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**Datasheet for the decision
of 10 October 2022**

Case Number: T 1001/18 - 3.4.03

Application Number: 06014187.6

Publication Number: 1744288

IPC: G07D1/00

Language of the proceedings: EN

Title of invention:

Coin token assembly, method and device for dispensing coin tokens

Applicant:

Dutchband B.V.

Headword:

Relevant legal provisions:

EPC Art. 56

RPBA 2020 Art. 13(2)

Keyword:

Inventive step - (yes) - problem and solution approach - after amendment - closest prior art - problem invention (yes)
Amendment after expiry of period in R. 100(2) EPC
communication - exceptional circumstances (yes) - exercise of discretion - cogent reasons (yes)

Decisions cited:

T 0495/91

Catchword:

Since the problem and solution approach defines the problem based on the effect of the differences from the closest prior art, and the effect is derived primarily from the disclosure of the invention, the effect documented in the present documents alone is taken as the basis for the problem formulation. The Board concluded that any further, undocumented effects would be speculative and should not be additionally included in the problem formulation (reasons 5.3.2)



Beschwerdekammern

Boards of Appeal

Chambres de recours

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Case Number: T 1001/18 - 3.4.03

D E C I S I O N
of Technical Board of Appeal 3.4.03
of 10 October 2022

Appellant: Dutchband B.V.
(Applicant) Mauritskade 55 d
1092 AD Amsterdam (NL)

Representative: Hoeben, Ferdinand Egon
Allied Patents B.V.
Postbus 1551
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 8 November 2017
refusing European patent application No.
06014187.6 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman S. Ward
Members: A. Böhm-Pélissier
E. Mille

Summary of Facts and Submissions

- I. The appeal is against the decision of the Examining Division to refuse patent application No. 06 014 187. The refusal was based on the ground of lack of inventive step (Article 56 EPC).
- II. The Appellant (Applicant) **requested** at the end of oral proceedings, held on 10 October 2022, that the decision under appeal be set aside and that a patent be granted on the basis of the following documents:

Claims: 1 to 13 of the Main Request, submitted by the Appellant at 12h15 during the oral proceedings;

Description: pages 1 to 12, submitted by the Appellant at 12h15 during the oral proceedings;

Drawing sheets: 1/8 to 8/8, as originally filed.

- III. Reference is made to the following documents:

D1 = DE 39 41 286 A

D2 = US 3 209 882 A

D3 = DE 933 956 C

D4 = US 5 695 107 A

- 1.1 **Claim 1** reads (Board's labelling):

(A) Coin tokens assembly (20), for use in an automated vending device for vending coin tokens (2, 3, 4..., 21, 25, 26...) by dispensing the coin tokens from a roll by breaking off coin tokens from the roll,

(B) comprising coin tokens for use as value-representing coin tokens in a closed payment environment,

(C) comprising a number of mutually distinguishable coin tokens (2, 3, 4..., 21, 25, 26...),

(D) wherein mutually adjacent coin tokens are connected to each other in a manner such that they are ordered in mutually separable manner relative to each other,

(E) characterised in that the material of the coin tokens (2, 3, 4..., 21, 25, 26...) forms the assembly,

(F) the assembly being formed by means of an extrusion process

(G) and the assembly is suitable for placing in the automated vending device for dispensing a variable number of coins input into the automated vending device,

(H) wherein the coins are formed from a plastic material

(I) and have a thickness usual for coin tokens of 0.5-4 millimetres,

(J) the assembly is arranged in the form of a roll,

(K) a separable transition between adjacent coin tokens is formed by an incision (12) in the material from which the assembly is manufactured,

(L) and in that the incision (12) is made by means of a cutting operation or a punching operation through a part of the thickness of the material,

(M) and in that the coin tokens are connected to each other in a breakable manner for breaking off a coin tokens array by a breaking off operation for dispensing the broken off coin tokens array,

(N) such that a supply of used coin tokens can be counted in simple manner by weighing thereof.

IV. The arguments of the Appellant can be summarised as follows:

- (a) The skilled person had no incentive to modify the paper vouchers in D3 such that the tokens could be counted by weighing.
- (b) If the person skilled in the art were to attempt to implement the teachings of D2 in the token dispenser of D3, they would encounter great technical difficulties because the shape, thickness, and texture of the tokens disclosed in D2 were not suitable for the dispenser disclosed in D3.
- (c) The tokens in D2 were manufactured by means of a molding process teaching away from an extrusion process.

Reasons for the Decision

- 1. The appeal is admissible.
- 2. **The invention**
 - 2.1 The present invention relates to a coin token assembly for use in a vending machine dispensing coin tokens. In cash-point systems the coin tokens are counted out when they are sold, or sold in predetermined quantities. This counting-out is time-consuming work and requires a high degree of accuracy of cash-point staff.
 - 2.2 The solution is based on the concept of creating a coin token assembly in which the material of the coin tokens forms the assembly, in combination with easy separation thereof during the automated sales process. The assembly is formed by means of an extrusion process allowing for a very elongated form factor in which the recordings are connected to each other in a breakable manner so that it can be separated along a notch that is created in the assembly to define a coin, all such

that the coins can be dispensed from the vending machine and such that a supply of used coin tokens can be counted in simple manner by weighing (see introduction of the description).

