

COMMISSIONER'S DECISION

Obviousness - Float Valve Assembly

Replacing metallic valve components by an integrally formed synthetic plastic material is not patentable. However other features involving a combination of an intermediate float arm with a set screw float adjustment was considered patentable.

Final Action: Modified. Two claims rejected and two claims found acceptable.

This decision deals with a request for review by the Commissioner of Patents of the Examiner's Final Action dated March 10, 1976, on application 200,608 (Class 137-29). The application was filed on May 23, 1974 in the name of Richard J. Yeagle, and is entitled "Humidifier Valve Assemblies." The Patent Appeal Board conducted a Hearing on November 8, 1977, at which Mr. John Burke represented the applicant.

This application relates to a water intake valve assembly of the type used in humidifiers. It consists of a valve element support member integrally formed of synthetic plastic material which pivots about a transverse axis and is adopted to receive a resilient valve element. Figures 1 and 3 of the application are shown here.

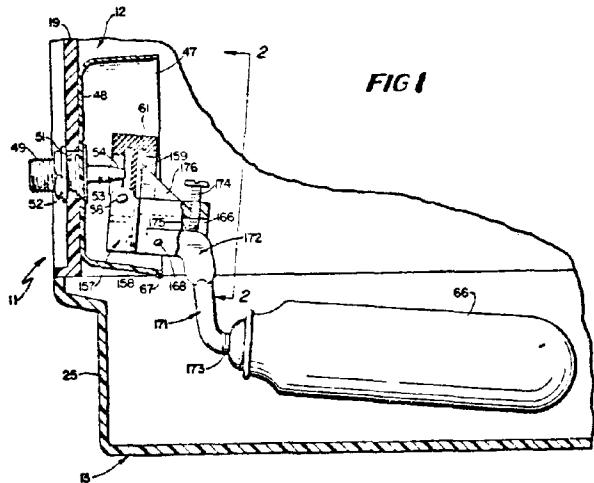


FIG 1

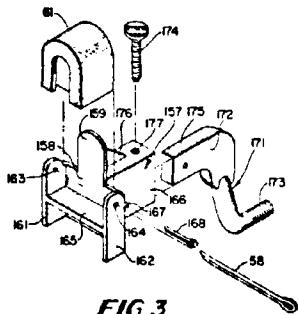
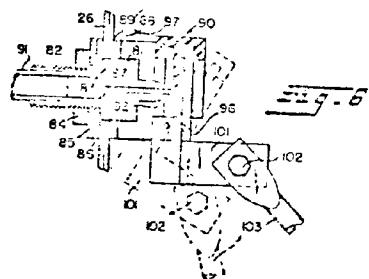
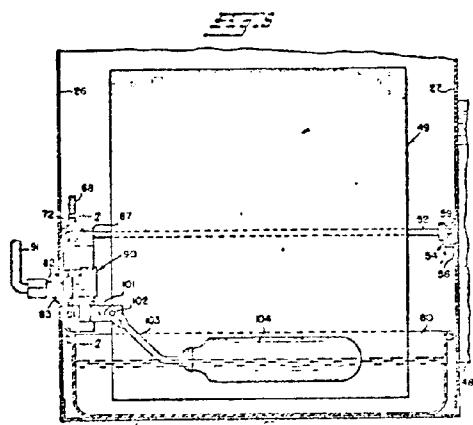


FIG 3

In the Final Action the examiner refused the application for failing to define patentable subject matter over the following citations:

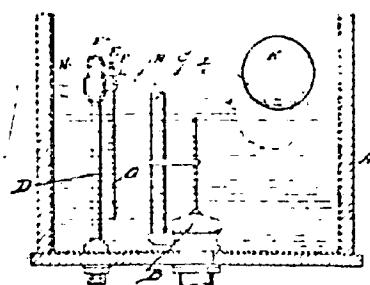
Canadian Patent	897,073	April 4, 1972	Powers
	105,006	April 30, 1907	Gray et al
	238,497	March 11, 1924	Sherwood

The Powers patent, which is owned by the applicant, is for a humidifier float controlled valve assembly. Some of the component elements are the same as those used in the application. Figures 5 and 6 of Powers are shown below:

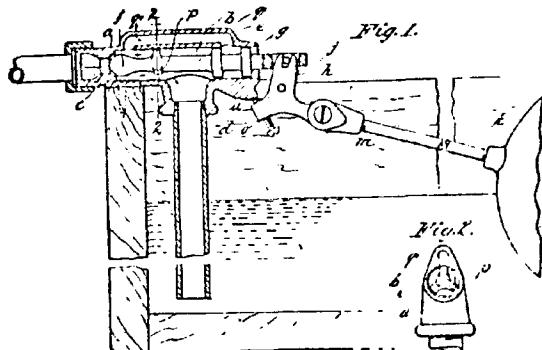


Sherwood describes a water inlet valve for a toilet tank in which the maximum valve opening is regulated by a set screw arrangement on the float arm.

