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Bezeichnung der Erfindung: Device for unloading radiographic cassettes in daylight
Title of invention:
Titre de l'invention :

Klassifikation / Classification / Classement : G03B 41/18

ENTSCHEIDUNG / DECISION
vom / of / du 2 November 1987

Anmelder / Applicant / Demandeur :

Patentinhaber / Proprietor of the patent / Titulaire du brevet : Agfa-Gevaert

Einsprechender / Opponent / Opposant : Kodak AG

Stichwort / Headword / Référence :

EPÜ / EPC / CBE : Article 56

Kennwort / Keyword / Mot clé : Inventive step (No)

Leitsatz / Headnote / Sommaire

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Case Number : T 324/86

D E C I S I O N
of the Technical Board of Appeal 3.4.1
of 2 November 1987

Appellant : (Opponent)
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Representative :

Respondent : (Proprietor of the patent)
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Representative :

Decision under appeal : Decision of Opposition Division of the European Patent Office dated 24 July 1986 rejecting the opposition filed against European patent No. 0 017 269 pursuant to Article 102(2) EPC.

Composition of the Board :

Chairman : K. Lederer
Members : E. Turrini
O. Bossung

Summary of Facts and Submissions

I. European patent No. 0 017 269 incorporating eight claims, was granted on 8 August 1984 on the basis of European patent application No. 80 200 177.6, filed on 29 February 1980.

Claim 1, the only independent claim reads as follows:

"A daylight cassette unloading and radiographic film dispensing apparatus comprising a light-tight cassette unloading chamber in communication with an entry opening of a light tight radiographic film storage chamber from which exposed film sheets can be supplied to a film processor for development of the latent radiographic images, said apparatus comprising means for locating a loaded cassette in a predetermined unloading position in said unloading chamber, and mechanisms for automatically opening such cassette in the said chamber and transferring a film sheet from the open cassette into said film storage chamber via said entry opening, and a dispensing mechanism within the storage chamber which operates, independently of said transfer mechanism, to dispense film sheets from said storage chamber, the storage chamber being placed in light-tight communication with the entrance of a film processor, characterised in that said film sheet transfer mechanism effects transfer of film sheets from the unloading chamber into the storage chamber at an average speed which is in excess of the speed of movement of film sheets through the processor, that said storage chamber is arranged in vertical orientation to hold the film sheets therein in the form of an upright standing stack above the dispensing mechanism and that said dispensing mechanism dispenses the film sheets to the processor one by one in the order in which they are received from the cassettes."

II. The Appellant filed notice of opposition against the European patent and requested revocation of the patent in its entirety on the grounds of non-patentability under Articles 52 to 57.

III. The Opposition Division rejected the opposition in a decision correctly posted on 24 July 1986 due to the fact that the subject-matter of Claim 1 relating to a daylight cassette unloading and radiographic film dispensing apparatus, is considered novel and involving an inventive step and is patentable under Articles 52 to 57 EPC.

In the decision, prior art documents DE-B-1 287 929 (A) and GB-A-1 501 116 (B) were mentioned among others.

IV. An appeal against the decision was lodged by the Appellant (Opponent) on 19 September 1986 and the appeal fee paid at the same time. The Appellant requested that the decision under appeal be set aside and the patent be revoked. As auxiliary request he asked for oral proceedings.

The Statement of Grounds was filed on 20 November 1986.

The Appellant supported his request by arguing as follows:

The preamble of Claim 1 belongs to the prior art (US-A-3 150 263 (C)). Starting from this knowledge, the problem to be solved is substantially on one hand to make the transfer of film sheets to the development processor quicker and easier and, on the other hand, to avoid that the film take up speed of the processor limits the speed of the other operations on cassettes and film sheets. Said problem is solved by the features of the characterising

portion of Claim 1. However, such features are known or directly deducible from prior art documents. In particular, a first feature that the "film sheets transfer mechanism effects transfer of film sheets from the unloading chamber into the storage chamber at an average speed which is in excess of the speed of movement of film sheets through the processor" follows directly from the teaching of document A. The features that "the storage chamber is arranged in vertical orientation to hold the film sheets therein in the form of an upright standing stack above the dispensing mechanism" (second feature) and that "said dispensing mechanism dispenses the film sheets to the processor one by one in the order in which they are received from the cassettes" (third feature) are also deducible from document A. For the skilled man it is a routine matter to modify the apparatus known from document C following the teaching of document A. Claim 1 is, therefore, not inventive.

