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**D E C I S I O N**  
of 31 May 1995

**Case Number:** T 0211/92 - 3.2.2

**Application Number:** 82301882.5

**Publication Number:** 0063891

**IPC:** A61C 5/06

**Language of the proceedings:** EN

**Title of invention:**

Ejector holder for capsule-like cartridge

**Patentee:**

DENTSPLY INTERNATIONAL, INC.

**Opponent:**

Centrix Inc,

**Headword:**

DENTAL GUN/DENTSPLY

**Relevant legal provisions:**

EPC Art. 56, 107, 123(2)

**Keyword:**

"Entitlement to appeal - proprietor"

"Inventive step (yes) after amendments"

**Decisions cited:**

T 0017/86

**Catchword:**

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Case Number: T 0211/92 - 3.2.2

**D E C I S I O N**  
of the Technical Board of Appeal 3.2.2  
of 31 May 1995

**Appellant:**  
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**Respondent:**  
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**Representative:** Bayliss, Geoffrey Cyril  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office dated 9 January 1992  
revoking European patent No. 0 063 891 pursuant to  
Article 102(1) EPC.

**Composition of the Board:**

**Chairman:** H. Seidenschwarz  
**Members:** M. Bidet  
M. Auz Castro

### Summary of Facts and Submissions

I. On 9 March 1992 the Patentee filed an appeal against the decision of the Opposition Division, issued on 9 January 1992 revoking European patent No. 0 063 891 because of lack of inventive step with regard to documents US-A-4 198 756 (D1) and US-A-3 076 455 (D2). The appeal fee was paid on the same date and the statement setting out the grounds of appeal was received on 15 May 1992 together with a new Claim 1 which was amended a second time and reads as presented in the oral proceedings, held on 31 May 1995 as follows:

"A manually operable ejector holder in combination with a cartridge (34) loaded with viscous dental filling material or cement and the cartridge having a body, having an annular collar (56) on one end and a discharge tip (64) on the front end, said holder comprising an elongate barrel (10) having forward (16) and rearward (14) ends, a plunger (18) reciprocal therein and one end (30) thereof projecting beyond said rearward end (14) of said barrel (10), a handle (22) connected to said rearward end (14) of said barrel (10) and extending substantially transversely to the axis thereof, a lever (24) manually operable relative to said handle (22) and barrel (10) to reciprocate said plunger (18) to the front end of said barrel (10) for engagement with the cartridge (34) when disposed therein, and the forward end (16) of the barrel being cutaway longitudinally a limited distance from the forward extremity to provide a compartment (32), having sidewalls (36,38) extending over more than 180°, and the outer portions (40,42) of the sidewalls (36,38) of said compartment (32) having limited flexibility and extending toward each other a slightly lesser distance than the diameter of said compartment (32) to effect a snapacting retaining means

for a first portion of the body of the cartridge (34) when inserted into said compartment (32), an undercut groove (58) being formed in said compartment (32) within said sidewalls (36,38) to receive the annular collar (56), the sidewalls (36,38) of said compartment (32) at the rearward end thereof being recessed laterally (52,54) a greater distance than the diameter of said annular collar (56) on the cartridge to permit the collar (56) thereon to be inserted into said compartment (32) incident to being moved axially forward for disposition into said undercut groove (58), with the cartridge discharge tip (64) and a second portion of the body extending forward from the extremity of the barrel (10)."

II. The Appellant made the following submissions:

Document D1 disclosed the prior art coming closest to the subject-matter according to new Claim 1. The cartridge used in the known ejector was held securely in the barrel by means of an annular collar. Since this cartridge had to be inserted into the barrel through a breech opening formed in the barrel a curved cartridge was required. This presented difficulties during insertion of the cartridge into the barrel or its removal. During extrusion of the viscous dental filling material the piston could cause distortion or bursting of the cartridge due to its curved shape, with the result that the cartridge would be wedged in the barrel and could not be removed. The problem to be solved was therefore to avoid these disadvantages. The solution entailed using a holder having a wide gap in the barrel provided with snap-acting retaining means, which allowed easy insertion and removal of the cartridge and which held the cartridge in a secure position during operation.

Document D2 disclosed a holder for a hypodermic syringe cartridge and therefore belonged to a different technical field. A cutaway extended on the entire length of the holder which provided a snap-acting retaining means for the cartridge, and an annular external collar on the cartridge entered an internal groove of the holder during lateral insertion of the cartridge so that any longitudinal movement was prevented. Since the holder was held by the operator's hand, its concept was different to that of an ejector according to document D1.

The teaching of new Claim 1 was therefore novel and involved an inventive step with respect of the teachings of the documents D1 and D2, considering, inter alia, that the skilled person had no reason to combine the teaching of D2 with that of D1, since they not only related to different technical fields but contained opposed or incompatible solutions. Even if the known teachings were combined, one would not reach the claimed solution.

III. The respondent argued as follows:

There was no appeal possible against the decision of the Opposition Division, since the Appellant, by filing an amended Claim 1 with its grounds of appeal, had accepted the decision of the opposition Division that the subject-matter of Claim 1 as granted did not involve an inventive step, and thus consented to the decision.

The amended Claim 1 included a part of the features of the dependent Claim 2, which part was technically linked with the remaining features of Claim 2, so that, in accordance with decision T017/86 (OJ of the EPO, 1989, 297 or 415), the amendments contravened the requirement of Article 123(2) EPC.

The feature of new Claim 1 that the cartridge was loaded with a viscous "dental filling" material or "cement" did not add anything inventive to the subject-matter of this claim. Furthermore, the feature of Claim 2 added to Claim 1 as granted concerning the enlarged space extending rearward from the compartment was also disclosed in document D1, and a longitudinal forward movement of the cartridge took place during insertion of the cartridge within the compartment of the barrel so that the cartridge was firmly maintained longitudinally by its annular collar.

The shape of the cartridge and its size relative to the barrel was not a feature of new Claim 1 and the way of loading the ejector was a matter of design. In any case, document D1 provided a solution to the problem of holding securely the cartridge in the ejector.

As to the features by which the subject-matter of Claim 1 was distinguished from the prior art according to document D1 and which were mentioned in the decision under appeal (see point 3.2), namely :

- the forward end of the barrel being cutaway longitudinally,
- the sidewalls of the compartment having limited flexibility, and
- the sidewalls extending towards each other "a slightly lesser distance than the diameter of said compartment to effect a snap-acting retaining means for a first portion of the body of the cartridge when inserted into said compartment, an undercut groove being formed in said compartment within said sidewalls to receive the annular collar",

these features were disclosed by the embodiment according to Figure 12 of document D2. This design of the holder permitted that the cartridge might be snapped into and out of the holder by lateral movement as it could be learned from the description in column 2, lines 61 to 71.

The teachings of documents D1 and D2 were compatible since the technical field of the dental ejectors found its origin from the development of the syringe field. It was therefore obvious to combine the teachings of these documents.

IV. The Appellant (Proprietor of the patent) requested that the decision under appeal be set aside and that the patent be maintained on the basis of Claims 1 and 2 filed during oral proceedings, Claims 3 to 13 as granted, the adapted description also filed during the oral proceedings and Figures 1 to 10 as granted.

The Respondent (Opponent) requested that the appeal be dismissed.

#### **Reasons for the Decision**

1. *Entitlement to appeal*

The Appellant was entitled to appeal. The Respondent's allegation that an appeal was no longer possible because the Appellant had implicitly accepted the decision of the Opposition Division is erroneous.

According to Article 107 EPC, first sentence, any party adversely affected by a decision may appeal. There is no doubt that, by the decision of the Opposition Division

revoking the patent, the Patentee was adversely affected and, therefore, was entitled to appeal. The question whether a party accepts a decision as being correct with respect to the matters argued before the first instance is of no relevance to its entitlement to appeal. A party adversely affected who accepts that a decision is correct, can always appeal either by seeking to support an amended Claim if he is the Patentee or by seeking to rely on other circumstances of he is the Opponent

2. *Admissibility of the appeal*

The appeal is admissible because it fulfils all the requirements laid down in Article 108 EPC.

3. *Amendments*

The features added to Claim 1 of the patent as granted relate firstly to the "viscous material" which is now a "viscous dental filling material or cement" and secondly to the "side walls (36,38) of said compartment at the rearward end thereof being recessed laterally (52,54) a greater distance than the diameter of said annular collar (56) on the cartridge to permit the collar (56) thereon to be inserted into said compartment (32) incident to being moved axially forward for disposition in to said undercut groove (58)".

