

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KOUICHI FUKUMORI, AKIRA MURAKI, YUJI UEMURA,
MASANOBU OKUMURA, NOBUKI YAMANA,
HIROKATSU SHITO HITO, YUKINORI SHIBUYA

Appeal 2008-2275
Application 10/207,807
Technology Center 3700

Decided: October 29, 2008

Before LINDA E. HORNER, ANTON W. FETTING, and
MICHAEL W. O'NEILL, *Administrative Patent Judges*.

HORNER, *Administrative Patent Judge*.

DECISION ON APPEAL
STATEMENT OF THE CASE

Kouichi Fukumori et al. (Appellants) seek our review under 35 U.S.C. § 134 of the final rejection of claims 1-5. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

SUMMARY OF DECISION

We REVERSE.

THE INVENTION

The Appellants' claimed invention relates to a roll baler that is capable of feeding the baler-shaping material of short length into the bale chamber through an inlet port in the bale chamber by way of a transporting conveyor, while making it possible to smoothly open and close the rear chamber of the bale chamber (Spec. 6). Claim 1, reproduced below, is the sole independent claim and is representative of the subject matter on appeal.

1. An improved roll-baler, which comprises:
 - a hopper (2), a conveyor (3) transporting bale-shaping material from a discharge port (20) of said hopper (2), and a bale chamber {4} for receiving therein said bale shaping material conveyed by said transporting conveyor 3 through an inlet port "a" to shape the bale shaping material into a roll-bale,
 - said hopper, conveyor and bale chamber all fixed on a machine body (1), wherein said bale chamber (4) is mounted on said machine body at a position where said inlet port "a" for the bale-shaping material is open to a frontward direction thereof, and
 - an endless conveying belt (30) extending between a first pulley (31) at a pick-up end of said conveying belt (30) below said hopper and a second pulley at a terminal delivery end of the conveying belt (30) located within said bale chamber (4) at a height below that of said first

Appeal No. 2008-2275
Appl. No. 10/207,807

pulley, wherein a third pulley (33) is located between the first pulley and the second pulley to support a first portion of said conveying belt between said first pulley and said third pulley to be substantially level and to support a second portion of said conveying belt (30) between the third pulley and the second pulley as an inclined surface “c” which is downwardly slanted toward a rear direction,

wherein said inclined surface “c” is mounted on said machine body (1) by locating said terminal second portion at a position which forms a part of a surrounding wall of said bale chamber (4) in continuous engagement against a lower half side of the roll-bale when formed within said bale chamber 4 and

wherein said inclined surface “c” discharges a complete roll-bale after an upper portion of said bale chamber is rotated up from said inclined surface “c”.

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Patz	US 3,826,354	Jul. 30, 1974
Crawford	US 4,022,121	May 10, 1977
Cole	US 4,567,998	Feb. 4, 1986
Sacht	GB 2 210 824 A	Jun. 21, 1989

The following rejections are before us for review:

1. Claims 1, 4, and 5 are rejected under 35 U.S.C. § 103(a) as unpatentable over Cole and Sacht.

Appeal No. 2008-2275
Appl. No. 10/207,807

2. Claim 2 is rejected under 35 U.S.C. § 103(a) as unpatentable over Cole, Sacht, and Patz.
3. Claim 3 is rejected under 35 U.S.C. § 103(a) as unpatentable over Cole, Sacht, and Crawford.

ISSUE

The issue before us is whether the Appellants have shown the Examiner erred in determining that the inclusion of the conveyor and discharging mechanism of Sacht in the baler of Cole would have resulted in the roll-baler of claim 1.

