

COMMISSIONER'S DECISION

OBVIOUSNESS: Hand Clothes Washer

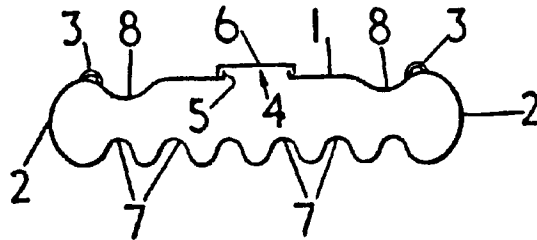
A large diameter tube closed at each end with corrugations on one wall is shown in the prior art. Applicants argument that his washing action is different from the prior art were refuted.

Final Action: Affirmed

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This decision deals with a request for review by the Commissioner of Patents of the Examiner's Final Action dated February 6, 1976, on application 143,585 (Class 68-47). The application was filed on May 31, 1972, and is entitled "Washer." The Patent Appeal Board conducted a Hearing on September 28, 1977, at which Mr. N. Hewitt represented the applicant.

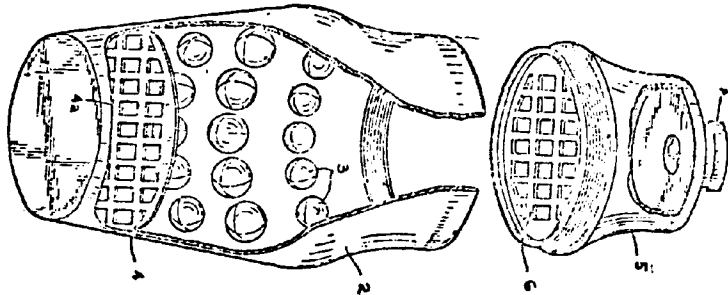
This application relates to a device for washing clothes by hand. It consists of a large diameter tube closed at each end and at least one part of the tube has intruding corrugations therein. Figure 1 shown below is illustrative of that arrangement:



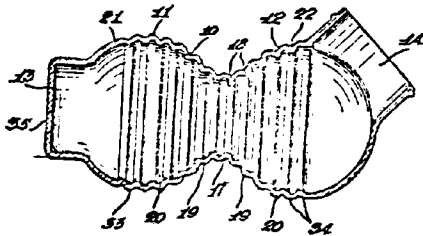
In the Final Action the examiner refused the claims for failure to define any patentable improvement over the following references.

Belgian Patent	539,690	July 17, 1957	Scevola
Canadian Patent	375,067	July 12, 1938	Murray

Scevola relates to a device for washing clothes by hand. It is composed of two component cylindrical members which are threadably attached to each other, each member has a perforated disc and the longer cylindrical member has a series of internal bump type hemispherical protrusions. That invention is illustrated by the following drawing:



The Murray patent is for a hand clothes washer consisting of two attached spherical members with corrugations therein. An access cover is provided at one end. Figure 4 of Murray is shown below:



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

The Canadian patent to Murray shows all of the structural limitations recited in claim 1 including non-restricting corrugations except the rounded shape of the one end and the between-end location of the access means. The Belgian patent to Scevola similarly shows all of the structure recited in this claim except for the rounded shape of both ends and the corrugated shape of the intrusions. However the disclosure does not teach that the rounded shape of the ends to be of any benefit but states that the rounded shape can be improved by being "deformed" so as "to be concave to assist in promoting turbulence". In view of this, it is obvious that the recital of the ends as rounded cannot help to distinguish claim 1 from either of the references in an unobvious or patentable sense. Also, it is obvious that the mid-way location of the access means is of no significance and a reading of the disclosure confirms this, since it teaches that

this means may be at one end. Similarly whether the intrusions in the shell are bumps as shown by Scevola or "corrugations" as defined cannot be seen to involve anything of a patentable nature particularly in view of the emphasis placed on the non-constricting nature of these intrusions both in the claim and also in applicant's arguments. Furthermore claims 2 to 8, 10 to 13 and 15 specifying various arrangements of corrugations, a lateral opening, a concave end, a duct, a drainage plate, a stopper, a cap and two halves etc. add nothing of an inventive nature to claim 1, and fail to define structure distinct in a patentable sense from that of either of the references. With respect to claims 9 and 14, (formerly claims 8 and 13) these dependent claims recite only process of manufacture limitations, which cannot be relied upon to impart patentability to the previously defined and otherwise unpatentable product structure.