3. **Article 13(2) RPBA 2020**

3.1 During the hearing, new aspects arose during the discussion of inventive step that had not been considered in the previous proceedings. Consequently, in view of these exceptional circumstances, which have been justified with cogent reasons by the party concerned, the Board admitted the new current request into the appeal proceedings (Article 13(2) RPBA 2020).

3.2 In particular, the purpose of the plastic tokens, i.e. counting the tokens by weighing, was included in the claims. In addition, the Board accepted the argument of the Appellant that it had intended to delete the words "for instance", but that this had been overlooked, so that a corresponding correction should be permitted.

4. **Articles 123(2), 83 and 84 EPC**

4.1.1 Claim 1 of the present request is mainly based on claims 1, 2 and 3 as originally filed. Features (M) and (N) are based on the originally filed application documents, description, page 3, lines 1 to 3, and lines 27 to 28, respectively. The objections in the first communication of the Board have been overcome by amending Features (M) and (N) accordingly. "Coin assembly" was changed to "coin tokens assembly" based on original description, lines 1 to 2.

4.1.2 Consequently, the current set of claims complies with the requirements of Article 123(2) EPC. The claims also fulfil the requirements of Articles 83 and 84 EPC.

5. Inventive Step - Article 56 EPC

5.1 Closest prior art

5.1.1 The impugned decision relies on D1 as the closest prior art. However, D1 discloses a coin strip in a cassette where strip sections are cut out and reinserted into a cassette strip. The Board agrees with the Appellant that D1 has a completely different purpose to that of the present invention. There would be no reasonable incentive for the skilled person to modify the tape arrangement disclosed in D1 to arrive at the combination of features (A) through (N).

5.1.2 However, D3 discloses paper tokens on a roll to be dispatched by a vending machine and therefore has the most similar purpose. It is the most suitable spring-board for the problem and solution approach.

5.2 D3 - Difference

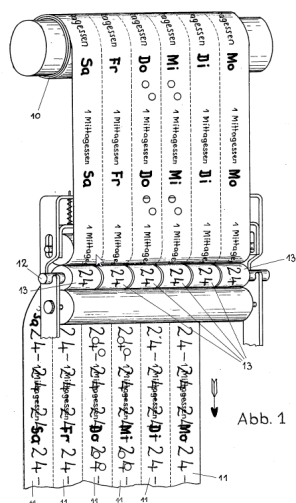


Abb. 1

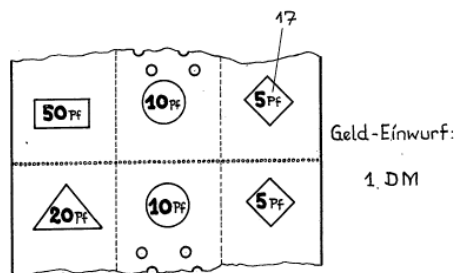


Abb. 4

D3

5.2.1 It was agreed that D3 fails to disclose Features (A), (F), (H), (I), (K), (L), (M) and (N).

5.2.2 D3 therefore does not disclose that the tokens

- (a) are made of plastic;
- (b) are separated by notches;
- (c) are broken off;
- (d) are formed by means of an extrusion process;
- (e) have a specific thickness (0.5 to 4 mm);
- (f) can be counted by weighing.

5.3 Effect and problem

5.3.1 The main difference between the claimed invention and D3 is that the coin tokens are made of plastic having a thickness of 0.5 to 4 mm, rather than paper. The technical effect disclosed in the originally filed application in this regard is that the tokens can be counted by weighing (cf. present application as originally filed, page 3, lines 26 to 29, cf. feature (f)).

5.3.2 None of the cited documents D1 to D4 discloses any other effect related to the use of plastic coin tokens. Since the problem and solution approach defines the problem based on the effect of the differences from the closest prior art, and the effect is derived primarily from the disclosure of the invention, the effect documented in the present application documents alone is taken as the basis for the problem formulation. The Board concluded that any further, undocumented effects would be speculative and should not be additionally included in the problem formulation (cf. also T 495/91 (reasons point 4.2), and "Case Law of the Boards of Appeal of the European Patent Office, 10th edition, 2022, section I.D.4.2.2: "*an objective definition of*

the problem to be solved by the invention should normally start from the problem described in the application").

- 5.3.3 Consequently, the problem is formulated as "modifying D3 such that a supply of used coin tokens can be counted in simple manner" (cf. Feature (N)).

5.4 Obviousness

- 5.4.1 The paper coins in D3 are not suitable for counting by weighing, since paper is too light, paper changes its specific weight when exposed to water or moisture, paper is difficult to handle for weighing as individual pieces and the tokens in D3 have different values (cf. Fig. 4).

