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

Datasheet for the decision of 25 November 2011

Case Number: T 0359/09 - 3.4.02

Application Number: 97936481.7

Publication Number: 922196

IPC: G01B3/10

Language of the proceedings: EN

Title of invention:
TAPE RULE HOUSING

Applicant:
Stanley Black & Decker, Inc.

Opponent:
THEYSOHN Formenbau GmbH

Headword:

Relevant legal provisions:
EPC Art. 100(a)

Keyword:
Proper construction of Claim 1
inventive step (yes)

Decisions cited:

Catchword:

Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T0359/09 - 3.4.02

D E C I S I O N
of the Technical Board of Appeal 3.4.02
of 25 November 2011

Appellant: (Applicant)
Stanley Black & Decker, Inc.
1000 Stanley Drive
New Britain, CT 06053 (U.S.A)

Representative:
Stentiford, Andrew Charles
Stanley Black and Decker, Inc.
European Patent Department
210 Bath Road
Slough, Berkshire SL1 3YD (United Kingdom)

Appellant: (Opponent)
THEYSOHN Formenbau GmbH
Grovestrasse 20-22
30853 Langenhagen (Germany)

Representative:
Stoffregen, Hans-Herbert
Patentanwalt
Friedrich-Ebert-Anlage 11b
63450 Hanau (Germany)

Decision under appeal: **Interlocutory decision of the Opposition Division of the European Patent Office posted 9 December 2008 concerning maintenance of the European Patent No. 922196 in amended form.**

Composition of the Board:

Chairman: A. Klein
Members: M. Stock
D.S. Rogers

Summary of Facts and Submissions

I. In an interlocutory decision the opposition division decided that account being taken of the amendments made by the patent proprietor in accordance with its auxiliary request 3, the European patent No. 0 922 169 (application number 97 936 481.7, published as WO 98/09133) and the invention to which it related met the requirements of the EPC. Both the proprietor and the opponent lodged an appeal against this decision.

II. The patent relates to a tape rule housing provided with elastomeric elements (66) providing a slip-resistant and comfortable gripping surface (see figure 1 below).

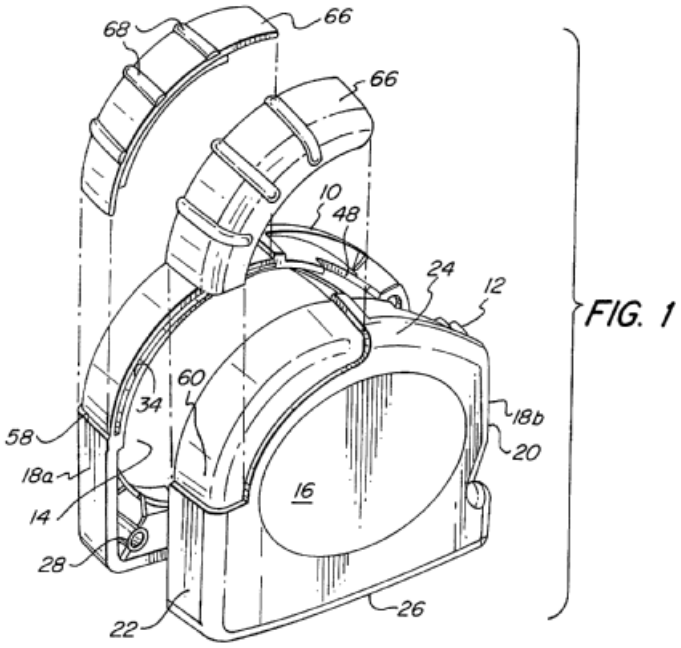


FIG. 1

Claim 1 of the patent as granted reads:

