

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JURG VOLLENWEIDER

Appeal No. 1998-2179
Application No. 08/433,231

HEARD: May 1, 2000

Before COHEN, McQUADE, and BAHR, Administrative Patent Judges.
BAHR, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-23, which are all of the claims pending in this application.

BACKGROUND

The appellant's invention relates to a process and to an apparatus for storing stackable, sheet-like blanks wherein the blanks are delivered individually one after the other to an intermediate store which comprises a stack of the blanks and then withdrawn from the intermediate store and fed in a continuous stream to a winding station where they are wound into a roll (specification, page 2). Further understanding of the invention can be derived from a reading of exemplary claims 1 and 12, which appear in the appendix to the appellant's brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:¹

Newsome	4,771,896	Sep. 20, 1988
Reist	4,898,336	Feb. 6, 1990
Schall (German patent document)	4,235,452	Apr. 28, 1994
Shimanis et al. (Shimanis) (Russian patent document)	1,070,102	Jan. 30, 1984

The following rejections are before us for review.

1. Claims 12, 19 and 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Newsome in view of Reist.

¹ English language translations of the Schall and Shimanis references, prepared for the PTO, are appended hereto.

2. Claim 13 stands rejected under 35 U.S.C. § 103 as being unpatentable over Newsome in view of Reist, as applied to claims 12, 19 and 20 above, and further in view of Schall.

3. Claims 1-11, 14-18 and 21-23 stand rejected under 35 U.S.C. § 103 as being unpatentable over Newsome in view of Reist, Schall and Shimanis.

Reference is made to the brief (Paper No. 17) and the answer (Paper No. 18) for the respective positions of the appellant and the examiner with regard to the merits of these rejections.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations which follow.

Newsome discloses an apparatus which takes stacks of pre-formed, stored printed signatures and forms them into a uniform shingle, running at extremely high velocity, for transport into a processing device (abstract) and teaches that running shingles have been formed as a convenient way of transporting signatures from one location to another and into further processing devices "such as quarter-folders (to make a double-folded signature), to labeling machines, to stackers, etc." (column 1, lines 29-33). The Newsome apparatus comprises a first conveyor (belts B1, B2, B3) onto which stacks 10 of signatures are loaded by a human

operator and spread into a rough shingle and conveyed to a holding location 15 and a second conveyor (belt B4) for periodically stripping off successive signatures from the holding location to form a uniform shingle which is transported at high speed to a processor. A barrier or stop means comprising stop tubes 85 carrying flat plates 85a are located at the holding location 15 such that signatures of the rough shingle flowing inwardly will have their leading edges strike the plates, thereupon to fall vertically downward so as to create a vertical queue stack 16. The second conveyor comprises a belt B4 having a plurality of rows of holes 105 spaced a distance S apart. A vacuum chamber 110 having vacuum slots 106 in the top surface thereof is located beneath the belt B4 such that, when the holes 105 of the belt B4 are aligned with the slots 106, air is sucked downwardly through the belt. The weight of the vertical queue stack is controlled and limited so that until a row of holes 105 reaches the vacuum slots 106, the belt B4 may slide or slip relative to the lowest non-moving signature in the queue stack. As a result, a given signature at the bottom of the queue stack is not moved forwardly with the belt when the preceding signature begins to move. Rather, that given signature remains stationary until such time as the preceding signature has moved a distance equal to the spacing S between the successive rows of holes. Thus, successive signatures are started seriatim and pushed forwardly through the gate beneath the tips 85b of the tubes 85 with the leading edge of each signature trailing that of the preceding signature by a shingle setback SSB equal to the spacing S (column 9, lines 40-56 and Figures 10 and 11).

Reist discloses an apparatus for the continuous winding-up or winding-off of substantially flat products, such as printed products in an imbricated or shingled formation, into a package or from a package (column 1, lines 9-20). The apparatus comprises a rotatably driven winding core member 19 and a conveyor 16 which merges with a conveyor band or belt arrangement 14 having deflection rolls or rollers 15 and 29 trained by a pair of conveyor bands or belts 30 and 31. The conveyor band or belt arrangement 14 is mounted on a frame 28 which is upwardly biased by a spring 35 so that the conveyor bands or belts 30, 31 are forced against the outer circumference of the product W wound about the core member 19. As illustrated in Figure 1, products Z are conveyed in imbricated form via the conveyor 16 to the conveyor band or belt arrangement 14 and transferred to the winding core member.

Turning first to the examiner's rejection of claims 12, 19 and 20, the examiner finds that Newsome lacks a winding means as required by independent claim 12 but takes the position that it would have been obvious to provide Newsome with a winding means, as taught by Reist, for the purpose of winding the streams of blanks into rolls to facilitate the replacement and transportation of the rolls (answer, page 4). With regard to this proposed modification of Newsome, the appellant argues that

[t]o wind up the formation 11 shown in Figure 3 of the Newsome reference makes no sense since the Newsome '896 patent teaches forming a uniform product stream 11 in order to facilitate the subsequent processing. It would have made no sense for a person skilled in the art to employ the apparatus as proposed by the Newsome '896 patent to store again in a roll the documents previously stored in stacks [brief, page 9].

The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. See In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991) and In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). Indeed, a *prima facie* case of obviousness is established where the reference teachings would appear to be sufficient for one of ordinary skill in the art having those teachings before him to make the proposed combination or modification. See In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

As discussed above, Newsome discloses that running shingles, such as the uniform shingle 11 formed by the disclosed apparatus, have been formed as a convenient way of transporting signatures from one location to another and into further processing devices such as quarter-folders, labeling machines, stackers, etc. Reist discloses a device for winding-up products, such as printed products conveyed in imbricated (shingle) formation. From our perspective, one of ordinary skill in the art would have recognized the Reist winding apparatus, into which printed products are conveyed in the form of a running shingle, as the type of processing device referred to by Newsome and, as such, would have been motivated, by the combined teachings of Newsome and Reist, to use the running-shingle formation apparatus of Newsome to transport printed signatures to a winding apparatus as taught by Reist to form the products into a package. The appellant's argument that it would have made no sense to use the Newsome apparatus to store again the documents previously stored in stacks 10 is not well

taken, in light of Newsome's teaching that running shingles are a convenient way of transporting signatures into processing devices such as stackers (an alternative form of storage), etc. As disclosed by Newsome, the output of a printing press is often stored for subsequent processing for various reasons. In these cases, the output of the signature-forming machine is converted into stacks for storage and the stacks are later fed into a processing device of one kind or another (column 1, lines 37-49). This discussion of Newsome explains to our satisfaction why one of ordinary skill in the art would have been motivated to convert the signatures to stacks for temporary storage before feeding them to a winding apparatus of the type taught by Reist to form a package.

The appellant's brief (page 8) also states that claim 12 "expressly recites that the blanks are fed one after the other which, as illustrated and described in the [appellant's] specification, means not overlapping," which we interpret as an argument that Newsome, even if modified as proposed by the examiner, would not meet the limitation "first conveying means for feeding the blanks individually one after the other" in independent claim 12. For the reasons which follow, we do not find this argument persuasive with regard to apparatus claims 12, 19 and 20.

In proceedings before it, the PTO applies to the verbiage of claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions

or otherwise that may be afforded by the written description contained in the applicant's specification. In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997).

The appellant and the examiner disagree as to whether the language "individually one after the other" precludes an overlapping conveyance as disclosed by Newsome on the first conveyor. Appellant's Figure 2 illustrates the blanks 5 being conveyed on the first conveyors 14-17, upstream of the intermediate stores 18-21, in non-overlapping fashion. Furthermore, the appellant's specification states, on page 4, that "the blank stack, serving as intermediate store, also makes it possible for the blanks, initially occurring individually one after the other, to be made into an imbricated stream" and, on page 5, that "with the provision of an imbricated formation, more blanks can be fed to the winding core per unit of time than with the provision of a blank stream with blanks arranged individually one after the other." From our perspective, the appellant's specification makes clear that "individually one after the other" as used in the specification and claims refers to a non-overlapping formation, a definition which appears to us to be consistent with the ordinary and customary usage of this language. Therefore, we accept the appellant's interpretation of the language "individually one after the other" as precluding overlapping.

With regard to apparatus claim 12, however, we note that this language appears in a means-plus-function clause "first conveying means for feeding the blanks individually one after the other to an intermediate store." Consistent with the sixth paragraph of 35 U.S.C. § 112, in

construing means-plus-function language in a claim, we must look to the appellant's specification and interpret that language in light of the corresponding structure, material or acts described therein, and equivalents thereof, to the extent that the specification provides such disclosure. See In re Donaldson Co., 16 F.3d 1189, 1193, 29 USPQ2d 1845, 1848 (Fed. Cir. 1994). Looking to the appellant's specification (page 7), we are informed that the first conveying means for feeding the blanks 5 individually one after the other to the intermediate store 18-21 are conveying belts 14-17. Therefore, the language of claim 12 must be read to cover a conveying belt or its equivalent. As the first conveyor of Newsome comprises conveyor belts B1, B2, B3 for feeding the printed signatures to the vertical queue stack 16 and as the Newsome conveyor belts B1, B2, B3, like the conveyor belts 14-17 disclosed in appellant's specification, convey the articles placed thereon in a formation dictated by the deposition of such articles on the belts, we are satisfied that the first conveyor of Newsome meets the "first conveying means" limitation of claim 12.