V. The Respondent's (Patentee's) arguments can be summarised as follows:

There is agreement with the statement of the Appellant concerning the belongings of the preamble of Claim 1 to the prior art, the formulation of the problem to be solved and the solution represented by the characterising features of Claim 1. It is also noted that the above mentioned second and third features are taught by document A. However, the first feature cannot be derived from the teaching of document A, since said document does not even hint at the feeding of the storage chamber with the film sheets at a rate quicker than the processing speed. Finally, the device according to document A is a manually operated mechanism which is unsuitable for automated operation. Thus the skilled man would refrain from combining documents A and C together.

Reasons for the Decision

1. The appeal complies with Articles 106 to 108 and Rule 64 EPC and is, therefore, admissible.

2. There is no objection to the current version of claims, description and drawings as far as Article 123(2) EPC is concerned, since they are adequately supported by the original disclosure. In particular, present Claim 1 includes the features of Claim 1 as originally filed. Moreover, it includes features disclosed in the original description, page 4, lines 10 to 23 and features directly deducible from the original drawings, Figures 1 and 5 and the corresponding original description.

3. Novelty.

3.1 Document A refers to an intermediate storage and dispensing apparatus for radiographic film sheets (column 1, lines 22 to 29) comprising:

- a radiographic film sheet storage chamber (12, 13, 14 and 37), said storage chamber being arranged to contain more than one film sheet (23) and having a vertical orientation to hold the film sheets therein in form of a stack with the sheets standing upright;

- an entry opening (17) connected with the storage chamber;

- an automatic dispensing mechanism (18, 19, 21, 24, 32, 33, 34, 35) which operates to dispense film sheets from said storage chamber to a processor for development of the latent radiographic images (column 4, lines 34 to 40), the storage chamber being positioned above the

dispensing mechanism, which delivers the film sheets to the processor one by one in the order in which they are received from the entry opening (17);

- the apparatus being such that the transfer speed of the film sheets to the storage chamber can be higher than the dispensing speed to the processor.

Contrary to the subject-matter of Claim 1, the apparatus according to document A is not suited for daylight operations and for unloading a film sheet from a daylight cassette. Moreover, the film sheets are transferred to the storage chamber manually, i.e. there is no transfer mechanism between the entry opening and the storage chamber, and a correlation between the transfer and the dispensing speed is not given.

3.2 Document B (Figures 1 and 2 and corresponding description) refers to a daylight cassette unloading and radiographic film dispensing apparatus (page 1, lines 14 to 27) comprising:

- a light-tight cassette unloading chamber (8) (page 1, line 29) including means for locating a loaded cassette (11) in a predetermined unloading position in said unloading chamber (8), an opening mechanism (19 to 24, 26 to 31) for automatically opening such cassette (11) in said unloading chamber (8), and an automatic transfer mechanism (50 to 52) for transferring a film sheet from the open cassette into a film storage chamber (9) via an entry opening;

- the storage chamber (9) being light-tight; (page 1, lines 32 and 33); and

- an automatic dispensing mechanism (54), operating at lower speed than the transfer mechanism (50 to 52) and dispensing the film sheets one by one to the processor in the order they are received from the cassettes, the storage chamber being placed in light-tight communication with the entrance of the processor.

Contrary to the subject-matter of Claim 1, the storage chamber of the apparatus according to document B is an intermediate chamber arranged to store only one film sheet at a time. Consequently, the feeding rate of the sheets through the entry opening corresponds to the feeding rate through the processor, although the dispensing mechanism operates at lower speed than the transfer mechanism, and there is obviously no stack. Moreover, the sheet in the storage chamber is not positioned vertically and said chamber is not above the dispensing mechanism.

