

Internal distribution code:

- (A) [-] Publication in OJ
- (B) [-] To Chairmen and Members
- (C) [-] To Chairmen
- (D) [X] No distribution

**Datasheet for the decision
of 4 November 2022**

Case Number: T 0372/20 - 3.3.05

Application Number: 17151537.2

Publication Number: 3205627

IPC: C02F1/68

Language of the proceedings: EN

Title of invention:

A COMPRESSED SALT BLOCK FOR A LIQUID TREATMENT APPARATUS

Applicant:

Harvey Water Softeners Limited

Headword:

COMPRESSED SALT BLOCK / Harvey

Relevant legal provisions:

EPC Art. 56

Keyword:

Inventive step - (no)

Decisions cited:

T 0321/16, T 0344/89

Catchword:



Beschwerdekammern
Boards of Appeal
Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 0372/20 - 3.3.05

D E C I S I O N
of Technical Board of Appeal 3.3.05
of 4 November 2022

Appellant: Harvey Water Softeners Limited
(Applicant) Hipley Street
Old Woking, Surrey GU22 9LQ (GB)

Representative: inCompass IP Europe Limited
51 Paddock Mead
Harlow, Essex CM18 7RR (GB)

Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 24 September
2019 refusing European patent application No.
17151537.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman E. Bendl
Members: J. Roider
R. Winkelhofer

Summary of Facts and Submissions

I. The appeal lies from the decision of the examining division to refuse the patent application because the main request and the auxiliary request lacked an inventive step, and the auxiliary request also did not fulfill the requirements of Article 123(2) EPC.

II. The following document cited in the decision under appeal is also of relevance for the present decision:

D3 "Kineticco 2020c Water Softener", 17 March 2015, XP055364819, retrieved from the Internet: URL: <http://www.isleofwightwaterssofteners.co.uk/products.html> [retrieved on 2017-04-13]

III. In its statement setting out the grounds of appeal, the applicant/appellant maintained the main request and the auxiliary request underlying the decision under appeal. During oral proceedings, the auxiliary request was withdrawn such that the main request (of 21 June 2019) is the only remaining claim request.

IV. Claim 1 of the main request reads:

"A water softener apparatus compressed salt block (10; 150; 250), the salt block (10; 150; 250) formed by molding as a compressed salt block (10; 150; 250) to comprise:

a longitudinally extending elongated body (12; 162; 262) having a vertical longitudinal axis (L-L), a top horizontal face, a bottom horizontal face, and comprising:

a block portion having a rectangular cross-section

taken in a horizontal plane that is perpendicular to the vertical longitudinal axis, wherein the rectangular cross-section is defined by a front exterior surface that is a base surface (20) of the block portion, a rear surface (35), and a pair of exterior surfaces (40, 50); and an extension portion (14; 164; 264) formed integrally with the rear surface (35) of the rectangular cross-section of the block portion as a single compressed salt block (10; 140; 250), wherein the extension portion (14; 164; 264) has a cross-sectional area in said horizontal plane in the form of a right truncated triangle, the extension portion having a first exterior side that is contiguous with one of the pair of exterior side surfaces (40, 50) of the block portion, a second side that is contiguous with the rear surface (35) of the block portion, and an exterior hypotenuse side (32) that extends at an acute angle relative to the base surface (20) of the block portion from a rear edge of the first exterior side of the extension portion toward the rear surface (35) of the block portion;

wherein a horizontal cross section (A) of the elongated body (12; 162; 262) is constant along the vertical longitudinal axis (L-L) of the elongated body (12; 162; 262) and the exterior hypotenuse side (32) of the extension portion defines a functional face adapted to abut against a vertical wall (170) or an exterior vertical surface of a tank (110A,B; 210A,B; 310A,B) of a water softener apparatus (100) to position the compressed salt block within said water softener apparatus (100)."

V. The arguments of the appellant can be summarised as follows:

The limited space beneath a kitchen sink imposed restrictions on the size of the elements of a water

softener apparatus, in particular the water softening tanks and the compartment holding the salt.

Prior to the invention, to avoid the voids in a bed of pellets, salt blocks having the shape of a rectangular prism were used. However, because the water softening tanks were pressure vessels and therefore had to have a circular horizontal cross-section, the space available for rectangular salt blocks was still seriously limited.

The invention proposed to fit the blocks around the water softening tanks. Since the blocks were stabilised by the walls of the water softening tanks, there was no need for a partition wall if the compartment was suitable for accommodating two salt blocks.

After the application was filed, two additional advantages had become apparent, of which there was no hint in the original application.

1) The surface to volume (or perimeter to cross-section) ratio of the claimed salt blocks was more favourable than that of salt blocks having the shape of a rectangular prism.

2) It was easier to place the blocks into the water softener apparatus because the extension portion could be used as a handle.

The shape was thus not only determined by the water softener apparatus but also by other aspects.

VI. The appellant requested that a patent be granted on the basis of the main request.

If the board did not feel able to agree with the appellant's arguments, the case should be remitted to the examining division for further examination.

Reasons for the Decision

1. Main Request, Article 56 EPC -Inventive Step
 - 1.1 The present application relates to a compressed salt block for use in a water softener apparatus, and to a water softener apparatus.
 - 1.2 D3, which was cited as the closest prior art, is directed to a water softener and salt blocks for water softening.
 - 1.3 The appellant sees the technical problem to be solved as "for a water softener apparatus of the type that uses compressed salt blocks, how to load a proportionally greater amount of salt into the water softener apparatus" (statement of grounds of appeal, page 6).

According to the appellant, the patent application proposes to solve this problem by providing a non-conventional shape of salt block, i.e. a salt block as claimed with an extension portion.

- 1.4 To solve the technical problem as stated by the appellant, the salt block and the receiving cavity in the water softener apparatus must have congruent shapes. However, the shape of the receiving cavity is not defined in the subject-matter of claim 1. The subject-matter of claim 1 in particular does not reflect the shape as described by the appellant, according to which the cavity is the free space left when a circular water softening tank is inserted into a rectangular housing.

The effect that the extension portion can hold the salt

block in place such that a partition wall is not necessary in compartments containing two salt blocks can also not be taken into account because this configuration is also not reflected by the subject-matter of claim 1.

1.5 Therefore, the proposed technical problem is not solved by the features of the subject-matter of claim 1 and the technical problem must be reformulated to a less ambitious problem, which is to provide an alternative compressed salt block.

1.6 The subject-matter of claim 1 does not require any absolute or relative size of extension portion. The shape defined by claim 1 can therefore be considered a minor and obvious modification of the shape disclosed in D3, and thus lacks an inventive step.

1.7 Concerning the two advantages discovered by the appellant only after filing of the patent application, reference is made to established case law according to which additional advantages can only be taken into account for the assessment of inventive step if a skilled person can deduce them from the application as originally filed (see e.g. T 321/16 point 1.3.7, T 344/89 point 5.3.1).

1.8 The present patent application aims to achieve better use of the space available in the water softener apparatus whereas the first additional advantage invoked by the appellant relates to a higher brine production rate, and the second additional advantage relates to better handling of the salt block.

These purported additional advantages cannot be derived from the application as originally filed, as also

acknowledged by the appellant.

Since they would alter the character of the invention, they cannot be taken into account for the assessment of the presence of an inventive step.

1.9 The appeal has thus to be dismissed.

2. Remittal to the department of first instance

In view of the above, there is no question of remittal.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



C. Vodz

E. Bendl

Decision electronically authenticated