

COMMISSIONER'S DECISION

Division; Double Patenting - Siloxanols Used to Render Materials Hydrophobic

This is a divisional application. The issue was whether or not the present method is directed to a different invention from that deemed in the parent, which had issued to patent. It was found that the present claims define an invention separate and distinct from that defined in the claims of the parent.

Final Action: Withdrawn

This decision deals with a request for review by the Commissioner of Patents of the Examiner's Final Action dated February 15, 1977, on application 226819 (Class 117-113). The application was filed on May 13, 1975, in the name of Richard N. Lewis, with the title "Method For Modifying Surface Of Inorganic Substrate." The Patent Appeal Board conducted a Hearing on September 13, 1978, at which Mr. M. Marcus represented the applicant. Also in attendance was the United States patent counsel, Mr. L. Ford.

This application is a division of application 159,897 (now patent 997363), and is directed to modifying the surface of an inorganic substrate to render such surface hydrophobic. It comprises heating the substrate in the presence of an alpha-alkoxy-omega-siloxanol, $R'O(R_2SiO)_xH$. The inorganic substrate so formed is novel in that it has its surface modified by being hydrophobic.

In the Final Action the examiner refused the application because, in essence, it was his opinion that only one invention was described in the original disclosure as filed. He argued, inter alia, that only one patent may issue for one invention, utility is not separable from invention, and the granting of a patent for a utility disclosed in an existing patent would be in effect the grant of a second patent to the same subject matter. This would result in the extension of the monopoly already granted in the applicants patent.

In response to the Final Action the applicant went into great detail in an attempt to show that he was claiming an invention in the present application which is separate and complete from the monopoly grant of his patent claims that resulted from the parent application. He also argued that "the claims presented herein are not validly rejectable in view of the teachings of his prior patent;" and "the claims presented herein are not unpatentable 'method of use' claims."

At the Hearing Mr. Marcus argued to the effect that, in his view, the invention defined in the present claim is clearly described in the present disclosure, and the same description can be found in the original application. He then proceeded to discuss the pertinent parts of the disclosure.

The consideration before the Board is clearly one of deciding whether or not the invention defined in the present claims is fully described in the disclosure, and is separate from the monopoly grant of the patent.

The disclosure of the patent is directed to alkoxysiloxanols and the process of preparing same. Claim 4 reads:

A process for preparing an alpha-alkoxy-omega-siloxanol having the formula $R'O(R_xSiO)_xH$ which comprises reacting in the substantial absence of a basic catalyst, a cyclic polysiloxane with a primary or secondary alcohol of the formula $R'OH$ in which R is selected from the group consisting of a monovalent hydrocarbon radical, a halogenated monovalent hydrocarbon radical and a cyanoalkyl radical having up to 8 carbon atoms, R' is selected from the group consisting of alkyl radicals, cycloalkyl radicals, alkenyl radicals, aralkyl radicals and substituted derivatives thereof having up to 20 carbon atoms and x is an integer of from 2 to 10 in a mol ratio of alcohol to cyclic poly-siloxane of at least 2:1 and a temperature up to the reflux temperature of the alcohol.

The present application is directed to a process for producing an organic substrate having a hydrophobic surface. Claim 1 reads:

A process for producing an inorganic substrate having a substantially hydrophobic surface which comprises: applying an alpha-alkoxy-omega-siloxanol to the substrate; and thereafter heating the substrate to a temperature sufficient to render said surface substantially hydrophobic, wherein the alpha-alkoxy-omega-siloxanol has the formula $R'O(R_2SiO)_xH$, in which R is selected from the group consisting of hydrocarbon radicals, halogenated hydrocarbon radicals and cyanoalkyl radicals having up to 8 carbon atoms, R' is the radical of an alcohol having up to 20 carbon atoms, and x is an integer of from 2 to 10.

The specific question is whether or not a second invention is described and claimed.

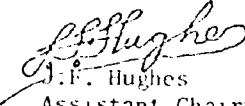
One of the uses of the compound in the patent was given as an "antistructure agent" or softener. Example 14 on page 10 gives a different use and, in our view, an unobvious one, because it is directed to a "hydrophobic" property as opposed to the "antistructuring" property. It reads:

Six drops of CH_3OD_3H were applied to the surface of a clean glass plate. After 10 minutes at room temperature the surface was washed off with acetone and found not to be water repellent. A second glass plate was treated with six drops of CH_3OD_3H and heated 15 minutes at $105^{\circ}C$. The liquid had evaporated and the surface was found to be somewhat water repellent; water drops on the surface formed a contact angle of about 60° . A third glass plate was treated with 6 drops of CH_3OD_3H and heated for 30 minutes at $150^{\circ}C$., whereby it became water repellent; water drops formed contact angles of about 70° on the surface.

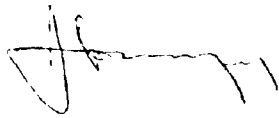
This clearly describes the utility of the invention defined in the present claims. We are therefore satisfied that the claims define an invention separate and distinct from that defined in the patent.

The situation in this case can be distinguished from a previous decision of the Commissioner (POR May 2, 1978), which was discussed at the Hearing, because in that case no second invention was described in the parent application.

We recommend that the decision in the Final Action to refuse the application be withdrawn.


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

I have studied the prosecution of this application and reviewed the recommendation of the Patent Appeal Board. I concur with the recommendation of the Board and accordingly withdraw the Final Action.

A handwritten signature in dark ink, appearing to be 'J.H.A. Gariepy', written in a cursive style.

J.H.A. Gariepy
Commissioner of Patents

Dated at Hull, Quebec

this 4th. day of October, 1978