There is not shown to be any substantial advantage peculiar to a range of internal constriction ratios and this therefore obviously involves merely a matter of degree or relative size. In the absence of any specific limitation in this respect in the claims, applicant's arguments that the projections of Scevola are too shallow and the central constriction of Murray is too significant, to promote tumbling is not seen to be relevant.

In his response to the Final Action the applicant stated (in part):

Turning now to the specifications cited by the Examiner and which we note are being cited separately and not in combination, we will comment first on the Canadian patent to Murray. The Examiner alleges that all the features in claim 1 including the non-restricting corrugations [are shown by Murray]. It has already been stated that the claimed invention is concerned with an article in which the washing action is one in which articles move from one end to the other freely whilst undergoing a tumbling action because of the shape of the apparatus. This cannot possibly be the case in the cited patent. Each of the two spheres is described as being sufficiently large to contain all the articles being washed. If the Examiner is of the opinion that the smaller amplitude corrugations fall within the corrugations specified in claim 1 then he is incorrect since they cannot promote tumbling at the same time as offering a washboard effect (see page 4 of the patent, line 4). If on the other hand the Examiner is of the opinion that the neck in between the two halves is what constitutes the corrugation claimed in claim 1 of the present application then again he is incorrect since the purpose of the neck is to provide a constriction which results in the clothes being rubbed against the corrugated surface acting as a washboard. Therefore essential neck is intended to be a constriction and the washing action is achieved by moving the articles from one end to the other and at the same time rubbing against the washboard provided by the small corrugations. The washing action is decidedly different and there is nothing whatever in this Canadian patent which suggests that instead of rubbing surfaces of the articles being washed against a washboard like surface one can simply allow them to tumble freely from one end to the other. It will

of course be realized that corrugations acting as a washboard are entirely different from corrugations causing tumbling since in one case it is required that an article remain flat and be rubbed against the corrugations whereas in the other case the article is not required to slide relative to the corrugations but to roll on them. The teaching of this Canadian patent is therefore if anything, diametrically opposed to the washing principle of the article in the present application.

The Belgian cited patent does not show an elongate container. The claim does not specify what is meant by elongate though the specification gives a typical value of at least 4 to 1. As has already been mentioned the precise limiting value need not be specified in the claim since the limits of elongation and of the corrugations are already characterized by the function which they provide.

The question to be considered is whether the applicant has made a patentable advance in the art.

Claim 1 of the application reads:

A manual apparatus for washing articles of clothing, which comprises an elongated substantially tubular member made of a synthetic polymeric material, said member being closed at each end, and each such end having a rounded configuration, and a water-tight disengageable means between the ends of the said member for providing access to the interior of the member, said tubular member having a plurality of corrugations intruding transversely into the interior thereof without substantially constricting the interior of the member to promote turbulence of the water and tumbling of articles of clothing when the member is partly filled with water and said articles of clothing and shaken and thereby aid in the washing of said articles of clothing in said water.

At the Hearing Mr. Hewitt emphasized that the action achieved by the applicant's device is a "tumbling" action as compared to the "washboard" action of the cited prior art. This "tumbling" action allows the contained articles to tumble within the confines of the washing device.

Scévola with its jar like configuration uses small hemispherical protuberances on the wall to effect a rubbing action on the clothes when the device is agitated. The applicant argues that the ratio of length to diameter of Scévola is not conducive to the tumbling action obtained by his device. He states that a critical feature of his device is "that the tubular member is elongated and has sufficient elongation to provide for a tumbling action." Further according to the applicant, Murray cannot provide a tumbling action due to

the area of restriction between the two spherical like members. He adds that Murray's rib-like corrugations on the walls only serve to provide a "washboard" cleaning action.

We will now attempt to ascertain the manner in which the washing action takes place in a hand washer of this type. In the applicant's disclosure as originally filed he describes the action on page 1 at line 10 "as the tube partly filled with water is shaken" and the last paragraph of this page reads "the tubular member, when partly filled with water and detergent can be used for washing clothes by agitation along a longitudinal axis." Murray at page 9, line 18 describes the washing action as "the user fills the flask about half full of water ... and shakes the contents back and forth over the ribs or other corrugations in the waist and/or in the bowls." Scevola states his washing method as "agite ferment."

