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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 90 / 83

DECISION

of the Technical Board of Appeal 3.2.1

of 12 March 1984

Appellant: Machinefabriek G.J. Nijhuis B.V.,
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NL-7102 DE Winterswijk (NL)

Representative: van der Beek, George Frans, Ir. et al
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Decision under appeal: Decision of Examining Division 126 of the European Patent Office dated 1 December 1982 refusing European patent application No 80 200 419.2 pursuant to Article 97(1) EPC

Composition of the Board:

Chairman: G. Andersson

Member: M. Huttner

Member: P. Ford

SUMMARY OF FACTS AND SUBMISSIONS

I. European Patent Application No. 80 200 419.2 filed on 2 May 1980, published on 10 December 1980 under publication No. 0 019 957 and claiming priority of 10 May 1979 from a previous application filed in the Netherlands, was refused by decision of the Examining Division 126 of the European Patent Office, dated 1 December 1982. That decision was based on a single Claim received on 9 March 1982.

II. The reasons given for the refusal were that the subject matter of the Claim did not involve an inventive step, since the publication FR-A-2 390 903 also disclosed an apparatus for automatically stunning animals to be slaughtered differing from that claimed only in that the springs keeping the electrodes in initial position are provided with a damper acting at least upon upward movement of said electrode and in view of the fact that dampers associated with springs are commonly known on motor vehicles for preventing rapid unrestricted upward movements of an axle or wheel. To find out which alternative, to have dampers for the movement of electrodes or do without would be the best one, would only be the result of a process of trial and error.

III. On 31 January 1983 the appellants lodged an appeal against this decision paying the fee for appeal and filing the statement of grounds together with the notice of appeal. The appellants asserted that FR-A-2 390 903 discloses an automatic stunning device having no damper for damping the upward movement of the electrodes urged by a spring in opposite direction and the application of such

damper known per se, was not obvious to the skilled person, because the solution is not simply the choice out of two possibilities. The appellants requested that the Decision be set aside and the grant of a European Patent on the basis of the single Claim submitted on 9 March 1982.

The presently effective Claim reads as follows:

An apparatus for automatically stunning animals to be slaughtered comprising a conveyor including two endless conveyor means, (1), said conveyor means (1) having operating surfaces facing each other, said operating surfaces forming a substantially V-shaped passageway therebetween and electrodes (3,4) arranged in succession in the longitudinal direction of the conveyor (1) said electrodes (3,4) being operable to swing about horizontal shafts (7,8) and being adapted to extend into said V-shaped passageway, said electrodes (3,4) being adapted to be kept in the initial position thereof by means of springs (11,12), characterised in that said springs (11, 12) have been provided with a damper said damper damping at least the upward movement of said electrodes (3,4).

IV. For the original Claims and description, reference should be made to publicaion No. 0 019 957.

REASONS FOR THE DECISION

1. The appeal complies with Articles 106-108 and Rule 64 EPC; it is therefore admissible.

2. The subject matter of the application as set out in the present Claim proves to be new, in view of the fact that there is no apparatus for automatically stunning animals to be slaughtered disclosed in the prior art uncovered by the research report having a damper provided with the springs for dampening at least the upward movement of its electrodes.

3. The appellants acknowledge that the apparatus for automatically stunning animals disclosed in FR-A-2390 903 represents the closest prior art and the features of the first part of the Claim are, in combination, part of the apparatus shown in this disclosure.

Thus, the Claim differs from the prior art apparatus according to FR-A-2 390 903 merely in that the springs holding the electrodes in their initial position are provided with dampers dampening at least the upward movement of said electrodes. Thus the subject-matter of the Claim is novel (Article 54 EPC).

4. According to the appellants' submissions, there are disadvantages in using a swingably mounted electrode whose upward movement is opposed merely by the spring urging it into its initial lowered position, in that such electrodes can readily be pushed away if the animal jerks its head upwardly in reaction to the initial current flow, thereby causing the electrodes to reduce or prematurely lose contact pressure with the head. This can sometimes result in inefficient stunning and consequential internal bleeding. The applicant considers this as a serious short-coming.

5. Therefore, according to the appellants' description, the problem to be solved by the present application is to maintain very good contact between the swingable electrodes and the animal's head even if the animal jerks its head upwards.

6. The solution of the problem is realised by associating dampers with the springs so as to restrain at least the upward movement of the electrodes.

