which were directed to details contained in the drawings, which also shows that their disclosure during the meetings must have been confidential. As proven by the affidavits A1 to A3, members of the technical and patent services of the appellant/proprietor did not hear anything about the machine which was discussed at these meetings which shows that the information did not spread beyond the participants in the meetings. It is shown by the affidavit of Mr Pudritz (A13) that it was not normal in the
tobacco industry to divulge information about innovations obtained in individual discussions.

(ii) The subject-matter of the independent claims 1 and 6 of the main request is novel and involves an inventive step. The closest prior art document is D2 which discloses a method according to the preamble of claim 1. The problem to be solved by providing the additional features of the characterising portion of claim 1 is to improve the speed of forming groups of cigarettes whilst maintaining a good quality. The formation of a group of cigarettes by layers is a slower process than forming the group as a block. This is proven in the submission of the appellant/proprietor dated 13 April 2004 wherein theoretical calculations show that forming a group of cigarettes by layers is slower than forming the group as a block. The skilled person would therefore not consider either of D4 or D7. Even if the skilled person did consider either of these documents and combined their teaching with that of D2 he still would not arrive at a method with the features of claim 1 since none of the cited documents discloses a group forming device in which the outlets are equal in number to the number of layers forming each said group multiplied by said given number as specified in the claim. Moreover, a large number of technical modifications to the machines would be necessary if it was desired to combine the teaching of D2 with that of either of D4 or D7.
The packing machine disclosed in D3 is not relevant as there is no double wrapping line attached to the cigarette group forming device disclosed therein and the machine only operates in a single step mode.

(iii) The subject-matter of claim 1 of the auxiliary request involves an inventive step. As already explained with respect to the main request, the skilled person would not combine the teachings of the cited documents. Also, for the same reasons as already explained with respect to the main request, the combination of the cited documents would not lead to all the features of the method of claim 1 of this request.

VIII. The arguments of the appellant/opponent may be summarised as follows:

(i) It has been shown by the testimonies of the three witnesses heard that the concept of a new machine which works according to the method set out in claim 1 of the main request was communicated to potential customers before the priority date of the patent in suit during meetings with employees of the potential customers. The witnesses further testified that there was neither a written nor a tacit confidentiality agreement. It was moreover the purpose of the meetings with the potential customers to explain that a new packing machine would be coming on the market and thus to delay any order of such machines that the customers might have been contemplating until the machines arrived on the market. To this end it was intended
that the information should circulate within these companies. There was thus no interest on the part of the appellant/opponent in maintaining confidentiality.

(ii) The subject-matter of claim 1 of the main request is novel over the documentary prior art but does not involve an inventive step. The nearest prior art document is D2. The problem to be solved compared to the disclosure of this document is to increase the speed of the cigarette group forming device. The skilled person knows from D7 that a machine which forms a group of cigarettes by layers does so faster than a machine which forms the group as a block. Therefore, the skilled person would apply the teachings of D7 to a machine according to D2 and arrive at the subject-matter of claim 1. The same applies to D4 which also discloses a device forming groups of cigarettes by layers. The skilled person would carry out any necessary constructional adaptation.

The subject-matter of claim 1 of the main request also does not involve an inventive step starting from D3.

(iii) The above arguments with respect to lack of inventive step also apply to claim 1 of the auxiliary request.
Reasons for the Decision

1. Prior oral disclosure

1.1 The oral disclosure was alleged to have taken place during meetings between employees of the appellant/opponent and employees of two potential customers. Two meetings were held with two different employees of R. J. Reynolds Tobacco. At that time the appellant/opponent was developing a new cigarette packing machine. The machine was still a project and indeed the first machine was not sold until more than three years after the meetings took place. The purpose of the meetings from the point of view of the appellant/opponent was to make the potential customers unsure for the case that they were considering ordering new machines, so that they should then wait with any orders until they had seen the machine from the appellant/opponent when it was completed and ready for sale.

1.2 The appellant/opponent alleges that these meetings were not confidential and that the subject-matter of claims 1 and 6 of the patent as granted was disclosed to the potential customers during these meetings.

The main evidence for a prior oral disclosure is the witness testimonies of three persons who were employed by the appellant/opponent at the time of the alleged disclosure and took part in these meetings. These witnesses testified to the lack of written or tacit confidentiality agreements during these meetings and that the participants from the customers were free to
disseminate the information received during the meetings.

The information received by the customers was of two types. First of all, there was general information that the appellant/opponent was developing a double line packaging machine which would have a higher capacity than the existing machines. Secondly, there was specific information regarding how this increase in capacity would be achieved for forming the groups of cigarettes. The specific information was provided in the form of an oral explanation using the drawings D6.1, D6.2, D6.5 and D6.6, without, however, handing these drawings over to the employees of the customers. It is this specific information which could take away the novelty of the method of claim 1, if it were publicly available.