Figure 1 of Sherwood is reproduced below:



Gray relates to a water inlet valve arrangement having an adjustable float level. Figure 1 of Gray is as follows:



In the Final Action the examiner stated (in part):

The Powers patent discloses a float controlled valve assembly for maintaining a liquid level in a reservoir; the valve assembly disclosed includes the same elements, as that in the instant application, and such elements perform these tasks in a similar manner as that in the instant application.

The only apparent structural difference between the device disclosed in this application and the device in the Powers patent, is the use of an adjusting screw #174 to establish a desired level of liquid in the reservoir.

The use of adjustment screw for such purpose is well known, as may be seen in the Gray et al, and Sherwood patents, hence the use of a screw for adjustment of the float is not considered of patentable significance.

Also the use of a different material for constructing the device disclosed and claimed is considered to be a mere selection of a known material, since the device performs its task in the same manner as that in the cited patent. The selection of a different and known material for constructing the device is held to be of expected skill for one in the art.

The argument presented by applicant in his letter of amendment dated February 2, 1976, has been considered, however, such argument does not overcome the above noted objection to the application. The combining of the water inlet nozzle with the shroud to make it a unitary construction is considered to be a mere expediency to one in the art, and, since the same elements are present, in the same form, and, the said element co-act in the same manner to produce the same result, it is deemed that nothing of patentable significance has been added to matter already disclosed by the cited patent, nothing that is, which cannot be considered as expected skill or a workshop improvement for one versed in the art.

In his response the applicant stated (in part):

The applicant respectfully submits that the Examiner has incorrectly concluded in his Report of Final Action that the device disclosed in the Powers patent includes the same elements as the device of this invention. As the applicant has indicated above, the present invention involves fewer elements, an integral construction, and a significantly different structure than Powers' device.

The applicant respectfully submits that the Examiner is also incorrect in concluding that the only apparent structural difference between the device of this invention and the device in the Powers patent is the use of the adjustment screw. While this structural difference may be the only one which is apparent from a superficial glance at the two devices, an in-depth examination of the facts discloses otherwise.

In the final action the Examiner states, as between the device disclosed by this invention and the device in the Powers patent:

"... since the same elements are present, in the same form, and, the same element[s] co-act in the same manner to produce the same result, it is deemed that nothing of patentable significance has been added to matter already disclosed by the cited patent, ..."

It is the applicant's submission that the Examiner has not properly addressed himself to the question of obviousness in this case, and has certainly not discharged the onus which lies upon him to show obviousness. The applicant has detailed the significant structural and operational differences present in this invention, as claimed by claims 1 to 4. There clearly are not identical elements present in the same form in this invention and Powers' patent. Also, since the device in the present invention has an integral structure and has the float arm pivoting about and through the U-shaped valve structure, the operation of the float controlled valve assembly elements differs from that in Powers' patent. The elements of the device in this invention do not "co-act in the same manner", since there is a difference in the pivoting movement. As well, the result which is produced by the float controlled valve of this invention is superior to the result produced by the device of the Powers' patent since, as has been described earlier, the present invention permits a more positive and direct valve opening and closing response.

We have carefully considered the prosecution of this application and the helpful information provided and arguments made by Mr. Burke at the Hearing.

The question which we must decide is whether the applicant has made a patentable advance in the art.

We find that the Powers citation, which is an earlier patent of the same applicant, is similar in several respects to the invention now claimed. According to Mr. Burke the application covers an improvement over the Powers invention, and one which has replaced it in the market place. He demonstrated models of the new valve assembly and of the Powers device at the Hearing.

One of the points made by the applicant is that the use of an integral-molded one piece shroud and nozzle assembly represents an improvement over Powers' multi-part metal unit. Powers uses a separate water deflecting member (88 in figure 15) both to pivotally support the float bracket 93 and to deflect the water coming through the nozzle, whereas the applicant utilizes a narrowed shroud for both purposes. The Powers deflector represents an extra component which requires additional manufacturing and assembly time avoided by the integral molded arrangement used by the applicant.

Another feature referred to by Mr. Burke is the manner in which float adjustment is made. He demonstrated the ease of making adjustments with the applicant's vertical set screw, and compared that to the difficulties encountered in using the horizontal adjusting screw found in Powers. The former is much easier to use, and can be adjusted better.