FINDINGS OF FACT

We find that the following enumerated findings are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

1. Cole discloses a hay baler 10 including a chemical dispenser 40 comprising a hopper 42 (Cole, col. 3, ll. 3-6; Figs. 2 & 3).
2. In Cole's baler, hay is delivered to the hay baling chamber by a hay lifter 26 having tines 28 that rotate and deliver hay to a continuous mat 30 conveyed by a plurality of rotatable laterally-spaced angle-iron bearing chains 32 (Cole, col. 2, ll. 56-65).
3. Cole does not disclose a conveyor that is positioned in relation to the hopper such that it would be capable of transporting bale-

Appeal No. 2008-2275
Appl. No. 10/207,807

shaping material from a discharge port of the hopper were the hopper used for bale-shaping material instead of chemicals.

4. Sacht discloses a hay baler having a conveyor 12 consisting of one or more endless belts, a gap 16 at the lowest front position of the casing for entry of material to be baled, and a pick-up 17 supported in front of and below the gap (Sacht, p. 5, ll. 16-24, Fig. 1).
5. Thus, Sacht also discloses that the hay is deposited on its conveyor by a hay lifter using tines, rather than depositing the hay on the conveyor via a discharge port of a hopper.

PRINCIPLES OF LAW

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 127 S. Ct. at 1734 (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”)

ANALYSIS

Claim 1 is the sole independent claim and recites a roll-baler including “a conveyor (3) transporting bale-shaping material from a discharge port (20) of said hopper (2).” Thus, claim 1 recites a structural relationship between the conveyor and the hopper. In particular, claim 1 requires the conveyor to be located relative to the hopper such that it receives bale-shaping material from the discharge port of the hopper.

The Appellants contend the Examiner erred in rejecting claim 1 because hopper 42 of Cole, which does not deposit bale shaping material on a conveyor, is not the same as the claimed hopper (App. Br. 10-11; Reply Br. 1-2). We agree with the Appellants.

Cole discloses a hay baler including a hopper for dispensing chemicals and in which hay is delivered to a hay baling chamber by a hay lifter which lifts hay onto a conveyor (Facts 1 & 2). Cole does not disclose a conveyor that is positioned in relation to the hopper such that it would be capable of transporting bale-shaping material from a discharge port of the hopper were the hopper used for bale-shaping material instead of chemicals (Fact 3). Sacht also discloses that the hay is deposited on its conveyor by a hay lifter using tines, rather than depositing the hay on the conveyor via a discharge port of a hopper (Facts 4 & 5).

As such, even when the teachings of Cole and Sacht are combined, the combination would not have led one having ordinary skill in the art to modify the conveyor of Cole such that it would be located in a position relative to the discharge port of the hopper to transport bale-shaping material

Appeal No. 2008-2275
Appl. No. 10/207,807

from a discharge port of the hopper to the bale chamber. As such, we will not sustain the rejection of claims 1, 4 and 5 as unpatentable over Cole and Sacht.

The Examiner relied on Patz in the rejection of claim 2 to teach an adjustable hopper with sliding walls (Ans. 4). The Examiner determined that it would have been obvious to use Patz's hopper in place of the hopper of Cole to adjust the volume as desired (*id.*). The Examiner relied on Crawford in the rejection of claim 3 to teach a twine securing device for balers and determined that it would have been obvious to add the twine securing device of Crawford to the baler of Cole for securing and controlling a completed bale (Ans. 5). The Examiner has not provided any reason why the teachings of Patz or Crawford would have cured the deficiency in the combination of Cole and Sacht. As such, the Examiner has failed to set forth a prima facie case of obviousness of claims 2 and 3. Thus, we will not sustain the rejection of claim 2 as unpatentable over Cole, Sacht, and Patz or the rejection of claim 3 as unpatentable over Cole, Sacht, and Crawford.

CONCLUSIONS

We conclude the Appellants have shown that the Examiner erred in rejecting under 35 U.S.C. § 103(a) claims 1, 4, and 5 as unpatentable over Cole and Sacht, claim 2 as unpatentable over Cole, Sacht, and Patz, and claim 3 as unpatentable over Cole, Sacht, and Crawford.

Appeal No. 2008-2275
Appl. No. 10/207,807

DECISION

The decision of the Examiner to reject claims 1-5 is reversed.

REVERSED

vsh

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