

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* TOMAS BRODSKY and YUN-TING LIN

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Appeal 2007-3658  
Application 10/969,720  
Technology Center 2600

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Decided: March 27, 2008

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Before JOSEPH F. RUGGIERO, ANITA PELLMAN GROSS,  
and KEVIN F. TURNER, *Administrative Patent Judges*.

TURNER, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from the Examiner's rejection of claims 1-36. As indicated at page 3 of the Answer, the Examiner has withdrawn the only stated rejection of claim 36. Accordingly, only the rejections of claims 1-35 are before us on appeal. We have jurisdiction under 35 U.S.C. § 6(b). We reverse.

STATEMENT OF CASE

Appellants disclose a system and methods for improving video surveillance systems that use blocking zones so that false alarms are

reduced. (Spec. [0001]). The system allows for tracking of objects through specified zones, where objects are not specified as reportable objects until they leave a zone. (Spec. [0009]).

Independent claim 25, which is deemed to be illustrative of the claimed invention, reads as follows:

25. A method comprising:

obtaining images from a camera, each image including one or more defined blocking zones,

detecting objects within the images regardless of the defined blocking zones,

defining a classification for each of the objects, the classification including reportable and non-reportable, based on whether the object is within the one or more blocking zones.

The Examiner relies on the following prior art references to show unpatentability:

Broemmelsiek	US 2002/0008758 A1	Jan. 24, 2002
Monroe	US 2003/0025599 A1	Feb. 6, 2003
Randall	US 6,727,938 B1	Apr. 27, 2004 (filed Apr. 14, 1997)
Brill	US 6,816,184 B1	Nov. 9, 2004 (filed Apr. 15, 1999)
Han	US 2005/0105765 A1	May 19, 2005 (filed Aug. 12, 2004)

The Examiner rejected, under 35 U.S.C. § 102(b):

claims 25-28 and 30-35 as anticipated by Broemmelsiek,  
under 35 U.S.C. § 102(e):

claims 1, 4, 6, 7, 10, 18-21, 23, and 25-28 as anticipated by Randall, under 35 U.S.C. § 103(a):

claims 2, 8, 11-15, 17 and 22 as unpatentable over Randall and Han,  
claim 3 as unpatentable over Randall and Monroe,  
claim 5 as unpatentable over Randall and Brill,  
claims 9 and 24 as unpatentable over Randall,  
claim 16 as unpatentable over Randall, Han, Brill and Monroe,  
claim 29 as unpatentable over Randall and Broemmelsiek, and  
claim 29 as unpatentable over Broemmelsiek and Han.

Additionally, in the Final Office Action, claim 29 was rejected under 35 U.S.C. § 103(a) as unpatentable over Randall and Han, where this latter rejection was not repeated in the Answer.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the Brief, the Reply Brief, and the Answer for their respective details. Only those arguments actually made by Appellants have been considered in this decision. Arguments that Appellants did not make in the Brief have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

## ISSUE

Have Appellants shown that the Examiner erred in establishing that the cited prior art references teach or suggest all of the disputed elements of claims 1-35?

## FINDINGS OF FACT

1. The application details a tracking system that identifies and tracks objects within a field of view. An object that first appears within a blocking zone is not considered to be a reportable object until the object leaves the zone. Objects that remain within the blocking zone are not indicated as being reportable. All objects may be tracked, even if they are not considered to be reportable. (Spec. [0009], [0016]-[0023] and [0032]; Fig. 3, elements 310-370).

2. Independent claim 1 recites, in part:

“detecting an object within the image” and “identifying the object as being reportable if the object is located beyond the defined blocking zone,”

independent claim 11 recites, in part:

“an object recognizer that is configured to recognize an object in a sequence of images” and an object tracker configured to “identify the object as being reportable if the object departs the blocking zone,”

independent claim 18 recites, in part:

“identify the object as being reportable if the object in the subsequent image is located beyond the defined blocking zone,”

independent claim 25 recites, in part:

“detecting objects within the images regardless of the defined blocking zones” and “defining a classification for each of the objects, the classification including reportable and non-reportable,” and

independent claim 31 recites, in part:

“an object recognizer that is configured to recognize a[n]… object in a sequence of images” and an object tracker configured to “classify the target object as being reportable or non-reportable.”

3. Randall discloses a video security system with a motion detector. Video images are produced by the camera, where the video images are simultaneously sent to the monitor station and the motion detector. The motion detector compares a current image to a prior image and asserts an alert signal whenever the current image differs substantially from the prior image, as measured by the number of pixels having a different value exceeding a threshold value. The motion detector contains a mask feature, where areas of the field of view can be blocked from the motion detection process. (Abstract, col. 4, ll. 37-65; Fig. 1A, elements 101, 110, 130, 135 and 138).

4. Broemmelsiek discloses a motion video object tracking system that uses user-defined exclusion zones within a camera’s field of view to ignore the origination of object track data. The zones disclosed include black-out zones, where no tracking occurs, exclusion zones, where tracking occurs of objects that enter the zone, but tracking does not originate, and privacy zones, where regions are not viewable, but tracking of objects within the zone are maintained. (Abstract; [0020] and [0025]; Fig. 5, elements 410, 412, 414 and 416).

5. Han discloses a video surveillance system with object detection and probability scoring. The system has an alert reasoning module to generate alarm codes, performs the continuous tracking of objects, and

detects objects through the correlated movement of a group of pixels in the image. (Abstract; [0030], [0031] and [0053]).

6. Monroe discloses a system that allows for the identification of the occurrence of an event. The system allows for adaptive masking where only motion outside of normal activity would trigger a motion detection event. (Abstract; [0037]).