1.3 Against this evidence the appellant/proprietor filed affidavits (A1 to A3) from three of its own employees to the effect that before the priority date they had not heard about the machine being planned by the appellant/opponent. The appellant/proprietor further filed an affidavit (A13) from an employee (Mr Pudritz) of a tobacco company to the effect that individual discussions concerning innovations were kept confidential.

1.4 The prior oral disclosure concerns employees of the opponent itself. Since all the evidence in respect of this prior disclosure is in the hands of the appellant/opponent, the standard of proof for considering this prior disclosure is high (see T 472/92 OJ EPO 1998, 161). In the opinion of the Board the
witness testimony cannot prove that the employees of the customers participating in these meetings would treat the information received in the meetings as non-confidential. The witnesses heard, all employees of the appellant/opponent, were only in a position to state how they personally considered the status of information transmitted by them. However, the persons who can witness whether or not the information which was received was considered confidential are those persons who received that information, i.e. the employees of the potential customers who took part in the meetings with employees of the appellant/opponent. These persons were not heard as witnesses, nor were any statements from these persons filed during the proceedings. One of the persons (Mr Lockamy) was summoned as a witness, but he neither responded to the summons nor appeared as a witness. Taking account in particular of the lack of evidence regarding the later treatment of the received information by the potential customers the Board concludes that it has not been proven that the recipients of the information considered that all the information provided to them during the meetings, i.e. both the general information and the specific information, was non-confidential.

Accordingly, the Board concludes that the oral prior disclosure has not been proven to have been public before the priority date of the patent in suit.
Main request

2. Novelty

2.1 The part of the decision of the opposition division which found that claim 1 of the patent as granted lacked novelty was based exclusively on the alleged oral prior disclosure being considered proven. The appellant/opponent presented no arguments of lack of novelty based on the prior art documents and the Board also does not consider that any of the prior art documents takes away the novelty of either of claims 1 or 6 as granted.

2.2 Therefore, the subject-matter of claims 1 and 6 of the patent as granted is novel in the sense of Article 54 EPC.

3. Inventive step

3.1 The closest prior art document is D2 which discloses a method comprising the features of the preamble of claim 1 wherein the "given number" specified in the claim is two. In addition, D2 discloses the feature of the characterising portion of the claim whereby at each stop of said conveyor, respective groups of cigarettes are expelled from a number of the pockets equal to said given number (they are expelled from two pockets at P7 and P8), and supplied to an operating unit (the foil feeding unit FF) of the packing machine.
3.2 The subject-matter of claim 1 is therefore distinguished from the disclosure of D2 by the features that:

each said group comprises a number of superimposed layers fed successively into the respective said pocket by push means for successively expelling the layers from the bottom of respective outlets of a feedbox; said outlets being equal in number to the number of layers forming each said group multiplied by said given number; respective layers being expelled simultaneously from the outlets of said feedbox and fed into respective said pockets at each stop of said conveyor.

3.3 The objective problem to be solved by the distinguishing features is to increase the speed of forming the groups of cigarettes. This is indicated in the patent in suit in column 1, lines 41 to 46 wherein the slowness of forming cigarette groups in the manner of D2 is mentioned, and in column 1, lines 47 to 50 wherein the object of the invention is stated to be the rapid forming and transferring of groups of cigarettes.

The appellant/proprietor argued that the method of forming the groups of cigarettes set out in the characterizing portion of claim 1 was not faster than the method used in D2 so that the problem to be solved was to provide fast formation of the groups whilst maintaining good quality. The Board cannot accept the argument of the appellant/proprietor in this respect. First of all, it contradicts what is stated in the patent in suit as indicated above. Secondly, the statements in the patent in suit are supported by D7 which explains on page 1, second paragraph, last
sentence, that forming the group of cigarettes by layers is faster than forming them as a block. The appellant/proprietor in its submission of 13 April 2004 provided a theoretical calculation of the times required to form a group of cigarettes as a block and to form it by layers. According to this calculation it takes longer to form the group by layer than to form the group as a block. This theoretical calculation cannot, however, disprove the practical statements made both in the patent in suit and in D7, which indeed represent the knowledge of the skilled person. Thirdly, the patent in suit contains no information regarding an improvement in quality by forming of the groups by layers, nor has the appellant/proprietor given any specific indications of the aspects of quality that were improved by forming the groups of cigarettes by layers.