It was stated in the Final Action that the only apparent structural difference between Powers and this application is in the use of adjusting screw #174 to establish the desired liquid level in the reservoir. Sherwood and Gray have been cited to show the use of screw adjustments for float position. Both Sherwood and Gray use a set screw adjustment arrangement to set the lower float limit, which in effect serves as a maximum rate of fluid flow into the tank. At first blush these citations may appear pertinent. However, they do not effect the float level in the upper position to regulate the higher or operating fluid level. We have consequently concluded that

applicant's molded shroud and inlet arrangement, combined with the U-shaped arm which pivotally supports the float arm, as well as the set screw arrangement, does represent an advance in the art.

Turning now to the claims, claim 1 reads as follows:

In a corrosion resistant float controlled valve assembly for a humidifier, an integral synthetic plastic structure providing a combination water inlet nozzle and a shroud therefor, said shroud having spaced substantially parallel opposed side walls, a valve element support member integrally formed of synthetic plastic material pivoted about a transverse axis and formed with an up-standing tongue adapted to receive a resilient valve element for cooperation with said nozzle, said valve element support member being formed forwardly of said tongue with parallel pivot arms disposed respectively adjacent the opposite side walls of the shroud and pivotally connected thereto, an integral synthetic plastic float arm pivoted on said member about a spaced parallel axis, and means interconnecting said arm and member for pivotal support together about said first axis for moving said element to close said nozzle.

This claim specifies an integral synthetic structure pivoted to the walls of the shroud and the integral plastic float arm pivoted on the valve support element. Use of the integral plastic parts to replace the metallic components of Powers does not provide any unexpected result.

Pertinent to an assessment of this claim is the holding of the Exchequer Court in Van Heusen Inc. v Tooke Bros. Ltd. Ex.C.R. (1929) 89 at 97, which stated:

There is no invention in a mere adaptation of an idea in a well known manner for a well known or clear purpose in a well known art, without ingenuity, though the adaptation may effect an improvement which may supplant an article already on the market.

And at page 99:

A patent for the mere new use of a known contrivance, without any additional ingenuity in overcoming fresh difficulties, is bad, and cannot be supported. If the new use involves no ingenuity, but is in manner and purpose analogous to the old use, although not quite the same, there is no invention.

...

The making of a device in whole or in part of materials better adapted for the purpose for which it is used than materials of which those of the prior art were made, unless the mode of operation is thereby changed, does not constitute patentable invention.

It follows that the substitution of material, by which there is served no function or purpose different from the old use, does not merit the distinction of a patent monopoly unless an inventor is the first to see practical difficulties overcome (or advantages gained) as a result of his own ingenuity.

Vide also Sommerville Paper Boxes Limited v Cormier Ex. C.R. (1941) 49.

In our opinion claim 1 and dependent claim 2 should be refused. The only new feature in them is simple substitution of plastic for the metal pieces of the prior art.

Claims 3 and 4 which add the features which we have indicated as representing a patentable advance in the art are, in our view, allowable.

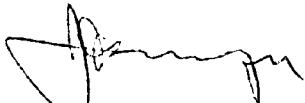
At the Hearing an independent claim 4 was presented for consideration along with dependent claims 5 and 6. We find that amended claim 4 contains the essential components of the invention and that it is acceptable to replace originally refused claim 4. Claims 5 and 6 are also acceptable as they add further features relating to the vertically arranged abutment and the upstanding web depending from the rear face of the tongue.

In summary, we are satisfied that the applicant has made a patentable advance in the art and recommend that the decision in the Final Action to refuse the application be withdrawn. Further, we recommend that the refusal of claims 1 and 2 be affirmed but the refusal of claims 3 and 4 should be withdrawn.



G.A. Asher
Chairman
Patent Appeal Board, Canada

Having considered the prosecution of this application and the findings of the Patent Appeal Board, I do hereby refuse claims 1 and 2. Further I direct that the refusal of claims 3 and 4, and of the application, be withdrawn. The subject matter covered by newly proposed claims 4, 5 and 6 is also acceptable. The applicant has six months within which to delete claims 1 and 2 or to take an appeal under Section 44 of the Patent Act. If claims 1 and 2 are deleted, the applicant must amend the remaining claims to correct their numbering and include the subject matter now appearing in existing claims 1 and 2. Newly proposed claims 4, 5 and 6 may also be submitted subject to a review by the examiner to ascertain whether they are satisfactory as to form and clarity.



J.H.A. Gariepy
Commissioner of Patents

Agent for Applicant

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Dated at Hull, Quebec
this 30th day of November, 1977