

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JANET M. SUTERA and KENNETH A. LYMAN

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Appeal No. 2006-1813  
Application No. 10/307,576

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ON BRIEF

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Before OWENS, CRAWFORD and FETTING, *Administrative Patent Judges*.  
OWENS, *Administrative Patent Judge*.

*DECISION ON APPEAL*

This appeal is from a rejection of claims 4, 5, 7, 13, 15 and 19, which are all of the pending claims.

*THE INVENTION*

The appellants claim a valve assembly for preventing gasoline loss at a conventional gasoline dispensing pump.

Appeal No. 2006-1813  
Application No. 10/307,576

Claim 4 is illustrative:

4. A fuel saving valve assembly for preventing excess gas leakage at conventional gasoline dispensing pumps comprising:

an outer tubing having a distal end and a proximal end and a uniform inner diameter;

a spring having a distal end and a proximal end disposed within said outer tubing;

a rigid crossbar, for holding said distal end of said spring, operatively connected to said spring and operatively connected to said distal end of said outer tubing; and

a substantially spherical, metallic valve ball having a diameter greater than said predetermined inner diameter, said metallic valve ball being connected to said proximal end of said spring, for forming a tight seal between said ball and said proximal end of said outer tubing, allowing the starting and stopping of gasoline flow.

*THE REFERENCE*

Taggert 2,996,077 Aug. 15, 1961

*THE REJECTION*

Claims 4, 5, 7, 13, 15 and 19 stand rejected under 35 U.S.C. § 103 as being unpatentable over Taggert.

*OPINION*

We reverse the aforementioned rejection. We need to address only the independent claims, i.e., claims 4 and 19. Both of those claims require a substantially spherical, metallic valve ball that is capable of starting and stopping gasoline flow.

Taggert discloses a check valve for use in pumping water, which may have considerable foreign matter entrained therein, from a sump in a cellar of a residence (col. 1, lines 29-31 and 44-45). The check valve includes a generally spherical ball member (19) that normally is held in engagement with a lip (28) at the end of a body member (18) by a coil spring (25) attached at one end to a wire (26) hook at the ball member and at the other end to a bar (24) fastened across the center of the body member (col. 1, line 70 - col. 2, line 5; col. 2, lines 65-66; figure 2). Water pressure stretches the spring and thereby forces the ball member away from the lip so as to form a spray that may be used for watering a lawn or for like desirable purposes (col. 2, lines 14-19). The ball member is made of a soft, resilient, rubber-like material which forms a very good seal and is non-corrosive so that any chemical material in the sump does not damage the valve (col. 2, lines 33-43).

The examiner argues that "Taggert discloses a fluid saving valve" (answer, page 2). That is incorrect. Taggert discloses a valve for spraying cellar sump water onto a lawn (col. 2, lines 16-19).

The examiner argues that "all recitations pertaining to 'gasoline' are being regarded as intended use limitations, the prior art only having to be capable of performing such recitations" (answer, page 3). The examiner is correct regarding the capability requirement. However, the examiner must establish that Taggart's ball member meets that capability requirement by being compatible with gasoline in the conventional gasoline dispensing pump environment recited in the claims, or that Taggart would have fairly suggested a ball valve material having such compatibility to one of ordinary skill in the art. The examiner argues that "[i]n using the device of Taggart with gasoline, one of ordinary skill in the art, at the time the invention was made, would have replaced the ball in the device with a metal ball since interaction of gasoline with [a] certain class of rubber-like material is well-known as reflected in the entry in the Cole Parmer catalog, referenced by the applicant on page 7 in the response filed 04/29/04 and submitted herewith" (answer, page 3). That catalog discloses that natural rubber interacts with unleaded gasoline at a "D-severe" compatibility level, i.e., "not recommended for ANY use."<sup>1</sup> The examiner,

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<sup>1</sup> The catalog does not indicate that all rubbers are incompatible with gasoline.

Appeal No. 2006-1813  
Application No. 10/307,576

however, has not established given Taggart's disclosed use of the check valve for pumping water out of a cellar sump (col. 1, lines 44-45), one of ordinary skill in the art would have been led by Taggart to make the check valve compatible with gasoline.

The examiner argues that "the device of Taggart would perform equally well with a metal ball" (answer, page 3). Taggart discloses that the ball's soft, resilient rubber-like material forms a very good seal (col. 2, lines 33-35). The examiner has not established that a metal ball, which is hard and non-resilient, would form such a seal.

The examiner argues that "[t]he specific choice of a 'metal' ball recited in the claims neither provides any new and/or unexpected result nor solves any stated problem compared to the disclosure of Taggart" (answer, page 3). Before a patent applicant has any burden of coming forward with evidence of nonobviousness such as unexpected results, the examiner must establish a *prima facie* case of obviousness. See *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); *In re Rinehart*, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976). The examiner has not established that Taggart would have fairly suggested, to one of ordinary skill in the art, making the check valve suitable for use in a conventional gasoline dispensing pump

environment. As for the examiner's argument that the appellants' metal does not solve any problem compared to Taggart, the evidence of record indicates that the appellants' metal, but not Taggart's soft, resilient rubber-like material, solves the problem of incompatibility with gasoline.

The examiner argues that the appellants' disclosures that their outer tubing (22) provides seating for the metal ball and can comprise metal, plastic, rubber or other suitable material (specification, page 1, lines 3-4; figure 2), and that the crossbar (28), which preferably is made of metal or other suitable material (specification, page 7, lines 15-16), can have metal or plastic characteristics (claim 15), indicate that the choice of metal for the appellants' ball is not critical (answer, page 5). That argument is not persuasive because the same disclosures could be used to support an argument that the lack of a disclosure that the ball can be anything but metal indicates that, unlike the outer tubing and the crossbar, the ball must be metal.

The examiner argues that Taggart's disclosures that "[t]here are many situations in which it is desirable to use inexpensive and rugged check valves to prevent the return of fluid in a line" (col. 1, lines 11-12), and that the check valve "can be formed of

non-corrosive material" (col. 1, lines 26-27), would have fairly suggested metal as the ball material to one of ordinary skill in the art because metals are rugged and inexpensive, and some are non-corrosive (answer, page 4). The examiner also argues that metals were known to be used in household plumbing (answer, page 5). Taggart, however, also discloses that the soft, resilient, rubber-like material forms a very good seal (col. 2, lines 33-34). The examiner has not established that one of ordinary skill in the art would have considered a metal ball to form the very good seal desired by Taggart. Hence, the examiner has not established that Taggart, taken as a whole, would have fairly suggested using metal as the rugged, inexpensive, non-corrosive material.

The examiner argues that "[o]ne of ordinary skill in the art at the time the invention was made would choose a material that is suitable to the nature of the fluid flowing through the device" (answer, page 4). Taggart's fluid is cellar sump water (col. 1, lines 44-45), and the examiner has not established that Taggart's disclosure of that fluid would have fairly suggested, to one of ordinary skill in the art, making the check valve compatible with gasoline.

Appeal No. 2006-1813  
Application No. 10/307,576

For the above reasons we conclude that the examiner has not carried the burden of establishing a prima facie case of obviousness of the appellants' claimed invention.

*DECISION*

The rejection of claims 4, 5, 7, 13, 15 and 19 under 35 U.S.C. § 103 over Taggart is reversed.

*REVERSED*

TERRY J. OWENS )  
Administrative Patent Judge )  
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 ) BOARD OF PATENT  
 ) APPEALS  
 ) AND  
MURRIEL E. CRAWFORD ) INTERFERENCES  
Administrative Patent Judge )  
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ANTON W. FETTING )  
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Appeal No. 2006-1813  
Application No. 10/307,576

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