3.3 The other cited prior art documents are more remote from the subject-matter of Claim 1 and, therefore, do not warrant detailed consideration here.

3.4 For the above reasons, the subject-matter of Claim 1 is deemed to be novel within the meaning of Article 54 EPC.

4. Inventive step.

4.1 In order to determine whether the subject-matter of Claim 1 involves an inventive step, it is first necessary to objectively determine the problem to be solved by identifying the nearest prior art and then establishing, starting from said prior art, what results are achieved by the apparatus claimed.

The apparatus according to document A is, in the Board's opinion, the nearest prior art.

Starting from the disclosure of this document, the problem underlying the present invention is to obtain an apparatus which can operate under daylight conditions, is fully automatic, is suitable for film sheets enclosed in cassettes and such that waste of time while feeding the cassettes is avoided.

4.2 Said problem is solved, as set out in Claim 1, by providing the apparatus with a cassette opening and unloading mechanisms, by rendering the whole apparatus fully automatic and light-tight and by simultaneously effecting the sheet transfer and dispensing operation, whereby the transfer speed is higher than the dispensing speed.

4.3 The identification of the problem is per se not inventive. The general addressee at the priority date of the present invention is aware of the utilisation of light-tight cassettes for film sheets as appears e.g. from document B. He would, therefore, try to up-date the known old apparatus with a cassette opening mechanism.

Moreover, he would easily recognise that manual operation and the necessity of keeping the apparatus under darkroom conditions are remarkable drawbacks, which should be avoided. The mere idea of operate under daylight conditions and of rendering the apparatus automatic does, therefore, imply nothing but the usual skill of the average technician.

Finally, the skilled man would try, following the trend for many years, to speed-up the procedures, avoiding waste of time while feeding the cassettes in the apparatus.

4.4 As far as the solution of this problem is concerned, the skilled man would look at prior art apparatuses for unloading film sheets from light-tight cassettes and he would indeed be expected to consider document B.

Said document (cf. section 3.2 of the present decision) would teach him to complete the known intermediate storage and dispensing apparatus with a cassette unloading chamber including means for locating the cassette, a cassette opening mechanism and a transfer mechanism. It would also suggest to him to render the whole apparatus automatic and light-tight.

Finally, the skilled man, aiming at speeding-up the procedures, would recognise that an obvious solution to this object is to provide means for operating the transfer mechanism simultaneously to and more quickly than the dispensing mechanism so as to utilise the storage chamber as sheet accumulator during the operation of the processor and consequently avoid any waiting time in the cassette feeding. Document A does not interfere with said solution, because the apparatus according to document A is such that transfer speed of the film sheets to the storage chamber can be higher than the dispensing speed to the processor. Indeed, the storage chamber positioned between entry opening and dispensing mechanism according to document A suggests to accumulate quickly the sheets in the storage chamber without any care to the processing speed.

4.5 The Opposition Division's view, substantially in agreement with that of the Respondent, that "it is absolutely unrealistic to combine a modern daylight cassette unloading and radiographic film dispensing apparatus" with a "manually operated fan-shaped storage" as that disclosed in document A, cannot be shared by the Board.

It may well be true that document A relates to the times "when no daylight cassette unloading and radiographic film dispensing apparatus comprising a light-tight cassette unloading chamber were known". It is, however, a normal praxis for the skilled man starting from an old document (in the present case, document A) which relates to an apparatus operating on predetermined means (film sheets without cassettes), to look at other more up-to-date documents (in the present case, document B) for adapting said apparatus to means (film sheets enclosed in light-tight cassettes) which have been substantially changed. Thus, the combination of the teaching of documents A and B can be expected by the average technician.

4.6 For the above reasons, the subject-matter of Claim 1 lacks inventive step (Article 56 EPC) and is, therefore, not allowable under Article 52(1) EPC.

4.7 Claims 2 to 8 are referred back to non-allowable Claim 1. This dependency renders Claims 2 to 8 also not allowable.

Order

For these reasons, it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairman:

F. Klein K.Lederer