

A Brief Consideration of RAF Prior Art

During my prior art search for any reference that might remotely resemble the RAF method, I only came across one patent, #6,245,230 to Ricci, that an examiner might initially consider relevant to the prosecution. Based on the provided drawings of the reference device and its described usage for removal of chlorine from bath water, an examiner might attempt to extrapolate that the reference device could be utilized in the context of the RAF method. I have prepared a detailed tentative Information Disclosure Statement that will hopefully preclude that possibility. A copy of the reference patent, #6,245,230 has been included herewith. The text to follow is from the current version of the tentative Information Disclosure Statement.

Applicant offers the following comments on the cited reference US patent #6,245,230 to Ricci, titled Immersible portable dechlorinator, obtained after an extensive search of various patent data bases, and particularly U.S. Class 210/232. The Ricci patent discloses a porous, spherically shaped dechlorinating device that has an enclosed filter means. The device is utilized by placing it within a container of bath water, after which the bath water is induced to move through the filter media in the device by manually pushing and/or dragging the device (via a tether strap) back and forth through the bath water.

Whereas the use of the Ricci device relies upon what Ricci refers to as a manual "swishing" and/or a "dragging" of the cited device, a 3"-5" "bath ball," through a tub of bath water, all embodiments of the present inventive method of a Random Action Filtering Method, or RAF Method, for small scale liquid volume applications, primarily rely on an induced liquid turbulence for their filtering effect, i.e., rely on a vigorous liquid agitation. Without a vigorous shaking or a forceful random back and forth stirring, of a contained liquid, and a

consequential liquid turbulence and random wave action throughout the liquid volume, the RAF (filtering) effect does not occur.

In all instances, the Ricci patent discloses and claims a larger-order bath water filtering device of 3"-5" that could not be effectively utilized in the method of the present invention, i.e. , within the small volume containers that the RAF method utilizes. Ricci also does not suggest or speculate on the purification of any other liquids, to include drinking water, via his filtering method, nor does Ricci suggest or speculate on the use of a smaller scale .75" to 1.5" encased filter media, or the vigorous shaking or stirring of a liquid within a containment means, nor to any forced means of agitation of a liquid that would induce wave turbulence that will randomly pass omnidirectionally through a filter media. Moreover, such actions performed in a larger scale application such as bath water would be wholly inappropriate and would likely lead to water spillage over the sides of an open bath water container.

Since it is possible that Examiner may view the respective cited patent drawings and claims and assume that there is a direct or indirect correlation between the method of the Ricci device and the method of the present invention, applicant wishes to note that any seeming similarity between the drawings and the claims of the cited references and the newly invented RAF Method, is coincidental and finally irrelevant to the prosecution of the present application.

Additionally, applicant believes that no further combination of the cited reference with another filtering method reference can be logically utilized in combination to form any embodiment of the RAF Method. Furthermore, the Ricci patent does not address the issues of providing a universally applicable small scale liquid filtration method that is easily modified between an open or closed small volume liquid containment system. There is no suggestion or speculation in the Ricci patent specifications or claims that the Ricci device could or should be utilized in the overall manner of any embodiment of the RAF Method. Also, no actual combination of prior art references that might be speculated to produce

the present invention has occurred in the past ten years since the Ricci patent issued.

The RAF Method is not intended for, nor would it be applicable to the filtering of a large volume of water such as is contained in a bathtub. The RAF Method only realistically applies to small-scale applications of 8-64 liquid ounces, which are far less liquid volumes than the numerous gallons of water within a typical bath tub. The objects of the present invention generally refer to uses within low pressure, small-scale environments such as, for example, a portable drinking water container, and would be wholly unsuitable for use larger-scale filtering such as a tub filled with bath water. Thus, applicant sincerely believes that no claim that applicant has made for the RAF Method encroaches on the scope of the claims of the Ricci reference.

Applicant believes that since the Ricci patent was filed in 1999 and issued in 2001, that sufficient time has passed during which any filter method inventor could have developed the RAF Method if the Ricci patent were actually relevant to the RAF method. But this did not occur. If the Ricci reference were actually relevant to the prosecution of the present application, the RAF Method would certainly have been considered long before the conception of the present invention in February of 2011, with no prior knowledge of the Ricci patent.

