

The opinion in support of the decision being entered today
is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARTIN C. GREEN

Appeal 2007-1562
Application 10/865,666
Technology Center 1700

Decided: August 15, 2007

Before CATHERINE Q. TIMM, JEFFREY T. SMITH, and
LINDA M. GAUDETTE, *Administrative Patent Judges*.

SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

Statement of the Case

This is an appeal under 35 U.S.C. § 134 from a final rejection of claims 11-14. We have jurisdiction under 35 U.S.C. § 6.

Appellant's invention relates to an apparatus for producing carbon black. According to Appellant, the apparatus of the present invention produces carbon black wherein the introduction of additional oxidant and/or hydrocarbon containing fluid streams into the effluent increases the structure

of the carbon black (Br. 8). Representative independent claim 11, as presented in the Brief, appears below:

11. A modular apparatus for producing carbon black comprising:

a combustion zone having an upstream and a downstream end and at least one port to allow the introduction of a fuel and an oxidant;

a zone of converging diameter having an upstream and a downstream end and converging from the upstream end towards the downstream end, the upstream end being connected to the downstream end of the combustion zone;

a transition zone having an upstream and a downstream end, the upstream end being connected to the downstream end of the zone of converging diameter, the transition including at least one port to allow the introduction of a feedstock;

an apparatus for introducing a fluid stream into the reactor in a direction axial to the flow of a process stream in the reactor, the apparatus having an upstream and a downstream end, the upstream end being connected to the downstream end of the transition zone;

a reaction zone having an upstream and a downstream end, the upstream end being connected to the downstream end of the transition zone or zones;

a quench zone having an upstream and a downstream end, the upstream end being connected to the downstream end of the reaction zone, the quench zone including at least one port to allow the introduction of a quenching fluid; and

apparatus for separating and collecting carbon black connected to the downstream end of the quench zone or zones.

The Examiner relies on the following reference in rejecting the appealed subject matter:

Henderson

US 4,664,901

May 12, 1987

Appeal 2007-1562
Application 10/865,666

Claims 11-13 stand rejected under 35 U.S.C. § 102(b) as anticipated by Henderson; claim 14 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Henderson.¹

The anticipation rejection

Claims 11-13 stand rejected under 35 U.S.C. § 102(b) as anticipated by Henderson.

Anticipation under § 102 requires that the identical invention that is claimed was previously known to others and thus is not new. *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991); *Titanium Metals Corp. of Am. v. Banner*, 778 F.2d 775, 780, 227 USPQ 773, 777- 78 (Fed. Cir. 1985); *Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick Co.*, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984).

The issue presented for review with respect to this rejection is: Does the Henderson reference have a disclosure that anticipates the claimed subject matter? The issue turns on whether Henderson describes an apparatus that comprises the introduction of a fluid stream connected to the downstream end of a transition zone. Regarding claims 12 and 13 the issue turns on whether Henderson describes an inlet and outlet for fluid streams arranged as specified by the claims. We answer these questions in the affirmative.

¹ We have considered the Appellant's position presented in the Brief filed September 25, 2006, and in the Reply Brief filed February 5, 2007. Appellant contends that the claims on appeal should not stand or fall together (Br. 5). We will consider the claims separately to the extent upon which they have been argued in the Briefs.

Appellant argues that Henderson does not anticipate the claimed invention because the claimed invention requires the introduction of the fluid stream from an apparatus connected to the downstream end of the transition zone while Figure 2 of the reference depicts the introduction of the oxygen containing gas at a location immediately downstream from a series of expansion and choke zones (Br. 12). Regarding claim 12, Appellant argues that the apparatus comprises a hollow vessel having at least one inlet for introducing a fluid stream into the interior of the vessel and the outlet to allow the fluid stream to exit the vessel. Appellant asserts that Henderson does not teach or suggest the hollow vessel having an inlet and outlet as required by claim 12 (Br. 14-15). Regarding claim 13, Appellant asserts that Henderson does not describe a hollow vessel having an annular outlet as required by claim 13.

Appellant's arguments are not persuasive. The Examiner found that Henderson describes a modular apparatus for producing carbon black that comprises all of the reaction zones specified by the claimed invention (Answer 3). The Examiner refers to the similarity of the Figure 1 and Figure 2 apparatuses. Henderson discloses that the reactors depicted in Figures 1 and 2 are the same except for the opposing views of the reactor (Henderson, col. 3, ll. 28-33). The reactor of Figure 1 includes element 30 which is a means for introducing feedstock into the reactor (Henderson, col. 4, ll. 31-40). Regarding claims 12 and 13, Henderson discloses the reactor comprises a means 66 for introduction of gases through annular wall 68 into vanes 64 that are positioned in the perimeter walls of the pyrolysis zone. The vanes function to direct the oxygen containing gas around the perimeter of the pyrolysis zone (Henderson, col. 7, ll. 47-68). Thus, the Examiner properly

Appeal 2007-1562
Application 10/865,666

concluded that Henderson describes an apparatus that comprises the introduction of a fluid stream connected to the downstream end of the transition zone and meets the limitations of the claimed invention (Answer 3).

The obviousness rejection.

Claim 14 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Henderson. We affirm.

Appellant asserts that Henderson does not teach or suggest a modular apparatus that comprises an inlet disposed substantially parallel to the outlet (Br. 16).

Claim 14 specifies the inlet port is disposed substantially parallel to the outlet. The Examiner recognizes that Henderson does not teach this arrangement. However, the Examiner contends that arranging the inlet to be parallel to the reactor would have been obvious to a person of ordinary skill in the art (Answer 3-4). In other words, it is the Examiner's position that a person of ordinary skill in the art would have sufficient abilities to arrange the shape of the fluid stream inlet.

Appellant did not refute the Examiner's position in the responsive Brief. We agree with the Examiner that a person of ordinary skill in the art would have sufficient skill to select the desired arrangement for the inlet into the vessel. *See In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969)(“Having established that this knowledge was in the art, the examiner could then properly rely, as put forth by the solicitor, on a conclusion of obviousness ‘from common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion

Appeal 2007-1562
Application 10/865,666

in a particular reference.”’); *In re Hoeschele*, 406 F.2d 1403, 1406-07, 160 USPQ 809, 811-812 (CCPA 1969) (“[I]t is proper to take into account not only specific teachings of the references but also the inferences which one skilled in the art would reasonably be expected to draw therefrom . . .”). As a final point with respect to the § 103 rejection, we note that Appellant bases no argument upon objective evidence of nonobviousness, such as unexpected results.

For the foregoing reasons and those presented in the Answer, we affirm the rejection.

ORDER

The Examiner's decision rejecting claims 11-14 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

sld

MARTHA ANN FINNEGAN, ESQ.
CABOT CORPORATION
157 CONCORD ROAD
BILLERICA, MA 01821-7001