7. The question now to be considered is whether, in these circumstances the apparatus according to the Claim still involves an inventive step. From the assessment of the matter, the following points emerge:

7.1 It is a fact that the problem formulated above had not been directly indicated in the relevant prior art. However, the person skilled in the art was aware that effective manual stunning necessitated proper contact of predetermined duration and he knew from FR-A-2 390 903 that this was just as important in automatic stunning. He further knew from manual stunning that insufficient contact could cause muscular contractions, leading to internal bleeding, which would impair the quality of the meat. Knowing these facts, it is only logical to expect that the skilled person would first investigate whether varying contact conditions actually occur in automatic stunning and if they do, to deduce that this was the cause of inefficient stunning. Therefore, the appellants contention in their submissions that the skilled person who observed internal bleedings in some animals could not have any idea about the possible cause is not persuasive. On the contrary, the observation of the animal's violent movements of the head imparting additional

movements to the electrodes is certainly a clear indication that the proper current flow has been impaired by a loss of contact and this indeed would be the cause of inefficient stunning.

Since the overcoming of recognised draw-backs and the achievement of improvements resulting therefrom must be considered as the normal task of the skilled person, no inventive step can possibly be seen in the perception of the problem as indicated in paragraph 5 supra.

7.2 The question now arises whether the prior art and/or the common knowledge of the skilled person would provide any indication for making the apparatus according to FR-A-2 390 903 non-critical to jerking of the animal's head. The skilled person could be expected to discern that the reduction or loss of contact simply results from the inability of the springs associated with the electrodes to oppose the upward swinging of the latter. The question then is whether there is a suitable contrivance available to restrain such sudden upward movements. This is undoubtedly a problem for a mechanical engineer who - in relying on common engineering knowledge relating to machine design components - can be expected readily to apply such knowledge to its solution and to this end he could be expected to consult any suitable engineering handbook or the like to find components capable of performing the required function and meeting the requirements imposed, irrespective of the field of engineering from which the examples of application given therein originate.

7.3 Thus, the literature introduced in the first instance such as the "Universal Encyclopedia of Machines", Volume 1, Paladin 1972, entitled "How Things Work" represents such an engineering handbook, providing the common teaching how spring oscillations may be restrained by shock absorbers. The shock absorber used in a motor car disclosed on page 508 is associated with a spring so designed that when the spring is compressed due to road irregularities (elevations in the road) a high resistance to the upward motion is encountered, while on decompression of the spring less resistance to the reverse movement is imparted. Hence, the skilled person immediately realises that the wheel rolling on the road thus maintains its contact therewith at all times. From this, the designer concerned can readily gather how the upward movement of a spring in a suspension for a wheel following the surface of the road can be damped, and it must be immediately evident to him that the same idea is applicable for a spring biasing an electrode of a stunning apparatus towards the moving head of an animal guided past that electrode. Therefore, the replacement of the spring used in the apparatus according to FR-A-2 390 903 by a spring combined with a shock absorber or damper, such as generally known in the engineering art and exemplified in the handbook referred to above, in order to make use of the known function and advantageous effects of such dampers is obvious for the person skilled in the art.

8. The further arguments submitted by the appellant in support of inventiveness are not sufficiently persuasive to reverse the above conclusion of obviousness.

a) The alleged sceptical attitude of the trade towards automatic stunning, i.e. the reliability of automatically established electrode contact, is irrelevant since automatic stunning has in fact been developed.

b) The appellants further assert that they had to make a choice between a large number of possibilities. This, however, is not the fact. The only alternatives put forward by the appellants are changing the voltage, the current level or the stunning time. The current depending on a given voltage can only be increased with a decrease of the resistance i.e. with improved contact conditions, and the stunning time simply depends on the length of the contact time. Hence both the current level and the time depend on the mechanical conditions prevailing at the point of electrode contact. Any improvement can in fact be made by simply trying out the two possibilities available i.e. changing the spring or associating the spring with a damper, which is, as shown, a most common combination of mechanical design components. If necessary, the decision as to what measures ought to be taken can, apart from changing the voltage, be made by a simple evaluation and test of these two mechanical possibilities. Such elementary experimentation is however, part of the normal duties of any engineer working in the field of stunning apparatus. Hence, the overcoming of the purported difficulties encountered by the skilled person charged with the improvement of such apparatus would not require capablities which are beyond those which can be attributed to such skilled person.

c) Likewise, the unsupported arguments on prejudice against the use of a damper reducing also the downward reaction speed of the electrodes when the animal lowers its head also lack conviction and additionally are irrelevant, in view of the wording of the Claim which merely includes a damper imposing drag on the upward movement of the electrodes.

9. For the foregoing reasons, the subject matter of the Claim lacks an inventive step as required by Article 56 EPC. Therefore it cannot be allowed having regard to Article 52(1) EPC.

ORDER

For these reasons, it is decided that: The appeal against the decision of the Examining Division of the EPO dated 1 December 1982 is dismissed.

The Registrar: The Chairman: