

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID CLARK POLLOCK

Appeal No. 2000-1639
Application No. 08/923,449

ON BRIEF

Before FRANKFORT, STAAB, and McQUADE, Administrative Patent Judges.

STAAB, Administrative Patent Judge.

DECISION ON APPEAL

David Clark Pollack appeals from the examiner's final rejection of claims 1, 2 and 8-22 and 24-37.¹ Claims 3-7 have been canceled.

¹Appellant states on page 1 of the brief that the finally rejected claims are "claims 1, 2, 8-22 and 24-37 (claim 23 having erroneously not been submitted)." The appendix of claims on appeal attached to appellant's brief follows this claim numbering. In accordance with 37 CFR § 1.126, claims 24-37 should be renumbered claims 23-36, respectively. In this decision, in order to avoid confusion, we will follow the claim numbering found in the aforementioned appendix of claims.

Appellant's invention pertains to an apparatus for decelerating and shingling "signatures."² With reference to appellant's Figure 1, the apparatus includes a folder (2) for folding a web (1), cutting cylinders (11.1, 11.2) for cutting the web into individual signatures, and a tape system (20) comprising first and second tapes or belts (23, 24) forming an arcuate path for receiving the individual signatures, the tape system running at a tape system speed greater than the web speed. The apparatus further includes a first conveyor (30) having a first knock-down wheel (31) downstream of the tape system for receiving signatures from the tape system, the first conveyor running at a first conveyor speed slower than the tape system speed thereby forming the signatures into a first stream of shingled signatures traveling at the first conveyor speed, and a second conveyor (33) having a second knock-down wheel (34) downstream of the first conveyor for receiving the first stream of shingled signatures, the second conveyor running at a second conveyor speed slower

²According to *Webster's II New Riverside University Dictionary* (copyright © 1984 by Houghton Mifflin Company), the word "signature" may mean "[a] large sheet printed with four or a multiple of four pages that when folded becomes a section of [a] book."

Appeal No. 2000-1639
Application No. 08/923,449

than the first conveyor speed thereby forming the signatures into a second stream of shingled signatures traveling at the second conveyor speed.

A copy of the appealed claims is found in the appendix to appellant's brief.

The references relied upon by the examiner in the final rejection are:

Marschke	4,200,276	Apr. 29, 1980
Craemer et al. (Craemer)	4,240,856	Dec. 23, 1980
Jeschke et al. (Jeschke)	4,344,610	Aug. 17, 1982
Reponty	5,102,111	Apr. 7, 1992

The claims stand finally rejected under 35 U.S.C. § 103 as follows:³

³While the examiner has not expressly repeated all of the rejections applicable to the claims before us on appeal in the examiner's answer (Paper No. 21), it is clear from a review of the final rejection, appellant's brief (Paper No. 20) and the totality of the examiner's answer that the rejections as stated below are those that are before us for consideration on appeal. We are at a loss to understand why all of the applicable prior art references and rejections were not repeated in the examiner's answer. Normally, rejections of claims which are not repeated in the answer are considered to have been withdrawn by the examiner. See, for example, *Ex parte Emm*, 118 USPQ 180, 181 (Bd. App. 1957). In the present case, we note that appellant's grouping of the claims as set forth on page 4 of the brief in no way relieves the examiner of the obligation to expressly state in the answer exactly what references and rejections are applicable to the appealed claims.

Appeal No. 2000-1639
Application No. 08/923,449

(a) claims 1, 2, 8-19, 22, 24-33, 36 and 37, unpatentable over Jeschke in view of Craemer and Marschke; and

(b) claims 1, 2, 8-22 and 24-37, unpatentable over Jeschke in view of Craemer and Marschke, and further in view of Reponty.