3.1 The first feature, which defines the material in the cartridge, is disclosed in the description of the application as filed (see page 8, lines 13 to 15) and of the patent in suit (column 6, lines 9 and 10).

3.2 The second feature is disclosed in essence in the description of the application as filed, page 7, lines 14 to 22, as well as in column 5, lines 30 to 40, and in Claim 2 of the patent as granted.



The respondent argued that this feature was a part of the features of Claim 2 of the patent as granted and therefore could not be taken apart from the remaining features of Claim 2, since they were functionally and technically interrelated.

According to the headnote of the decision T 17/86 cited by the Respondent, a technical feature taken in isolation from the application as filed can be introduced into a Claim without offending against Article 123(2) EPC if the application as filed unmistakably shows that the combination of technical features in the new Claim thus amended is sufficient to produce the result sought in the application.

The design of the sidewalls of the compartment as specified in Claim 2 of the application as filed and of the patent as granted which is now cited in new Claim 1 permits the annular collar on the cartridge to be inserted into the compartment incident to being moved axially forward for disposition into the undercut groove.

The remaining features of Claim 2 of the patent as granted specify constructional details of the undercut groove which prevent the lateral removal of the cartridge from the compartment.

According to the description as filed (page 7, lines 2 to 6, 23 to 28) and of the patent as granted (see column 3, lines 14 to 23, 41 to 48), however, the snap fitting arrangement provided for by the upper edges of the sidewalls retains the cartridge already alone when the latter is inserted in the compartment.

It follows, that the subject-matter of Claim 1 as amended is sufficient to produce the sought result of easy insertion and secure retainment of the cartridge in the compartment and its easy removal therefrom.

There is therefore no objection under Article 123(2) EPC arising from the above cited amendments. Since the added features also reduce the scope of the protection, the amended Claim 1 meets also the requirement of Article 123(3) EPC.

4. *Prior art*

- 4.1 Document D1 discloses a manually operable ejector holder in combination with a cartridge loaded with viscous dental filling material or cement and the cartridge having a body having an annular collar on one end and a discharge tip on the front end, said holder comprising an elongated barrel having forward and rearward ends, a plunger reciprocal therein and one end thereof projecting beyond said rearward end of said barrel, a handle connected to said rearward end of said barrel and extending substantially transversely to the axis thereof, a lever manually operable relative to said handle and barrel to reciprocate said plunger to the front end of said barrel for engagement with the cartridge when disposed therein. The barrel is cutaway longitudinally to provide sidewalls extending over more than 180°. The sidewalls of the barrel have laterally a greater distance than the diameter of said annular collar on the cartridge to permit the collar thereon to be moved axially forward for disposition into the front opening. Furthermore, the cartridge discharge tip and a second portion of the body extends forward from the extremity of the barrel.

An object of the teaching of document D1 is to provide a manual extruder for accurately and precisely dispensing heavy flowable materials in a manner whereby maximum pressure can be imparted to the material to effect the extrusion thereof with a minimum of applied force being imparted thereto by an operator, (see column 1, lines 32 to 37).

Document D1 does not disclose :

- (a) the forward end of the barrel being cutaway longitudinally a limited distance from the forward extremity to provide a compartment,
- (b) the sidewalls of the compartment having limited flexibility,
- (c) the sidewalls of the compartment extending toward each other a slightly lesser distance than the diameter of said compartment to effect a snap-acting retaining means for a first portion of the body of the cartridge when inserted into the compartment,
- (d) an undercut groove being formed in the compartment within the sidewalls to receive the annular collar, and
- (e) the sidewalls of the compartment at the rearward end thereof being recessed laterally a greater distance than the diameter of the annular collar on the cartridge to permit the annular collar to be inserted in the compartment incident to being moved axially forward for disposition into the undercut groove.

4.2 The holder for disposable medicament cartridge disclosed in document D2 is formed as a channel having an opening along one side thereof through which the cartridge may be snapped into and out of the holder by lateral movement. The width of the opening is less than the maximum width of the cartridge and the channel is formed by stiff springy material so that the holder may be distorted momentarily to permit the insertion and removal of the cartridge (see column 2, lines 61 to column 3, line 3). According to the embodiment of Figure 12, the cartridge has an external annular bead at one end thereof. The channel of the holder is quite short and has an internal groove or depression to receive the bead. The cartridge is snapped into the side opening of the holder defined by edges such that the bead enters the groove. Lateral movement between the holder and the cartridge is prevented by the snug engagement of the inner walls of the channel with the outer walls of the cartridge, which further prevents a longitudinal movement (see column 5, lines 27 to 41)

It is an object of the teaching of the document D2 to provide a hypodermic syringe cartridge holding device that is simpler to manufacture and use and which can be made at sufficiently low cost to permit disposal of the holder along with the cartridge, if desired.

Document D2 does not disclose a manually operable ejector holder receiving a cartridge loaded with viscous dental filling or cement. Furthermore, the holder does not comprise an elongated barrel, a plunger, a handle and a recess rearwardly from the internal groove.

5. *Novelty*

From the above, it results that there is no document disclosing in combination all the features of Claim 1, namely a manually operable ejector holder of the gun type for ejecting viscous dental material loaded in the cartridge in which the cartridge is maintained within the barrel by snap-acting means from the end of the barrel, an under cut groove being formed within the sidewalls to receive the annular collar of the cartridge and the side walls being recessed laterally at the end of the compartment which receives the cartridge.

The subject matter of Claim 1 is therefore to be considered novel within the meaning of Article 54(2) EPC.

6. *Inventive step*

6.1 As specified by the Appellant during oral proceedings the problem to be solved in view of the drawbacks of the device according to document D1 is to provide a manually operable ejector holder in combination with a cartridge for dental filling material which allows easy insertion of the cartridge into the holder, its easy removal after use and a secure holding and operation of the cartridge during the injection process (see column 5, lines 41 to 47; column 7, lines 41 to 49).

6.2 This object is achieved by the features by which the subject-matter of Claim 1 differs from the device disclosed in document D1 which features have been cited above (see point 4.1).

6.3 Document D1 teaches the lateral insertion of the cartridge through a breach opening of the barrel, followed by the insertion of the cartridge through a

ring-shaped front opening of the barrel. By this opening the cartridge is firmly held, thus overcoming the problem of fatigue and/or resistance of the ejector holder to the pressure applied by the material being extruded or dispensed (see column 1, lines 24 to 29; column 3, lines 50 to 57). Since according to the disclosure of this document, such a ring shaped front opening is necessary, document D1 cannot give any hint to the skilled person for leaving this teaching.

- 6.4 The holders for hypodermic syringe cartridges disclosed in document D2 are not intended for ejection of viscous material and therefore the provision of the external wings formed integrally with the channel are not provided for resisting high forces which are applied for ejecting viscous dental filling material from the cartridge. The only purpose of these wings lies in assisting the holding of the much larger cartridges by the hand of the operator.

Furthermore, as regards the embodiment according to Figure 12, document D2 teaches the lateral insertion of the cartridge in the holder by snapping the cartridges directly in its **final position** within said holder. Since the channel for insertion of the cartridge in the holder **extends along the entire length of the short holder** and the **annular bead** of the cartridge therefore **enters directly the groove** during the snapping insertion of the cartridge in the channel, which prevents any longitudinal movement of the cartridge (see column 5, lines 27 to 41), the teaching of document D2 cannot give any hint to the person skilled in the art to modify the front end and the breech opening of the barrel of the manually operable ejector holder known from document D1 in the sense as specified in Claim 1, according to which

the holder keeps the cartridge securely during ejection of viscous material in the barrel while permitting facile ejection and facile insertion and removal of the cartridge.

6.5 It follows from the above that in view of the cited prior art it was not obvious to arrive at the claimed manually operable ejector holder in combination with a cartridge.

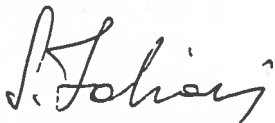
7. Consequently, the subject-matter of Claim 1 involves an inventive step as required in Articles 51(2) and 56 EPC. Claim 1 being allowable, the same applies to the dependent Claims 2 to 13, whose patentability is supported by that of Claim 1.

#### Order

#### For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent on the basis of Claims 1 and 2 filed during the oral proceedings and Claims 3 to 13 as granted, the adapted description also filed during oral proceedings and Figures 1 to 10 as granted.

The Registrar:



S. Fabiani

The Chairman:



H Seidenschwarz