

Commissioner's Decision

Novelty, New use of Known Material: Substrates Treated with Technetium-99

The material described in the application was found not to be new, and the discovery of a new use did not add the dimension of novelty to the treated articles. It was noted that the allowability of the method claims should be reassessed. Rejection affirmed.

This decision deals with Applicant's request for review by the Commissioner of the Final Action on application 268,698 (Class 31-34), entitled METHOD FOR THE PREVENTION OF FOULING AND CORROSION UTILIZING TECHNETIUM-99. The inventor is Carl B. Wootten. The Examiner in charge issued a Final Action on March 26, 1980 refusing to allow claims 16 to 33 of the application to proceed to patent.

The application relates to a method for the protection of substrates subject to biological fouling or corrosion, which applies an effective coating of Technetium - 99 or compounds or alloys thereof to the substrate to be protected.

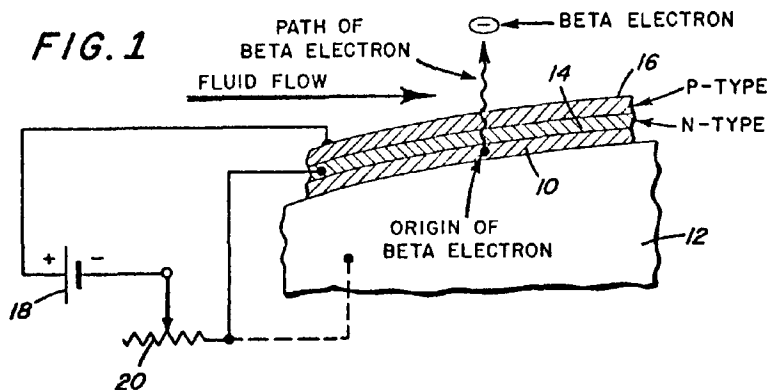
In the Final Action, the Examiner rejected claims 16 to 33 which are directed to Technetium - 99 treated articles, as lacking invention in view of the following references, but indicated that the other claims, i.e. method claims 1 to 15, appear to be allowable.

United States Patents	3,374,157	Mar. 19, 1968	Box
	3,510,094	May 5, 1970	Clark
Publication	J. Am. Chem. Soc. Vol. 77, p.2658 (1955)		

The Box patent relates to the electrodeposition of Technetium-99 as

a smooth, adherent deposit on the surface of a selected metal substrate.

The Clark patent relates to a means and method of controlling the magnitude and energy level of radioactive emissions from a surface. One example given is an aerodynamic body which has a beta emitting radioactive material applied thereto by one of several means, e.g. electroplating, and then coating such surface first with an N-type semiconductor and then in turn applying a P-type coating to form a P-N junction diode. Thereafter, current control is applied to the P-N junction to vary the beta emission. Figure 1 of this patent illustrates the structure.



The article in J.Am.Chem.Soc., Vol. 77, p.2658, describes inhibition characteristics of Technetium under corrosive conditions.

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

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The rejection of claims 16-33 is maintained, because the claims lack invention in view of the cited art. The references disclose articles having a coating of Technetium-99

on their surfaces. The applicant also admits that articles coated with Technetium-99 are known and taught in the prior art. (see page 7 lines 7-19 of the disclosure, and applicant's letter of December 13, 1979 on page 1). Applicant's alleged invention is a new use, i.e., simultaneous protection from both corrosion and biological fouling, of a previously known article. One may not patent a known article with the restriction that it is to be used for a particular purpose. Furthermore, a claim to a known article in a particular environment does not render the said article new.

The rejection of claims 16-33 is maintained because they are contrary to Rule 44 of the Patent Rules (formerly Rule 43). Claims 16-33 represent an undue multiplicity of claims which are not necessary to protect the alleged invention.

Once a new method of use of a known article is claimed, no more protection is gained by claiming that article in a particular environment or physical shape. Under Rule 44 no more claims shall be allowed than are necessary. The Commissioner's Decision published in the Patent Office Record of Jan. 10/78, pages XIV-XXI, is pertinent to the present rejection of claims 16-33, because it is directed to the refusal under Rule 43 (now Rule 44) of an undue multiplicity of claims.