1. A returnable tape rule housing comprising:
side walls (16);

a peripheral wall (18) extending therebetween with a bottom portion (26), upper portion (24), front end portion (20), and rear end portion (22), said walls providing an internal chamber (14) therewith, said peripheral wall (18) having an aperture (42) therein communicating with said chamber at the juncture between said bottom portion (26) and said front end portion (20) for passage of a tape rule blade therethrough, the juncture between said side walls (16) and said upper portion (24) of said peripheral wall (18) being generally convexly arcuate, said housing walls having recessed portions (60) extending over the upper section of said rear end portion (22) and the rearward section of said upper portion (24) of said peripheral wall; and an elastomeric element (66) seated in said recessed portions (60) and extending over the upper section of said rear end portion (22) and the rearward section of said upper portion (24) of said peripheral wall (18); characterised in that
said recessed portions (60) extend over portions of said side walls (16) adjacent to the recessed portions (60) of the said peripheral wall (18);
said elastomeric element (66) extends over portions of said side walls (16) adjacent to the peripheral wall portions over which it extends, and extends around the juncture of said peripheral wail portions and said side wall portions over which said elastomeric element (66) extends; and
said elastomeric element (66) is a grip element (66) providing a slip-resistant and comfortable gripping surface for the user’s palm and thumb.

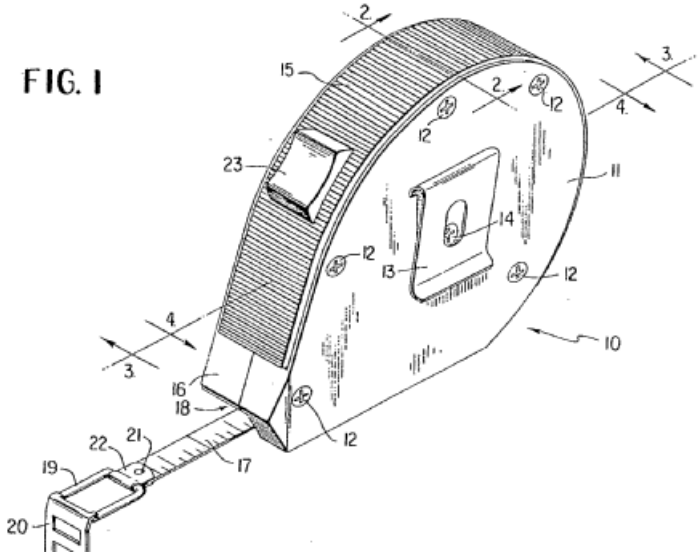
III. Opposition had been filed against the patent as a whole, based on the grounds under Article 100(a)EPC that the subject-matter of the patent was not new and

did not involve an inventive step. Among the documents cited in the opposition procedure the following are still of relevance for the present decison:

D1: US-A-4 527334
D2: GB-A-2 223 586
D3: US-Des. 332,414
D4: US-Des. 364,575
D5: DE-A-40 22 884
D7: US-A-4 142 693
D8: US-A-5 528 834

Document D1 includes the following figure 1

FIG. 1



IV. In its statement of grounds of appeal the patent proprietor requested that the decision of the opposition division be set aside and the patent be maintained unamended (main request) or amended according to two auxiliary requests.

According to the patent proprietor the objective technical problem solved by the subject-matter of claim 1 as granted (main request) when starting from the

closest prior art disclosed in document D1 was to confer on the known tape rule housing certain properties such as improved grip and comfort in use. Therefore, the skilled person had to be skilled in the field of tape rule housings. Both the devices disclosed in and the problems addressed by documents D5 and D8 were very different from those in D1. D5 was related to bottle crates and the grip provided therein was therefore designed to ease lifting of a heavy load whilst D8 concerned a utility knife, use of which required significant force, too. The user requirements not being comparable, the skilled person had no reason to investigate solutions in the art of crates or utility knives.

The field of tape rule devices was a specialized field in which there was a significant amount of prior art. The mere fact that the only combination alleged to lead to the claimed invention was made up of prior art from entirely different technical fields indicated that the subject-matter of claim 1 involved an inventive step.

Moreover, the inclusion of recessed portions in the side walls of the housing of D1 would add significant complexity which therefore taught away from modifying it such as to include recessed portions extending over the edges of the housing into its side walls, as was required by the wording of claim 1. The peripheral groove which in D1 received the shock absorbing bumper was in particular limited on both sides by shoulders which were needed for maintaining the bumper transversally in the groove and would not therefore allow to extend the groove up to the side walls.

The shock absorbing bumper of D1 also included angular ridges and grooves extending in a transverse direction

across the peripheral wall of the tape rule housing. These angular ridges and grooves obviously conferred considerable rigidity in this transverse direction to the bumper element which therefore did not lend itself easily or conveniently to an extension around the edges of the housing and into recesses in the side walls, such recesses being in any case absent in D1. For this reason too, D1 taught away from a modification such as to include the features of claim 1 as granted.

V. The opponent for its part requested revocation of the patent in its entirety. Its arguments can be summarized as follows:

A tape rule housing as set out in the preamble of claim 1 was disclosed in document D1, corresponding to the closest prior art. The invention addressed the objective technical problem of providing the known housing with a novel gripping surface which limited the tendency of the tape rule to slip out of the user's hand and felt more comfortable. The solution defined in the characterising portion of the claim was suggested in an obvious way by the state of the art.

In particular, the housing of claim 1 of the contested patent was distinguished over D1 in essence only in that the known shock-absorbing layer of rubber or PVC did not merely extend in a peripheral groove but also over the edges into corresponding recesses formed into the side walls. This measure offered itself to the skilled person, since a tape rule had a tendency to fall down at various occasions and its edges needed better protecion against damage, accordingly. Just as in the patent, the known shock-absorbing material, which was rubber or soft PVC, also limited the housing's tendency to slip out of a user's hands and it

provided good comfort. That gripping surfaces were not only shock-absorbing but that they also limited slipping-out, was amply known by the skilled person working in the field of thermoplastics; see D5, D7 or D8.

The opponent in its statement of the ground of appeal relied on a further document

D11: Kunststoffe Synthetics, 9/95, S.44-52

to show that over-molded elastomeric elements were a well-known means of improving grip in various hand-held objects of everyday use such as razor housings,tooth-brushes or screwdrivers.

Documents D2, D3 , D4 or D7 also showed grip-improving elements or structures provided on the side-walls of tape rules.

VI. Oral proceedings were held on 25 November 2011, at which the patent proprietor withdrew all auxiliary requests, maintaining only its main request that the patent be maintained unamended.

The decision was given at the end of the oral proceedings.

Reasons for the Decision

1. Proper construction of claim 1

Claim 1 defines a tape rule housing comprising, inter alia, side walls and a peripheral wall extending therebetween with a bottom portion, upper portion, front end portion and rear end portion, with recessed portions extending both in the peripheral wall and adjacent portions of the side walls and an elastomeric element seated in said recessed portions.

As concerns the position and extent of the recessed portions with the elastomeric element seated therein the claim states that they extend "over the upper section of the rear end portion and the rearward section of the upper portion of the peripheral wall"

An essential issue for an accurate determination of the technical differences between the claimed subject-matter and the prior art is whether or not the location of the recessed portions of the peripheral wall as set out in the claim is actually restricted to the specific portions defined therein, namely over the upper section of the rear end portion and the rearward section of the upper portion of the peripheral wall.

The proprietor of the patent insisted during the oral proceedings that the claim defined such a restricted localization of the recessed portions. The opponent to the contrary considered that the claim defined a minimal extension only of the recessed portions, which obviously had also been the opposition division's understanding in the decision under appeal, so that they both read this feature on to the arrangement in document D1 in which a recessed portion with an

elastomeric element extends over the major part of the peripheral wall.

The Board in this respect observes that:

- the function of the elastomeric elements in the recessed portions as expressly set out at the end of the claim, which is to constitute "a grip element (66) providing a slip-resistant and comfortable gripping surface for the user’s palm and thumb", is achieved only at the location defined in the claim, corresponding to the actual contact position with a user's palm and thumb when holding the tape rule; that

- the embodiments of the patent as shown in the figures clearly and consistently only show recessed portions limited in extent to the locations defined in the claim; and that

- there is no indication whatsoever in the patent documents suggesting any extension of the recessed portions beyond the specific areas disclosed in the figures and set out in the claim.

Accordingly a skilled person reading the patent description and figures would not in the Board's view have any reason to construe the claim as if the location expressly set out there for the recessed portions merely defined a minimal possible extension - as if the claim included the adverb "at least" after "the recessed portions extending". Such construction would probably not be envisaged without the benefit of hindsight knowledge of the particular piece of prior art constituted by document D1, and perhaps the desire to make the claim fit onto it.

The Board therefore came to the conclusion that for an objective and fair analysis of the claimed subject-matter, which is the very basis of a reliable assessment of its patentability , claim 1 must be construed to define - in respect of the localization of the recesses and elastomeric elements - the only technically effective and actually disclosed configuration - namely with the recess only extending at the very location explicitly defined there, i.e."over the upper section of said rear end portion (22) and the rearward section of said upper portion (24) of said peripheral wall (18)".

2. Novelty

Document D1 is the sole prior art document on the file to show an elastomeric element extending over substantial portions of the peripheral wall of a tape rule housing. This elastomeric element is a resilient shock-absorbing bumper 15 preferably made of rubber or soft PVC and secured to the peripheral wall (see figure 1 and column 2, lines 55 to 58). The presence of a shallow recess in the peripheral wall for receiving the bumper can be guessed from the figures 2 to 4. In contrast to the claimed subject-matter, however, the recess and the elastomeric element extend over the major portion of the peripheral wall, they do not extend over portions of the side walls nor over the juncture of the peripheral and side walls, and said juncture is not generally convexly arcuate either. Also, due both to the sharp edge formed at the juncture and to the fact that the shock-absorbing bumper substantially protrudes from the shallow recess beyond the rest of the surface of the housing and exhibits a quadratic section, the gripping surface thus provided can hardly be considered "comfortable".

The tape rule housing of document D2 comprises a plurality of parallel grooves on the side walls and juncture, which receive elastomeric elements in the form of O-rings (3) to prevent slippage of the housing on an inclined surface (see figure 1 and abstract). The grooves and O-rings do not extend significantly along the peripheral wall.

The remaining citations relied upon by the opponent are still less relevant. Documents D3 and D4 in particular are US Design Patents with figures only, which show tape rule housings having ridged peripheral walls, document D7 shows a tape ruler housing with an apparently textured side wall, documents D5 and D8 relate to elastomeric grip elements provided on bottle crates and utility knives, respectively. Finally document D11 is an article relating to the over-molding of plastics or elastomeric materials, which in a passage generally refers to the use of soft covering materials to improve comfort and slip-resistance of grip surfaces of razor housings, tooth-brushes or screwdrivers, without any concrete construction details of such grip configurations (see page 50, the passage bridging the 1st and 2nd columns).

Accordingly, the subject-matter of claim 1 is novel.

3. Inventive step

3.1 From the above analysis it emerges that among the various pieces of prior art as relied upon by the opponent none actually addresses nor even accidentally solves the technical problem of providing a tape rule housing with a slip-resistant and comfortable gripping surface, as set out in claim 1.

The mere fact that there is no evidence in the file that the above problem had ever been purposely addressed in the field of tape rule housings in the Board's view can already be considered as a strong indication of non-obviousness. The more so since the negative consequences of damages resulting from the housing slipping out of the user's hand or from an inclined surface, and the need for their avoidance, had been clearly identified in the past and had led to technical improvements such as the provision of a shock absorbing bumper (15) in document D1 or of slippage-preventing O-rings (3) or magnets (7) in document D2.

3.2 Neither could the Board identify in the cited prior art any hint towards the claimed structure, in particular the provision of an elastomeric element in recesses extending from the peripheral wall to the side walls over a convexly arcuate junction therebetween, and even less so towards the selection defined in the claim for the location of such recess and elastomeric element corresponding to the region of contact with the user's palm and thumb.