The Ricci patent is currently utilized by the patent owner (George Ricci), as the founder and president of the Rainshower Manufacturing company, to produce a "bath ball" device which removes tub water chlorine by dragging the device by a strap (<http://www.rainshowermfg.com/>). No other filtering products have been located which make reference to the patent, and no text on the indicated web site makes reference to any use of the Ricci patent or devices for filtering drinking water or to decontaminating other liquids.

Applicant now refers to and offers comments on the only independent claim in the Ricci reference, which is:

1. A portable dechlorinator for a confined body of water, including in combination:

a hollow body member comprising first and second parts releasably connected together, with each of the first and second parts having an outer surface and an inner surface with a plurality of openings therethrough, the first and second parts being releasably connected together to permit access to the interior of the hollow body member;

(Comment: The present invention may, in certain embodiments, utilize a porous "hollow body member", but numerous filters utilize some form of a "hollow body member" within which to house their filter media means, whether this "hollow body member" is "releasably connected together" or appears as a single unit, such as a plastic or metal frame, or merely as a liquid permeable enclosure, as is the case with various embodiments of the present invention.)

chlorine removal filter material in the form of randomly oriented elongated spun filaments of a copper-zinc alloy located in the hollow body member; and

(Comment: The present invention can, in certain embodiments, utilize *chlorine removal filter material*, but numerous filters utilize some type of *chlorine removal filter material* if their given objective is remove chlorine from a liquid. The present invention can utilize the specific type of "copper-zinc alloy" "*chlorine removal filter material*" given in the Ricci claim, but it does so only when utilizing an induced turbulence method for forcing liquids through such filter media.)

a water-permeable cover inside the hollow body member between the filter material and the inner surface of the hollow body member, wherein the water-permeable cover is fabricated of gauze material designed to permit substantial flow of water therethrough while preventing the spun filaments of filter material from passing therethrough into the openings through the hollow body member when the hollow body member is moved back-and-forth in a confined body of water.

(Comment: The present invention can utilize various versions of a "*permeable cover*"; but numerous liquid filters utilize some type of "*permeable cover*" in order to prevent their respective filter materials from passing into the liquid.)

And as noted above, re "*the hollow body member is moved back-and-forth in a confined body of water*", the manual motive methods specified for this procedure in the Ricci reference and the present RAF invention are wholly distinct. In the Ricci reference, there is no suggestion or speculation on filtering effects that result from the vigorous agitation of a liquid to cause turbulent liquid waves to pass through a filter means. The Ricci reference only suggests, in column 3, L 28-30, that the device be, "*swished back-and-forth in the water a number of times...*" This, of course, would not lead to an induced turbulization of the bath water volume. And further, in column 3, L 32-35, Ricci suggests that, "*the chlorine present in the water is effectively removed in the same manner as in-line chlorine filters remove chlorine from the water passing through them in a shower unit.*" Clearly, this manner of filtering does not involve inducing turbulence in the bath water.

Applicant has also extensively searched the Internet using various search terms related to the terms and concepts utilized in the present invention application, and has not located any references to prior art in the public domain that appear relevant to the prosecution of this patent application. No liquid filtering device references were located that utilize contained, induced turbulent liquid wave effects to filter a liquid using the specified methods of the present invention.

Applicant trusts the good judgment of the Examiner to consider the intent of the present inventional method specification when comparing it to the intent of the Ricci reference, and not to read into the Ricci reference intentions and methods which are clearly absent, and thus irrelevant to the prosecution of the present application. Again, a typical RAF filter media means in a spherical form is a .75" diameter ball that is subjected to intense turbulence within a container to

cause its filtering effect. Such devices would be unable to clear the chlorine in a tub of bath water if dragged or otherwise moved through the bath water. And generating the required turbulence for the RAF (filtering) effect to occur would be unreasonable, as it would cause severe splashing and spillage from the tub.

Applicant also is of the belief that the numerous examples of the method's embodiments provided in the drawings and specification of the patent application for the present invention will be understood by Examiner as employing the same method of random turbulent action for liquid filtering in each respective embodiment. Applicant believes that differing species have not been entered into the patent application; but, if Examiner disagrees, applicant will later file the appropriate divisional applications.

And, finally, if the Examiner is in doubt as to the validity of the RAF Method, applicant will submit working prototype devices for experimental examination.