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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* ERIC J. ZUERCHER

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Appeal 2019-002482  
Application 14/272,849  
Technology Center 3700

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Before JOHN C. KERINS, STEFAN STAICOVICI, and  
WILLIAM A. CAPP, *Administrative Patent Judges*.

KERINS, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant appeals from the Examiner's decision to reject claims 1–20.<sup>1</sup> We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> The term “Appellant” is used herein to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as AGM Container Controls, Inc. Appeal Br. 1.

### THE CLAIMED SUBJECT MATTER

Appellant's invention relates to a breather valve. Claim 1 is illustrative, and is reproduced below:

1. A breather valve, comprising:

a valve housing enclosing a hollow interior containing a stationary member with a first magnet coupled proximally to a first end of said housing and a pressure-movable poppet disposed in sealing arrangement proximally to a second end of said housing and including a second magnet; wherein said housing and said pressure-movable poppet are configured to be cylindrical, said hollow interior defines a gas or air flow channel beginning at said first end of the valve housing and terminating at said second end of the valve housing, and said poppet is disposed atop said hollow interior portion such that a portion of the poppet extends into said flow channel towards the first end of said valve housing and said portion is at least partially exterior to said flow channel during an outflow of air or gas; wherein

said magnets are substantially centrally disposed in relation to said stationary member and pressure-moveable poppet and are configured such that said breather valve stays closed until an air pressure overcomes an attraction force between said magnets, thereby opening said valve; and wherein said pressure-moveable poppet is conically shaped, with its widest end having a sealing ring disposed thereon, its closed narrow end having a plurality of ribs extending radially therefrom and in contact with said hollow interior, and its closed narrow end extending around and thereby enveloping said second magnet.

### THE REJECTIONS

The Examiner rejects:

- (i) claims 1–7, 10–17, and 20 under 35 U.S.C. § 103 as being unpatentable over Eross (US 4,210,174, issued July 1, 1980) in view of

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Johnson (US 2006/0202150 A1, published Sept. 14, 2006) and Dana (US 2009/0193908 A1, published Aug. 6, 2009); and

(ii) claims 8, 9, 18, and 19 under 35 U.S.C. § 103 as being unpatentable over Eross in view of Johnson, Dana, and Götzenberger (US 4,131,128, issued Dec. 26, 1978).

#### ANALYSIS

*Claims 1–7, 10–17, and 20--§ 103--Eross/Johnson/Dana*

Appellant argues claims 1–7, 10–17, and 20 as a group, presenting no separate arguments for any individual claim. *See* Br. 5–7. We take claim 1 as representative of the group, and claims 2–7, 10–17, and 20 stand or fall with claim 1.

The Examiner finds that Eross discloses the subject matter of claim 1, with the exceptions of “particular details of the shape of the valve member, the use of a sealing ring and how the magnets are coupled.” Final Act. 3. The Examiner relies on Johnson as disclosing a conically shaped valve member 22 having a sealing ring 33 at one end and a lower guide assembly 50 comprising a plurality of legs 52, 54 coupled to the other end of the valve member. *Id.* The Examiner relies on Dana as disclosing encasing magnets 29, 34 used in a valve to protect the magnets from corrosion. *Id.* at 4.

The Examiner concludes that it would have been obvious to a person of ordinary skill in the art to modify the Eross device to include a conically shaped valve member having a sealing ring at one end and a plurality of guiding legs at the other end, to provide an effective seal, and to improve the performance of the valve by obtaining uniform wear at the valve seat region. *Id.* The Examiner further concludes that it would have been obvious to the skilled artisan to encase the magnetic materials in Eross so as to protect the magnets from possible corrosion. *Id.*

Appellant argues that Eross only discloses one magnet rod 17, which is disclosed as being attracted to a magnetically attracted material of iron, such as iron rod 21, whereas claim 1 requires first and second magnets. Br. 5. The single magnet, according to Appellant, is separate from the poppet, and therefore the poppet cannot envelop the magnet. *Id.*

The Examiner retorts that, under a broadest reasonable interpretation of claim 1, the “magnetically attracted material” in Eross, i.e., iron, a known ferromagnetic material, used in cooperation with a magnet to open and close the Eross valve, may reasonably be regarded as one of the first and second magnets claimed. Ans. 12–13. Because Appellant’s valve works in part on the principle of opening and closing a poppet in a valve by employing attractive magnetic forces between two elements, we agree that the Examiner’s reliance on an iron material that is magnetically attracted to a magnet is appropriate within the broadest reasonable interpretation of claim 1. Accordingly, Eross is correctly regarded as providing first and second magnets.

Appellant’s further argument to the effect that the magnet is separate from the poppet, is premised on the iron rod in Eross not being construed to be a magnet. Because we above construe the claim to the contrary, the argument is not indicative of Examiner error.

Appellant additionally points out that the poppet of Eross is opened with air pressure, and is not designed or disclosed to rotate upon disengagement and reengagement of the poppet with the seat, and further that the poppet sits atop and not within the flow channel. Br. 5–6. Thus, according to Appellant, there is no apparent reason why one of ordinary skill would add the guide legs disclosed in Johnson to the Eross poppet to improve wear on the Eross valve. *Id.* at 6. This latter statement more or less

provides the answer as to why the skilled artisan would modify the Eross valve to include guide legs—so that wear at the seat area would be improved, as intimated by the Examiner. Additionally, although Appellant’s Specification lacks any discussion as to the function provided by the claimed plurality of ribs, we believe that a person skilled in the art would understand that both Appellant’s ribs and Johnson’s legs would provide a degree of stability in the axial direction as the valve or poppet lifts off of its seat, providing an additional reason why the proposed modification of Eross by Johnson would have been obvious.

Appellant also argues that the disclosure in Dana of encased magnets “does not add any apparent utility to Eross’ one-magnet valve,” in that the magnet and the iron magnetically attractable material are separated such that they will not strike each other. Br. 6. Appellant additionally posits that the performance of the Eross valve may be hindered by adding a barrier between the materials, this potentially weakening the magnetic attraction force therebetween. *Id.*

The Examiner does not propose encasing the magnetic materials of Eross to protect against damage from striking one another, but rather, to provide corrosion protection for the materials. Ans. 18. We also agree that the Examiner has the better position as to handling any change in performance due to magnetic attraction forces being affected by encasing the magnetic materials. The Examiner notes, in this regard, that a person of ordinary skill in the art would know how to modify the device to take into account any such change, including, as disclosed in Eross and Dana, adjusting the distance between the two materials to adjust the magnetic attractive force. *Id.* at 18–19.

Appellant's argument that "modifying Eross' valve to include two magnets may very well cause the valve to be difficult or impossible to open using positive airway pressure from the lungs," is not commensurate with the Examiner's rejection. Br. 6. The Examiner does not propose to modify Eross to provide a magnet in place of the magnetically attractive iron rod, but rather construes claim 1, reasonably, such that the magnetically attractive rod and the magnet in Eross are responsive to the claimed first and second magnets.

Appellant's discussion of alleged unique and unexpected flow characteristics attributable to the claimed valve structure are unavailing in the absence of actual evidence of unexpected results compared to the closest prior art. *See* Br. 6.

In view of the above, we are not apprised of Examiner error in rejecting claim 1 as being unpatentable over Eross, Johnson, and Dana. The rejection of claim 1 is sustained, and claims 2–7, 10–17, and 20 fall with claim 1.

*Claims 8, 9, 18, and 19--§ 103--Eross/Johnson/Dana/Götzenberger*

Appellant does not advance any separate arguments directed to the rejection of claims 8 and 9, which depend from claim 1, nor to the rejection of claims 18, and 19, which depend from claim 11. Accordingly, the rejection is sustained for the reasons noted above in the rejection of claims 1 and 11.

#### DECISION

The Examiner's rejections of claims 1–20 under 35 U.S.C. § 103 is affirmed.

CONCLUSION

In summary:

<b>Claims Rejected</b>	<b>Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1-7, 10-17, 20	§ 103 Eross, Johnson, Dana	1-7, 10-17, 20	
8, 9, 18, 19	§ 103 Eross, Johnson, Dana, Götzenberger	8, 9, 18, 19	
<b>Overall Outcome</b>		1-20	

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