3.3 The opponent submitted in respect of the claimed extension of the recess and elastomeric element up to the side walls that the skilled person would readily understand that in the housing of document D1 a better protection of the juncture portions against damage would be achieved if the sharp-edged juncture disclosed there was given a convexly arcuate section and the recess on the peripheral wall together with the shock-absorbing bumper affixed to it were extended up to the side wall.

However, not only would such modification entail substantial changes in the construction of the known housing, because it is precisely at the sharp juncture that the side wall is removably attached to the remainder of the housing through a series of screws, but the implication that the edged juncture in document D1 is not adequately protected by the thick shock-absorbing bumper protruding from the peripheral wall at a close proximity to it, is mere speculation.

In addition, in order to achieve its protective effect, the shock-absorbing bumper in D1 by necessity extends along the major part of the peripheral wall and there is no obvious reason therefore why the skilled person would contemplate the specific, limited extension set out in the claim, and thus in effect renounce to its main purpose.

3.4 The opponent also referred to documents D5, D8 and D11 which in its view suggested to provide a tape rule housing with slip-resistant and comfortable grip surfaces constituted by elastomeric elements.

Document D5, see figures 2 and 5, discloses a bottle crate comprising a grip element (1) ergonomically shaped, see column 3, lines 37-40, and over-molded with a soft layer of polyurethane (3) facilitating carriage of the crate, see column 4, lines 35-44. Even though D5 thus provides a comfortable gripping surface, the problem solved in D5 is related to the carrying of heavy crates which have little in common with tape rules. Moreover, D5 does not give any teaching towards recesses for receiving a grip surface element, and still less towards their adequate positon on a tape rule housing.

Document D8, see figure 1 and the abstract, discloses a utility knife having a fixed blade, a plastic base fixed to the tang of the blade, and a rugged rubber grip fixed to the plastic base. The problem addressed in D8 as stated column 1, lines 30-37 and 49-55, is that the user must be able to grip the knife whether the handle is wet or dry. The knife should withstand extreme situations, such as being run over by a car, hit by a bullet, placed in a flame, or contacted to corrosive fluids. Plastic being difficult to grasp, whilst rubber lacks the required strength, the document therefore in essence proposes the combination of a plastic base portion with an over-molded rubber grip. Again, the requirements imposed on such utility knives have little in common with those imposed upon tape rules, and the document does not show any structure similar to the claimed recess either, which joins two orthogonal walls.

Document D11 teaches that soft covering materials can help to improve comfort and slip-resistance of grip surfaces of razor housings, tooth-brushes or screwdrivers. These applications indeed come closer to the one envisaged by the present patent than those of documents D5 or D8. However, document D11 does not disclose any concrete construction detail whatsoever. Therefore, even if it had been a straightforward endeavour for the skilled person in charge of the design of a tape rule to strive for better slip-resistance and improved comfort - which has not been convincingly demonstrated - and thus to consult document D11, the Board cannot see how he could in an obvious way have derived from that document the claimed arrangement.

3.5 Thus that the prior art relied upon by the opponent to question inventive step does not lead to the subject-matter of claim 1 in any obvious manner.

In these particular circumstances, inventive step can be acknowledged without even having to resort in detail to the problem-solution approach as usually adopted in the case law of the boards of appeal of the EPO.

3.6 The same conclusion applies to the subject-matter of the remaining claims 2 to 10, by virtue of their dependance on claim 1.

3.7 The grounds of opposition invoked against the patent do not therefore prejudice its maintenance unamended.

4. Additional observation

The two-part form of claim 1, the preamble of which is obviously based on the tape rule housing of document D1 as the closest prior art (see paragraph [0009]), does not correctly reflect the proper construction of claim 1 as discussed under point 1 above, insofar as it ascribes the claimed location of the recesses of the peripheral wall to that prior art.

This formal defect, only introduced during the examining procedure, was already present in the patent as granted. No valid objection could therefore have been raised in this respect in the opposition procedure, and indeed no such objection was actually raised.

Order

For these reasons it is decided that:

The decision under appeal is set aside.

The patent is maintained unamended.

The Registrar: The Chairman:

M. Kiehl A. Klein

Decision electronically authenticated