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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/258,698	10/27/2008	JAMES M. LORENZO	PO9148/MD08-37	9534
157	7590	01/28/2019	EXAMINER	
Covestro LLC 1 Covestro Circle PITTSBURGH, PA 15205			ELDRED, JOHN W	
			ART UNIT	PAPER NUMBER
			3641	
			NOTIFICATION DATE	DELIVERY MODE
			01/28/2019	ELECTRONIC

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

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JAMES M. LORENZO, ROBERT A. PYLES, and
RAYMOND L. GOODSON

Appeal 2018-005879
Application 12/258,698
Technology Center 3600

Before MICHAEL L. HOELTER, LYNNE H. BROWNE, and
MITCHELL G. WEATHERLY, *Administrative Patent Judges*.

BROWNE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from the rejection of claims 1–3, 5–11, 13–21, and 40–43. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

CLAIMED SUBJECT MATTER

The claims are directed to a method of mounting a blast-resistant barrier such as a barrier comprising at least one high energy impact

absorbing polycarbonate panel. Spec. 1. Claims 1 and 11 are independent.

Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method of mounting a blast-resistant barrier having two parallel sides comprising:
 - attaching the blast-resistant barrier to a semi-rigid metallic frame along two parallel sides of the barrier,
 - wherein the blast-resistant barrier is from about 0.375 inches to about 1.5 inches in thickness and includes at least one polycarbonate sheet,
 - wherein the semi-rigid metallic frame is made of one selected from the group consisting of carbon steel, stainless steel and aluminum; and
 - placing the blast-resistant barrier at a location between a surface of a target to be protected and a potential blast location, wherein the blast-resistant barrier flexes in a biaxial mode, wherein the blast-resistant barrier is capable of flexing to a pressure load of 6.5 psi and an impulse load of 61 psi-msec, and returning to its original position after flexing.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

DeLong	US 5,142,997	Sept. 1, 1992
Snedeker	US 5,771,489	June 30, 1998
Miller	US 6,622,607 B1	Sept. 23, 2003
Martin	US 7,493,844 B2	Feb. 24, 2009

REJECTIONS

- I. Claims 1–3, 7–11, 13–18, 21, and 40–43 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Miller, Martin, and Snedeker.

- II. Claims 5, 6, 19, 20, 25, 26, 36, and 37 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Miller, Martin, Snedeker, and DeLong.

DISCUSSION

I. Rejection Based on Miller, Martin, and Snedeker

The Examiner finds that Miller, Martin, and Snedeker disclose or suggest all of the limitations of claims 1–3, 7–11, 13–18, 21, and 40–43. Final Act. 2–4. For example, with respect to the limitation requiring “the blast-resistant barrier [to be] capable of flexing to a pressure load of 6.5 psi and an impulse load of 61 psi-msec, and returning to its original position after flexing,” the Examiner reasons:

In regard to the particular claimed pressure load and impulse load parameters it is considered to have been obvious to one of ordinary skill in the art to build the barrier with a desired blast resistant barrier level, especially since the materials are well known as shown by the prior art, so mere selection of particular known materials and material parameters would enable one to meet the claimed limitations. It does not appear that there are any unexpected results if the proper parameters of the well known materials, in the known prior art structure, are selected.”

Id. at 3.

Appellants contend that “none of Miller, Martin, Snedeker and DeLong¹ discloses a blast-resistant barrier capable of flexing to a pressure load of 6.5 psi and an impulse load of 61 psi-msec, and returning to its original position after flexing.” Appeal Br. 6. Specifically, Appellants argue that “Miller is not designed to flex to a pressure load of 6.5 psi or an impulse load of 61 psi-msec . . . This is evident from the U-shaped frame

¹ We note that DeLong is not relied upon to reject claims 1–3, 7–11, 13–18, 21, and 40–43. Final Act. 2.

and rollers of Miller, whose design allows it to only hold the pane in place before encountering a pressure or impulse load.” *Id.* Appellants explain that “[a]fter the application of any significant pressure, such as a pressure load of 6.5 psi or an impulse load of 61 psi-msec, Miller’s bullet-resistant barrier will either move and not return to its original position, or will disintegrate in place.” *Id.*

Turning to Martin, Appellants contend that “[t]he vehicle security partition of Martin is simply not designed to withstand the stresses of the blast barrier of the present invention, and the partition frame is not designed to flex at all.” Appeal Br. 6. Appellants argue that “[a]ny blast approaching a pressure load of 6.5 psi or 61 psi-msec inside a law enforcement cruiser would likely destroy the partition frame, and possibly the cruiser as well.” *Id.* Regarding Snedeker, Appellants contend that this reference “does not disclose any frame at all to secure a barrier in place in case of a blast. Rather, the body armor is designed to be flexible to accommodate the contours and movements of the wearer’s body.” *Id.* at 7 (citation omitted).

Responding to these arguments, the Examiner asserts that:

one of ordinary skill in the art would be led to modify the parameters of the barrier, e.g. size of the barrier, width of the frame sides, the particular types of steel or aluminum, etc., in order to provide a barrier that would provide the desired strength and protection. In particular, to provide a barrier that would flex under a pressure load of 6.5 psi and an impulse load of 61 psi-msec and return to its original position, i.e. withstand the intended blast without permanent damage.

Ans. 5. The Examiner, however, does not explain why one skilled in the art would choose to design a barrier to withstand these particular pressure load and impulse load values. For example, the Examiner does not show that the claimed pressure load and impulse load specified are standard for blast-

resistant barriers or that any of the barriers of Miller, Martin, or Snedeker flex and then return to their original position after encountering such a load. Thus, the Examiner's reasoning lacks rational underpinning. For this reason, we do not sustain the Examiner's decision rejecting claims 1–3, 7–11, 13–18, 21, and 40–43.

II. Rejection base on Miller, Martin, Snedeker, and DeLong

The Examiner's rejection of claims 5, 6, 19, 20, 25, 26, 36, and 37 relies upon the same unsupported reasoning as Rejection I discussed above. *See* Final Act. 4–5. Accordingly, we do not sustain the Examiner decision rejecting 5, 6, 19, 20, 25, 26, 36, and 37 for the same reason we do not sustain Rejection I.

DECISION

The Examiner's rejection of claims 1–3, 5–11, 13–21, and 40–43 is REVERSED.

REVERSED