Discussion

The claims on appeal include four independent claims. Independent claim 1 is directed to a device for delivering signature comprising, *inter alia*, a tape system running at a first tape system speed greater than the web speed, a first conveyor belt downstream of the tape system running at a first conveyor speed slower than the tape system speed, and a second conveyor belt downstream of the first conveyor belt running at a second conveyor speed slower than the first conveyor speed. Independent claim 36 contains limitations similar to those of claim 1. Independent claim 2 is directed to a device for slowing down signatures comprising, an arcuate tape system, a first conveyor belt downstream of the tape system operating at a first conveyor speed, and a second conveyor belt downstream of the first conveyor belt operating at a second conveyor speed less than the first conveyor speed. Independent claim 37 contains limitations similar to those of claim 2.

Looking first at the rejection based on Jeschke in view of Craemer and Marschke (rejection (a)), the examiner considers (answer, page 1) that Jeschke discloses a device for cutting a web into folded signatures which are later shingled, the device comprising a web (1), a folder (2) for folding the web, a cutter (11, 12) for converting the web into signatures, a tape system for receiving the signatures, and a first conveyor (28) for receiving signatures from the tape system, with the first conveyor running at a speed slower than the tape system. The examiner acknowledges (answer, pages 1-3) that Marschke does not disclose (i) a first knock-down wheel for the first conveyor, (ii) a second conveyor downstream of the first conveyor running at a speed slower than the first conveyor, (iii) a second knock-down wheel for the second conveyor, and (iv) the tape system running at a speed greater than the web speed.

The examiner turns to Craemer for a teaching of deficiencies (i), (ii) and (iii). According to the examiner:

Craemer discloses using two conveyor belts . . . to shingle . . . sheets for the purpose of maintaining the exit speed of the shingler constant while allowing the processing speed of an upstream cutter and folder to vary. As shown in Figure 2 of Craemer et al., the speed of the second conveyor belt (28) is constant while the speed of the first conveyor belt varies to

Appeal No. 2000-1639
Application No. 08/923,449

accommodate variations in the speed of upstream processing devices (note cutters 18 whose speed is also shown in Figure 2). The knock-down wheels are provide above the conveyor belts for the purpose of preventing a sheet leaving the tape system from becoming airborne at high speeds . . . and allowing for consistent shingling. [Answer, page 2.]

The examiner concludes that it would have been obvious to one of ordinary skill in the art at the time of appellant's invention to provide Marschke with items (i), (ii), and (iii) in view of Craemer.

The examiner turns to Marschke for a teaching of deficiency (iv). In the examiner's view, Marschke discloses

a cutting and shingling device in which webs are cut, fed to [a] tape system running at a faster speed than the web speed, and finally shingled on a downstream conveyor. The tape system speeds up the cut sheets in order to separate the sheets from their abutting relationship so that they are suitably spaced apart for shingling [Answer, page 3.]

Based on this teaching, the examiner concludes that it also would have been obvious to modify Jeschke by speeding up the tape system as disclosed by Marschke in order to separate the sheets from their abutting relationship so that they are suitably spaced apart for shingling.

Because we do not agree with the examiner that it would have been obvious to modify Jeschke by providing a second conveyor belt downstream of Jeschke's conveyor (28) traveling at a speed

Appeal No. 2000-1639
Application No. 08/923,449

slower than conveyor (28) based on the teachings of Craemer, we will not sustain the examiner's rejection.

Jeschke is similar to appellant's apparatus in that it pertains to an apparatus for folding a paper web and cutting it into individual copies that are then fed to a downstream shingling conveyor. Of particular concern to Jeschke is the configuration and operation of the cross cutting unit (11, 12), the details of which are not pertinent to the obviousness issues before us.

In contrast, Craemer pertains to an apparatus for making a corrugated paperboard product. Craemer's corrugator includes a double facer machine (12), a shear knife (14), a slitter-scorer (16), a cut-off (18), a downstream shingling conveyor comprising a first conveyor (26) and a second conveyor (28), and a sheet stacker (not shown), in that order. In the "**BACKGROUND**" section of the specification, Craemer describes a deficiency of prior art corrugators as follows:

Upon completion of one production order, it is conventional to sever the web and create a large gap to thereby facilitate adjustments of the slitter-scorer and/or cut-off. The gap is conventionally attained by substantially decreasing the speed of the double facer machine while the web section is processed at the previous speed of the double facer machine. . . .