Therefore, it would appear that the basic requirement of this type of washing device is the shaking intensity to be provided by the individual user. At the Hearing Mr. Hewitt accentuated the "tumbling" action of the applicant's configuration as compared to the "washboard" action of the two citations. Since the intensity of movement (shake) appears, without any doubt, to be the governing feature in the use of this type of device, we feel that this factor will determine the motion of its contents. If the motion does not exceed the gravitational force then the contained garments will slide on the bottom of the device and would follow along that contour. Thus in the applicant's washer the clothes would slide along the surface of the serpentine configuration. Similarly for the same motion for either Murray or Scevola the clothes will also move along the bottom surface.

When a shaking motion that exceeds gravitational force is used then the contents are suspended in the device and would tend to be in a "semi-floating" position and move from end to end of the enclosing space.

Granted the configurations of the container will have some effect on the "washing action" at certain shakespeeds, but we conclude the operator's shaking speed is the primary contributor to the pattern of motion of the contents. Under these circumstances we fail to see any essential difference between "tumbling" versus "washboard" as outlined at the Hearing.

The applicant advances the argument that his ratio of length to diameter of 4:1 with a plurality of corrugations and rounded end members does promote turbulence of water to give him the "tumbling" action. Here again, in our view, the primary contributor of the contents motion is governed by the shaking intensity of the user and not by the peripheral contour of the device.

In discussing the Murray citation the applicant contends that the restriction between the two spheres prevents the "tumbling" action. We note that Scevola does not have any restriction in its construction and presumably the articles would move unrestrictedly within the container confines. As we have stated before, we believe that the shaking intensity is the governing factor on the articles' movement in the container.

Granted the citations do not fully anticipate the configuration used by the applicant. The use of corrugations however, on the walls of a hand clothes washer is well known. We believe what Mr. Justice Maclean said, in Niagara Wire Weaving v Johnson Wire Works Ltd.(1939) Ex. C.R. at 273, is pertinent: "Small variations from, or slight modifications of, the current standards of construction, in an old art, rarely are indicative of invention; they are usually obvious improvements resulting from experience and the changing requirements of users," and at page 276, "No step is disclosed there which could be described as invention. There is not, in my opinion, that distinction between what was known before, and that disclosed...that called for that degree of ingenuity requisite to support a patent. If those patents could be supported it would seriously impede all improvements in the practical application of common knowledge."

In summary, claim 1 is essentially directed to a hand container for washing clothes. The container is comprised of an elongated tubular member closed at each end. The tubular member having a plurality of corrugations intruding transversely into the interior of the member. These corrugations promote turbulence of the contents (water and articles of clothing) when put to use by shaking the container. This is clearly what the prior cited references teach. The arguments of alleged differences in the washing action is merely academic.

In view of the above considerations we are constrained to conclude that claim 1 is not directed to a patentable advance in the art. We recommend that claim 1 should be refused.

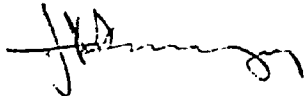
Claims 2 to 8 and 10 to 13, which depend directly or indirectly on claim 1, relate to: handles for gripping, drainage plates, stoppers and different type corrugations. We do not find that these add any patentable significance to refused claim 1. The same arguments used in refusing claims 1 apply equally to these claims. Claims 2 to 8 and 10 to 13 should also be refused.

Claims 9, 14 and 15 were refused by the examiner, and properly so, since they would protect exactly the same apparatus as we have already found unpatentable (cf. Hoffman La Roche v Commissioner of Patents, 1955, S.C.R. 414). There was a lengthy discussion at the Hearing whether the process steps found in these apparatus claims might be patentable if presented as process claims. We think it is questionable that they would in fact be patentable, but since such claims are not on file, nor examined, we feel we should not express a final conclusion on that point.

We recommend that the decision of the examiner to refuse claims 1 to 15 be affirmed.


J.F. Hughes
Assistant Chairman
Patent Appeal Board, Canada

I have studied the prosecution of this application and I concur with the recommendation of the Patent Appeal Board. Accordingly, I refuse to grant a patent on claims 1 to 15. The applicant has six months to cancel claims 1 to 15, but if he so desires, he may resubmit claims 9, 14 and 15 in appropriate form for further prosecution, or to appeal my decision under the provision of Section 44 of the Patent Act.



J.H.A. Gariépy
Commissioner of Patents

Agent for Applicant

Marks & Clerk
Box 957, Station B
Ottawa, Ontario

Dated at Hull, Quebec

this 28th. day of October, 1977.