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In response to the Final Action, the Applicant argued, (in part):

To repeat, the prior art does not recognize that a coating of Technetium-99 or Technetium-99 containing compounds or alloys will protect a substrate simultaneously from both corrosion and biological fouling. Because the prior art does not recognize this discovery, it is submitted that there is no basis at all in the applied references supporting the rejection of claims 16 to 33 on the basis of their lack of invention from which it is gathered that the Examiner means that he considers the invention to be obvious in view of the applied references, that is the invention as claimed in claims 16 to 33.

Clearly, there are no facts of record in this file which support such a position. The references do not anticipate any of Claims 16 to 33 and any one of the references when combined with common general knowledge fails to teach applicant's invention and in fact there appears to be no support for any common knowledge showing that it is to be expected that the coating would protect a substrate simultaneously from both corrosion and biological fouling.

As for the rejection of the Claims on the basis of undue multiplicity, there is already of record a reasoning in support of the need for product claims. It is recognized that

applicant has discovered a new use for a known composition. However, the discovery has lead to a new composition as claimed in Claims 16 to 33 and therefore applicant believes that he has a right to claim the discovery in the form of a new composition as well as in the form of a method in order adequately to protect his rights provided for under the Patent Act. It is not unknown in practice before your office to permit the claiming of compositions where a discovery resides in a new use. The most common practice in this regard exists with respect to Section 41 cases where one discovers a new pharmaceutical use for a known compound and your office permits that discovery to be claimed as a composition consisting of the active ingredient and a carrier. It is submitted that we have a parallel here and that the Claims 16 to 33 do not constitute an undue multiplicity simply because they would not necessarily be infringed by the same actions.

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The issue before the Board is whether or not claims 16 to 33 are directed to a patentable advance in the art. Claim 16 reads:

An article of manufacture resistant simultaneously to both biological fouling and corrosion, said article comprising a body having a surface which is exposed to a fluid environment when the article is in use, said surface being formed by a composition subject simultaneously to both corrosion and biological fouling when in said fluid environment, and a coating of Technetium-99, its alloys, or compounds, on said surface of said composition, the coating being present in an amount sufficient to simultaneously inhibit both growth of organisms and corrosion on said surface when it is in contact with the fluid environment.

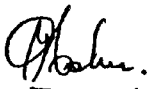
We find that the article in the publication J. Am. Chem. Soc. gives clear direction that Technetium is effective as a corrosion inhibitor under corrosive conditions. From the Box patent, we are provided with information concerning the electroplating of technetium on the surface of a metal substrate. The Box patent also states that Technetium-99 is a low energy beta emitter. The Clark patent discloses a particular use of a beta emitting radioactive material with P and N type coatings to obtain a P-N junction diode covering the beta emitting substance. We also find that Applicant's disclosure admits that technetium has been used for preventing

corrosion of metal substrates, and makes reference to the publication in J.Am. Chem. Soc., supra. From that information it is apparent that the material Applicant describes in his application is not new.

One of the requirements made in Section 2 of the Patent Act is that an invention must be new. In this instance however, as stated above, we find that the material is not new, and consequently that the subject matter of claims 16 to 33 inclusive lacks novelty. The additional discovery of the corrosion inhibitor as an anti-fouling agent does not add to the product the dimension of novelty required by the Patent Act.

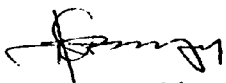
To conclude, we find that claims 16 to 33 are directed to known technetium-treated articles, and these claims fail because of lack of novelty. We recommend that the decision in the Final Action to refuse claims 16 to 33 be affirmed.

While they were not rejected in the Final Action, we note that the method claims of the application are in effect directed to the same use that the article claims define, and that the range of thickness of the coating in the method claims has been described in the art of record. Further we note that various ways of applying technetium to a metal substrate have been discussed in the prior art. We think that whenever prosecution is resumed, the Examiner should reassess the allowability of the method claims.



G.A. Asher
Chairman
Patent Appeal Board, Canada

I concur with the reasoning and findings of the Patent Appeal Board. Accordingly, I am not prepared to accept claims 16 to 33. The Applicant has six months within which to submit an appropriate amendment or to appeal my decision under the provisions of Section 44 of the Patent Act.



J.H.A. Gariépy
Commissioner of Patents

Dated at Hull, Quebec

this 16th. day of December, 1981

Agent for Applicant

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