For the foregoing reasons, we shall sustain the examiner's rejection of independent claim 12 and claims 19 and 20 which stand or fall therewith (see brief, page 4).

We shall also sustain the examiner's rejection of claim 13 as being unpatentable over Newsome in view of Reist and Schall. Claim 13 depends from claim 12 and adds the further limitation that the first and second conveying means are oriented so as to be "substantially perpendicular" to each other. We agree with the examiner's position that merely to dispose the

first conveyor (belts B1, B2, B3) and the second conveyor (belt B4) of Newsome in a substantially perpendicular orientation, a well known and conventional conveying arrangement as illustrated by Schall, for example, in order to obtain the self-evident advantages thereof, such as efficient use of processing space and re-orientation of conveyed articles where desired, is not a patentable distinction over the Newsome reference.²

Turning next to the examiner's rejection of claims 1-11, 14-18 and 21-23 as being unpatentable over Newsome in view of Reist, Schall and Shimanis, we note that claim 21 differs from claim 12, discussed above, in that claim 21 requires a plurality of first and second conveying means. While we appreciate that none of the references applied by the examiner in rejecting these claims expressly teaches providing a plurality of the running shingle forming apparatus disclosed by Newsome, we also observe that, while there must be some suggestion or motivation for one of ordinary skill in the art to make the proposed modification or combination, it is not necessary that such be found within the four corners of the references themselves; a conclusion of obviousness may be made from common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference. See In re Bozek, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA

² In an obviousness assessment, skill is presumed on the part of the artisan, rather than the lack thereof. In re Sovish, 769 F.2d 738, 743, 226 USPQ 771, 774 (Fed. Cir. 1985). Insofar as the references themselves are concerned, we are bound to consider the disclosure of each for what it fairly teaches one of ordinary skill in the art, including the inferences which one of ordinary skill in the art would reasonably have been expected to draw therefrom. See In re Boe, 355 F.2d 961, 965, 148 USPQ 507, 510 (CCPA 1966) and In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

1969). In this instance, one of ordinary skill in the document handling art would have appreciated the advantages of providing multiple processing units to increase production. Accordingly, we conclude that to provide a plurality of Newsome's running shingle-forming devices feeding printed signatures to a corresponding plurality of winding devices of the type taught by Reist in order to increase production would have been obvious to such a skilled artisan, even without any express suggestion to do so in the applied references.

The appellant's only additional arguments in support of the patentability of claim 21 are the same arguments advanced with regard to claim 12, discussed above. For the same reasons cited above in our discussion of the examiner's rejection of claim 12, we find these arguments unpersuasive as to the patentability of claim 21. Therefore, we shall sustain the examiner's rejection of claim 21. As the appellant has elected not to separately argue the patentability of dependent claim 23 apart from claim 21, we shall treat claim 23 as standing or falling with claim 21 and thus also sustain the examiner's rejection of claim 23.³

As to claim 22, which depends from claim 21, the appellant's only additional argument (brief, page 13) is directed to the perpendicular arrangement of the first and second conveying means. For the reasons cited above with regard to claim 13, we do not find the appellant's argument persuasive. Therefore, we shall also sustain the examiner's rejection of claim 22.

³ See *In re Young*, 927 F.2d at 590, 18 USPQ2d at 1091 (Fed. Cir. 1991); *In re Wood*, 582 F.2d 638, 642, 199 USPQ 137, 140 (CCPA 1978).

As the appellant has elected not to separately argue the patentability of claims 14-18 apart from claim 12 (see brief, page 12), we shall treat these claims as standing or falling with claim 12. As we have sustained the examiner's rejection of claim 12, supra, as being unpatentable over Newsome in view of Reist, we shall thus also sustain the examiner's rejection of claims 14-18 as being unpatentable over Newsome in view of Reist, Schall and Shimanis.

We shall not, however, sustain the examiner's rejection of claims 1-11, which are directed to a process for storing blanks. As discussed above, we interpret the language "individually one after the other" as precluding overlapping. Newsome discloses conveying the printed signatures only in the form of a rough shingle 14 upstream of the holding location 15 and in the form of a uniform running shingle 11 downstream of the holding location and, as such, lacks a step of "feeding the blanks individually one after the other" as required in each of claims 1-11. While we have reviewed the teachings of Reist, Schall and Shimanis, we find nothing therein which overcomes the above-noted deficiency of Newsome.

Accordingly, we cannot sustain the examiner's rejection of claims 1-11.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1-23 under 35 U.S.C. § 103 is affirmed as to claims 12-23 but reversed as to claims 1-11. The examiner's decision is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

IRWIN CHARLES COHEN)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
JOHN P. McQUADE)	APPEALS
Administrative Patent Judge)	AND
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