- 5.4.2 D3 does not give any hint either to count the tokens by weighing or to use another material (e.g. plastic) instead of paper. The entire apparatus in D3 is designed for paper coins, which are not suitable for counting by weighing. Therefore, given the teaching of D3 alone, the skilled person would not have considered a count by weighing.

ad features (a) to (c):

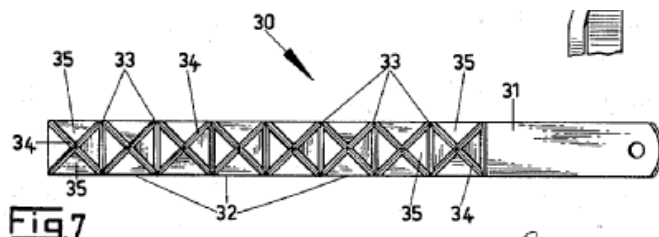
- 5.4.3 D2 teaches in Fig. 1 that a token can be made of plastic in form of a coin. D2 teaches furthermore in Fig. 7 that a plurality of tokens can form an assembly and be dispensed in an array of tokens. D2 furthermore teaches in Figs. 1 and 7 that single tokens or an array of tokens can be broken off the assembly of tokens.

- 5.4.4 However, D2 does not disclose counting the plastic coins by weighing, and so the skilled person would have no reason to replace the paper tokens of D3 by the

plastic tokens disclosed in D2 in order to solve the objective problem.

ad feature (d):

5.4.5 Even if, for some reason, the skilled person considered combining the teaching of D2 with the teaching of D3, this would not lead to the claimed invention.



... D2, Fig. 7

5.4.6 D2 neither discloses nor hints that the tokens are formed by means of an extrusion process. The embodiment of Fig. 7 shows a plurality of tokens on a strip to be broken off. According to the description of Fig. 7, each of tokens 32 is provided with channels 34, channels 34 having a cross formation and being formed on both faces of the strip 31 (column 4, lines 27-29). From the fact that the channels are formed on both sides, run evenly and are in the form of crosses and transverse lines, the Appellant argued that the key in Fig. 7 would be produced by a molding process and that an extrusion process would not be suitable. The Board finds this plausible. Therefore, an extrusion process is neither disclosed in, nor obvious from, D2, nor is such a process disclosed in the other available prior art.

ad feature (e):

5.4.7 Moreover, the coin strip disclosed in Fig. 7 of D2 would be unsuitable for a roll arrangement as disclosed in D3. The devices in D3 are designed for a lightweight and very flexible material that can be easily unwound and torn off. Plastic tokens of the claimed thickness

could not be unwound so tightly and easily around printing drum 12 (cf. Fig. 1 of D3). A changeover to plastic tokens in the required thickness would therefore require a redesign of the entire unit. Furthermore, D2 discloses tokens which may be snapped off from the strip by "fracturing or shearing" (column 4, line 13) implying a relatively rigid and inflexible token key that would be impossible to use in the roll arrangement of D3.

ad feature (f):

- 5.4.8 As noted above, D2 does not disclose counting the plastic coins by weighing. The problem of counting the "dispensed" tokens is only mentioned in D1, where tokens are counted electronically (claim 1). D1 mentions only the measurement of resistance, color, shape, thickness and hardness (claim 4), but not weight.
- 5.4.9 In summary, the skilled person would have no incentive to modify the vending machine of D3 to make it suitable for dispensing plastic coins, which are suitable for counting by weighing. Therefore, starting from D3, the skilled person would not arrive at the combination of Features (A) to (N).
- 5.4.10 As discussed above, D1 would not be a suitable springboard for the problem and solution approach, nor would it provide useful guidance for the skilled person to arrive at a combination of features (a) through (f). The skilled person would also not start from D2 because D2 is designed to destroy tokens in a parking meter and does not provide any details about the vending machine that dispenses the tokens. As discussed above, combining the teaching of D2 with the teaching of D3 would also not lead to the invention. D4 has a similar

disclosure as D3 and cannot provide any further teachings to the skilled person either.

- 5.4.11 Therefore, the Board concluded that, starting from D3 as the closest prior art, the skilled person would not arrive at the subject-matter of claim 1 without exercising an inventive step (Article 56 EPC). Claims 2 to 13 depend upon claim 1.

6. Summary

The Board therefore judges that, taking into account the available prior art, the coin tokens assembly of claim 1 involves an inventive step within the meaning of Article 56 EPC. Claims 2 to 13 depend upon claim 1. The Board notes that the description was adapted to the new claims.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance with the order to grant a patent on the basis of the following documents:

Claims: 1 to 13 of the Main Request, submitted by the Appellant at 12h15 during the oral proceedings;

Description: pages 1 to 12, submitted by the Appellant at 12h15 during the oral proceedings;

Drawing sheets: 1/8 to 8/8, as originally filed.

The Registrar:

The Chairman:



S. Sánchez Chiquero

S. Ward

Decision electronically authenticated