3.4 The solution to the problem is obvious for the following reasons:

3.4.1 D7 explains on page 1, second paragraph, last sentence, that forming the group of cigarettes by layers is faster than forming them as a block. This is a general statement which explains the general knowledge of the person skilled in the art with regard to the formation of groups of cigarettes. The statement is thus not limited to the particular cigarette packing machines disclosed in D7. Based on this general knowledge the skilled person would consider machines which form groups of cigarettes in layers when wishing to solve the objective problem.
3.4.2 D4 discloses such a cigarette group forming device in which each group of cigarettes comprises a number (three) of layers fed successively into a respective pocket by a push means 48 for successively expelling layers from the bottom of respective outlets (position 25a) of a feedbox 21; respective layers being expelled simultaneously from the outlets of said feedbox and being fed into respective said pockets at each stop of said conveyor.

The skilled person would consider applying this teaching of D4 to the machine disclosed in D2 since an increase in speed could be expected based on this general knowledge.

3.4.3 In the machine disclosed in D2 two groups of cigarettes are each formed as a block and then pushed simultaneously into two pockets of the conveyor belt (see page 11, seventh to second lines from the bottom of the page). The conveyor is moved in double steps with a distance equal to twice the distance between pockets. The skilled person considering incorporating the teaching of D4 into the machine of D2 would know that the conveyor must be kept operating in a double step mode in order to keep up the speed and that the cigarette group forming device must provide two groups of cigarettes at each step. This means that he would have to provide two group forming devices of the type known from D4 to replace respectively the two devices P1 and P2 in the machine disclosed in D2 in order to ensure that an improvement in the capacity is achieved.

The skilled person would still have to decide how to arrange these two devices in the machine known from D2.
The most straightforward way to do this would be to replace each of the cigarette group forming devices P1 and P2 disclosed in D2 by one of the devices known from D4. When this is done and the conveyor is operated with a double step action as taught in D2 the first upstream group forming device will fill every alternate pocket of the conveyor with cigarettes since the spacing between the outlets from which each of the layers of cigarettes is inserted is equal to twice the distance between the pockets. The second downstream group forming device will also fill alternate pockets of the conveyor with cigarettes. If the two group forming devices are arranged side-by-side with a two pocket spacing between each outlet as in D4, then the second group forming device in fact would attempt to fill exactly those alternate pockets which have already been filled by the first device. The skilled person would recognise this problem, at the latest when actually testing the machine. Performing such a test cannot, however, be seen as inventive effort by the skilled person.

It is quite clear to a skilled person that, in order to arrange that the second device fills the unfilled pockets an extra spacing between the devices must be provided which is equal to the spacing between two pockets. The downstream outlet of the first device and the upstream outlet of the second device are then separated by two pockets, as in figure 3 of the patent in suit.

3.4.4 With the arrangement which the skilled person would reach in this way, the resulting machine would have the number of outlets as six which is equal to the number
of layers forming each said group (i.e. three) multiplied by the given number (i.e. two in this case). The arrangement would thus incorporate the remaining feature of claim 1 which is not disclosed in D2 or D4. This arrangement indeed corresponds to that of figure 3 of the patent in suit.

3.4.5 The skilled person would thus arrive at the subject-matter of claim 1 in an obvious manner.

3.5 Therefore, the subject-matter of claim 1 of the patent as granted (main request) does not involve an inventive step in the sense of Article 56 EPC.

Auxiliary request

4. Amendments

4.1 This request corresponds to the patent as maintained amended by the opposition division and claim 1 of the request is a combination of claim 1 as granted and the features of claim 5 as granted which was optionally directly dependent on claim 1. Claims 4 to 10 as granted have been deleted.

The Board is satisfied that the amendments meet the requirements of Article 123(2)(3) EPC.

5. Inventive step

5.1 Independent claim 1 of this request is directed to the embodiment of figure 3 of the patent in suit. In the discussion of the lack of inventive step of the method of claim 1 of the main request the Board has concluded
that the skilled person would apply the teaching of D4 to the machine known from D2 and arrive at a device in accordance with the embodiment of figure 3. In D4 the spacing between each of the outlets which forms a group of cigarettes is twice the spacing between the pockets (this is visible in figure 1) which corresponds to the first extra feature of this claim compared to claim 1 of the main request when the given number is two. Also, as explained above with respect to claim 1 of the main request the skilled person would realise that in order for the arrangement of two group forming devices according to D4 to work together correctly there would have to be an extra space between the two devices in addition to the extra space that each device has already between successive outlets. This would result in two pockets between the devices, i.e. between the sets of outlets as specified in the claim, which corresponds to the second feature added to this claim when compared to claim 1 of the main request when the given number is two.

For the reasons already explained with respect to claim 1 of the main request the skilled person would hence also arrive in an obvious manner at a device in accordance with claim 1 of the auxiliary request.

5.2 Therefore, the subject-matter of claim 1 of the patent as maintained by the opposition division (auxiliary request) does not involve an inventive step in the sense of Article 56 EPC.
Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The appeal of the patentee is dismissed.

3. The patent is revoked.

The Registrar:      The Chairman:

G. Nachtigall      H. Meinders