7. Brill discloses a system for mapping a location from a video image to a map. The system allows for objects to be blocked from consideration in the mapping process. (Abstract; col. 9, ll. 30-45).

#### PRINCIPLES OF LAW

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros., Inc. v. Union Oil Co. of Calif.*, 814 F.2d 628, 631 (Fed. Cir. 1987). The Examiner bears the initial burden of presenting a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). If that burden is met, then the burden shifts to the Appellants to overcome the *prima facie* case with argument and/or evidence. *See Id.* The analysis need not seek out precise teachings directed to the specific subject matter of the claim but can take into account the inferences and the creative steps that a person of ordinary skill in the art would employ. *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007).

During examination, the claims must be interpreted as broadly as their terms reasonably allow. *In re Am. Acad. of Sci. Tech Center*, 367 F.3d 1359, 1369 (Fed. Cir. 2004). When the specification states the meaning that a term in the claim is intended to have, the claim is examined using that meaning,

in order to achieve a complete exploration of the applicant's invention and its relation to the prior art. *In re Zletz*, 893 F.2d 319, 321-22 (Fed. Cir. 1989).

## ANALYSIS

### Rejections of Claims 1, 4, 6, 7, 10, 18-21, 23, 25-28, and 30-35

Independent claims 1, 18, 25, and 31 were indicated as being anticipated by one or both of Randall and Broemmelsiek. Appellants argue that Randall and Broemmelsiek fail to disclose the tracking of objects nor classifying objects as reportable. (App. Br. 7-15). Independent claims 1, 18, 25, and 31 all require that objects within the image are detected and objects are identified as being reportable or non-reportable. (FF 2). While Randall detects motion, (FF 3), it does not disclose that objects within the images are detected nor disclose that objects are identified as being reportable or some equivalent thereof. Broemmelsiek clearly discloses that objects are tracked according to what zone they originate in, (FF 4), but does not disclose that objects can be designated as anything other than trackable or non-trackable. As such, we find that neither Randall nor Broemmelsiek discloses all of the elements of the independent claims 1, 18, 25 and 31, nor of dependent claims 4, 6, 7, 10, 19-21, 23, 26-28, 30, and 32-35.

The Examiner finds that detection of an object can occur if “an object of interest appears in the range.” (Ans. 13). However, we agree with Appellants that such a definition of detection renders the limitation “detecting an object within an image,” as found in the claims, to be meaningless because the object within that image would already be detected, under the Examiner’s definition. The Examiner also finds that Randall

discloses object detection because motion within a frame less than the threshold allows for object too small to be of interest to be neglected. (Ans. 14). However, the neglect of small motions is not the same as the detection of objects, as required by the instant claims.

Additionally, the Examiner finds that Randall discloses identifying objects as being non-reportable if the object is initially detected in the defined blocking zone. (Ans. 14). However, as argued by Appellants, (Reply Br. 5), objects within Randall's blocking zone do not appear in the processed image, and thus are not identified as any type of object. As discussed above, we agree with the Examiner that Broemmelsiek does disclose zones within an image where objects are tracked, but we do not agree that Broemmelsiek teaches the classification of objects as reportable or non-reportable. The Examiner finds that indicating that an object is trackable or not-trackable "meets the criteria for an object to be considered reportable." (Ans. 18). Since the Specification makes clear that objects can be tracked but not indicated as being reportable, (FF 1), the terms, as used in the Specification and the claims, are not synonymous as indicated by the Examiner.

#### Rejection of Claims 9 and 24

We find no suggestion to modify Randall to overcome the shortcomings of Randall explained *supra* with respect to the claims from which they depend. Therefore, we find the rejection of claims 9 and 24 to be similarly improper as those rejections of claims 1, 4, 6, 7, 10, 18-21, 23, 25-28, and 30-35.

#### Rejection of Claims 2, 8, 11-15, 17 and 22

Independent claim 11 was rejected as being obvious over Randall and Han. Independent claim 11 recites an object recognizer that recognizes an object in a sequence of images and an object tracker that identifies objects as being reportable or non-reportable. (FF 2). As discussed above, Randall fails to teach or suggest the functionalities of those elements of claim 11. Han fails to cure the deficiencies of Randall, (FF 5), and we find the rejection of claim 11, as well as claims 2, 8, 12-15, 17 and 22, to be similarly improper as those rejections of claims 1, 4, 6, 7, 10, 18-21, 23, 25-28, and 30-35.

#### Rejections of claim 29

Claim 29 was rejected over Randall and Brommelsiek and also over Brommelsiek and Han. As discussed above, both Randall and Brommelsiek fail to teach or suggest the classification of objects as reportable or non-reportable, as recited in independent claim 25. (FF 2). As also discussed above, Han fails to cure this deficiency, as it teaches or suggests nothing about objects being reportable or non-reportable. Thus, we find the rejections of claim 29 to be similarly improper as those rejections of claims 1, 4, 6, 7, 10, 18-21, 23, 25-28, and 30-35.

#### Rejections of claim 3, 5, and 16

Claims 3, 5, and 16 were rejected over combinations of Randall with Han, Monroe, and Brill. Further, our review of cited references Monroe and Brill does not show that any of these references cure the deficiencies of Randall and Han discussed above. As such, we find the rejections of claims 3, 5, and 16 to be improper as well.

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#### CONCLUSION OF LAW

We find that the Examiner erred in rejecting claims 1, 4, 6, 7, 10, 18-21, 23, 25-28 and 30-35 under U.S.C. § 102 and claims 2, 3, 5, 8, 9, 11-17, 22, 24 and 29 under U.S.C. § 103 based on the cited prior art.

#### DECISION

The Examiner's rejections of claims 1-35 before us on appeal are reversed.

REVERSED

gvw

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