Appeal No. 2000-1639
Application No. 08/923,449

During any given day, the production order changeover may occur as often as 6 to 7 times. The repetitive acceleration and deceleration of the speed of the double facer machine over a wide speed range with its attendant corresponding changes on the apparatus for controlling transfer of heat to the web is considered to be undesirable from a quality standpoint. More uniform quality is attained if the double facer machine speed remains at a constant. [Column 1, lines 10-27.]

It is therefore an objective of Craemer

[to create] a gap in a paperboard web which minimizes one operating characteristic which has a tendency to affect quality [i.e., repetitive acceleration and deceleration of the double facer machine] while at the same time assuring that a gap will be maintained between shingled sheets of one production order and shingled sheets of the next production order. [Column 2, lines 37-42.]

Craemer's method of providing a gap between production orders is accomplished

by increasing the speed of the shingling conveyor to a second substantially higher speed prior to the last sheet of the web section being deposited on the shingling conveyor. When the first sheet of the new production order is deposited on the shingling conveyor, the speed of the shingling conveyor is decreased from said second speed to said first speed thereby maintaining a gap on the shingling conveyor between the sheets of the old production order and the next production order. [Column 2, lines 21-30.]

In addition, the slitter-scoring (16) and cut-off (18) located downstream of the double facer (12) may be adjusted at

this time between production orders while they are temporarily disposed within the gap (column 2, lines 14-17).

The specifics of Craemer's method are depicted in Figure 2, where it is seen that when it is desired to create a temporary gap in a stream of paperboard products, the speed of the first conveyor (26) of the corrugator is gradually ramped up from its normal operating speed of about 10% of the speed of the double facer (12) to a speed of about 50% of the speed of the double facer (to create the gap), then held at that speed for a short while, and then decreased back to its normal speed of about 10% of the speed of the double facer (12). It can also be seen in Figure 2 that while this occurs, the speed of the double facer (12) and second conveyor (28) remain constant.

The difficulty we have with the examiner's position is that we see no cogent reason for providing a second downstream conveyor in Jeschke and operating it in a manner which would satisfy the claim requirement that the second downstream conveyor runs at a slower speed than the first upstream conveyor based on the teachings of Craemer. In this regard, the purpose for which Craemer's conveyors are provided and the way they operate is to create a gap between production runs while permitting the upstream double facer to run at a constant speed without

Appeal No. 2000-1639
Application No. 08/923,449

accelerating or decelerating. The examiner has not established, and it is not apparent to us, that holding the speed of any of Jeschke's upstream units is a matter of concern. Accordingly, there does not appear to be any reason, aside from the hindsight knowledge afforded one who first reads appellant's disclosure, for providing items (ii) and (iii) in Jeschke based on the teaching of Craemer. Because the Marschke reference additionally relied upon in the rejection of claims 1, 2, 8-19, 22, 24-33, 36 and 37 does not make up for the deficiencies of Jeschke and Craemer in this regard, the rejection of these claims based on Jeschke, Craemer and Marschke cannot be sustained.

As to the rejection of claims 1, 2, 8-22 and 24-37 based on Jeschke in view of Craemer and Marschke and further in view of Reponty (rejection (b)), we have reviewed the Reponty reference additionally relied upon and find that it does not remedy the deficiencies of Jeschke, Craemer and Marschke noted above. Accordingly, the rejection of claims 1, 2, 8-22 and 24-37 as being unpatentable over the combined teachings of Jeschke, Craemer, Marschke and Reponty also cannot be sustained.

Appeal No. 2000-1639
Application No. 08/923,449

The decision of the examiner is reversed.

REVERSED

CHARLES E. FRANKFORT)	
Administrative Patent Judge)	
)	
)	
)	BOARD OF PATENT
LAWRENCE J. STAAB)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
)	
)	
)	
JOHN P. McQUADE)	
Administrative Patent Judge)	

LJS:hh

Appeal No. 2000-1639
Application No. 08/923,449

KENYON & KENYON
ONE BROADWAY
NEW YORK, NEW YORK 10004