



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/691,903	03/27/2007	Dean L. Kamen	7922-0031-1	6477
75960	7590	01/30/2013	EXAMINER	
MCCORMICK, PAULDING & HUBER I.L.P. 185 ASYLUM ST. CITY PLACE II HARTFORD, CT 06103			SCHARICH, MARC A	
			ART UNIT	PAPER NUMBER
			3611	
			NOTIFICATION DATE	DELIVERY MODE
			01/30/2013	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@ip-lawyers.com

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

*Ex parte* DEAN L. KAMEN, ROBERT R. AMBROGI, and  
RICHARD KURT HEINZMANN

---

Appeal 2010-012088  
Application 11/691,903  
Technology Center 3600

---

Before EDWARD A. BROWN, BRADFORD E. KILE, and  
BART A. GERSTENBLITH, *Administrative Patent Judges*.

GERSTENBLITH, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Dean L. Kamen, Robert R. Ambrogi, and Richard Kurt Heinzmann (“Appellants”) appeal under 35 U.S.C. § 134 from the Examiner’s decision rejecting claims 1-15. We have jurisdiction under 35 U.S.C. § 6(b).

*The Claimed Subject Matter*

Claim 1 is illustrative of the claimed subject matter and is reproduced below.

1. A transporter for transporting a load over a surface, the transporter comprising:
  - a support platform for supporting the load, the support platform characterized by a fore-aft axis and a lateral axis;
  - at least one ground-contacting element coupled to the support platform in such a manner that the orientation of the support platform with respect to the surface beneath and in contact with the at least one ground-contacting elements is capable of variation, the orientation referred to as an attitude;
  - a motorized drive arrangement for driving the at least one ground contacting elements;
  - a sensor module for generating a signal characterizing the attitude of the support platform;
  - and
  - a controller for commanding the motorized drive arrangement to apply a torque to one or more of the ground-contacting elements as a function of the attitude of the support platform based upon the signal generated by the sensor module.

*References*

The Examiner relies upon the following prior art references:

Sugasawa	US 4,749,210	June 7, 1988
Furukawa <sup>1</sup>	JP 4-201793	July 22, 1992

*Rejections*

The Examiner makes the following rejections:

- I. Claims 1, 2, 7-10, 13, and 14 are rejected under 35 U.S.C. § 102 as anticipated by Furukawa; and
- II. Claims 3-6, 11, 12, and 15 are rejected under 35 U.S.C. § 103(a) as unpatentable over Furukawa and Sugasawa.

SUMMARY OF DECISION

We REVERSE.

OPINION

The central issue with respect to the appeal is whether Furukawa discloses a sensor module for “generating a signal characterizing the attitude of the support platform” as required by the claims.<sup>2</sup> *See, e.g.*, App. Br. 10. The Examiner found that Furukawa discloses this element of the claims

---

<sup>1</sup> The Examiner based the rejections on an English translation of Furukawa submitted by Appellants with an Information Disclosure Statement (“IDS”) on March 4, 2004, during the prosecution of U.S. Patent Application No. 10/617,598 (“’598 Application”). The present application is a continuation of the ’598 Application. Appellants also appear to have submitted Furukawa and its English translation with an IDS filed on May 4, 2007, during prosecution of the present application. For ease of reference, we refer to the English translation as “Furukawa” and all citations herein refer to the translation.

<sup>2</sup> Independent method claim 10 and its dependent claims 11-15 similarly require, *inter alia*, “generating a signal characterizing an attitude of the support platform.”

because Furukawa's sensor module measures tilting angles  $\theta_x$  and  $\theta_y$ , which are based on "*horizontal and vertical directions related to a standard 'ground' or baseline surface, which is what the attitude of the transporter is 'referred' to, as recited in claim 1.*" Ans. 4, 9-10.

Appellants assert that Furukawa discloses that the detected angle and angle speed are always disclosed as being "**relative to the gravitational direction.**" App. Br. 11 (citing, *inter alia*, Furukawa at 3, ll. 12-13).

Appellants contend that because the

gravitational direction does not change with the surface beneath the transporter as it becomes inclined or declined[,] . . . Furukawa's sensor does not disclose the generation of a signal characterized by the orientation of the support platform with respect to the surface beneath and in contact with the at least one ground-contacting element, as recited in claim 1 of the present invention.

*Id.* For the same reasons, Appellants also contend that Furukawa does not anticipate claim 10 or its dependent claims. *See* App. Br. 12-13.

The claim language requires "at least one ground-contacting element coupled to the support platform in such a manner that the orientation of the support platform *with respect to the surface beneath* and in contact with *the at least one ground-contacting elements* is capable of variation." Claim 1 (emphases added). The claim also states that "the orientation [is] referred to as an attitude." *Id.* Thus, reading the definition of "attitude" in the context of the sensor module results in the claim requiring "a sensor module for generating a signal characterizing the [orientation of the support platform *with respect to the surface beneath* . . . the at least one ground-contacting elements]."

While the Examiner provided a thoughtful analysis, including responding to Appellants' arguments, the Examiner failed to identify any disclosure in Furukawa wherein a sensor module generates a signal characterizing the orientation of the support platform *with respect to the surface beneath*. Furukawa discloses "a detection means which detects the tilting angle and/or the tilting angle speed relative to the gravitational direction of the line which links the aforementioned rotation axis line and the center of gravity position." Furukawa at 3.<sup>3</sup> While Furukawa discloses that "in the case of the structure of the practical embodiment of the invention, the line which connects the rotation axis lines of the facing rollers is disposed so that it is parallel with the contact surface," *id.* at 7, the Examiner has not shown where Furukawa discloses that the signal characterizes the orientation of the support platform with respect to (*i.e.*, in relation to) the surface beneath.

Accordingly, we reverse Rejection I because the Examiner has not shown that Furukawa discloses each and every element of the claims.

The Examiner relied upon the same findings with respect to Furukawa discussed above in the context of Rejection II. Accordingly, for the reasons explained above, we also reverse Rejection II.

---

<sup>3</sup> Furukawa also discloses a "detection means which detects the tilting angle and/or the tilting angle speed relative to the gravitational position of a line which links the aforementioned center point and the center of gravity position." Furukawa at 3.

Appeal 2010-012088  
Application 11/691,903

DECISION

We reverse the Examiner's decision rejecting claims 1-15.

REVERSED

Klh