

COMMISSIONER'S DECISION

Adequacy of Disclosure - Perinone Dyestuffs

The issue was whether applicant had sufficiently identified the dyestuffs to warrant claiming them. There were sixteen examples illustrating starting compounds, formulae, dye color, chemical analysis, and melting points. In this case that was considered sufficient to justify claiming the compounds within the scope of claim 1.

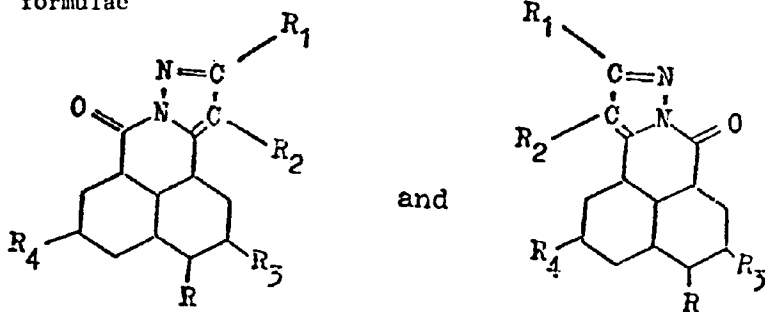
Rejection reversed.

Patent application 178,122 (Class 260-246.1), was filed on August 3, 1973, for an invention entitled "Perinone Dyestuffs And Process For Preparing Them." The inventor is Helmut Troster, assignor to Farbwerke Hoechst Aktiengesellschaft. The Examiner in charge of the application took a Final Action on March 15, 1978, refusing to allow it to proceed to patent. Applicant requested a Hearing to present further arguments but, on reviewing the prosecution of application 178,122, we have concluded such a Hearing is not necessary.

The application is directed to dyestuff compounds which are in fact isomeric mixtures. These compounds are prepared in a conventional manner and are useful in dyeing various synthetic materials.

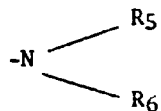
Claim 1, recited below, gives the scope of the monopoly sought.

Dyestuffs consisting of the mixture of isomers of the formulae



wherein R₁ is hydrogen, alkyl with 1 to 20 carbon atoms, alkoxyalkyl or alkoxycarbonyl each with 1 to 4 carbon atoms, benzyl, alkoxycarbonyl with 1 to 20 carbon atoms or phenyl, R₂ is alkoxycarbonyl with 1 to 20 carbon atoms, cyano, alcanoyl, alkoxyalkoxycarbonyl each with 1 to 4 carbon atoms, carbonamido, phenylcarbonamido, mono- or dialkylcarbonamido with 1 to 8 carbon atoms or cyclohexylcarbonamido, R₃ and R₄

are identical and are hydrogen or alkoxy with 1 to 4 carbon atoms or R_5 is alkoxy with 1 to 4 carbon atoms and R_4 is hydrogen and R is phenylthio which may be substituted by one or two chlorine or bromine atoms, alkyl, alkoxy, carbalkoxy, alkylsulfonyl groups each with 1 to 4 carbon atoms or a cyano, trifluoromethyl or nitro group; naphthylthio, pyridinethio, benzimidazolyl-2-thio, benzoxazolyl-2-thio, benzthiazolyl-2-thio or an amino group of the formula



wherein R_5 and R_6 are hydrogen, alkyl or hydroxyalkyl with 1 to 4 carbon atoms or phenyl, or together are piperidine, morpholine or piperazine.

In the Final Action, the Examiner refused all the claims on the grounds that there wasn't sufficient disclosure to warrant granting the monopoly defined by the claims. The following comments, extracted from the Examiner's report, outline his position:

The compounds claimed have not been identified and there is not one single identifying characteristic in the entire specification of the compounds named and claimed.

There is not one single quantitative result qualifying the utilizable properties of the compounds claimed and there is not one single embodiment described as required by Section 36(1) and Rule 25.

The compounds which have not been prepared and the compounds whose characteristics (identifying chemical, physical and utilizable properties) are not known remain equally unknown for the person skilled in the art.

The Examiner maintained that indicating the color the dyestuff gave to a substrate was not sufficient disclosure of the property of the compounds themselves to properly identify them, or to indicate that they had really been prepared. He suggested that physical characteristics of the compounds, such as a "chromaticity diagram" would be necessary, and that this property should be given for a few representative compounds selected from the broad class of compounds and also for the specific compounds claimed.

Responding to the Final Action, Applicant argued that the requirements called for by the Examiner in the Final Action were not in conformity with the practice of the Patent Office for patents issued in the dyestuff art. To support that contention, he cited a list of patents, including some of his own, in which the products are identified generally by formulae, dyeing characteristics on a substrate, and method of preparation. He further argued as follows:

Thus, Examples 1 to 10 and 64 to 69 clearly describe the starting materials, the amounts taken of such materials, the reaction conditions, the formulae of the isomeric dyestuffs obtained and certain properties of the dyestuff, namely, that it colours certain materials a particular colour with very good fastness properties. Typical of these examples is Example 1 where the formulae of the dyestuff components of the isomeric mixture is set out on page 9. This isomeric mixture is described as crystallizing in golden-yellow crystals. On polyester fabrics brilliant greenish-yellow dyeings were obtained having a good fastness to light and to sublimation. If this were not enough the constitution of the product is confirmed by reference to elemental analysis figures - see page 9, lines 16 and 17.

It may be noted that it is a relatively simple exercise to calculate elemental analysis figures once a structural formula has been provided. The following statement taken from Applicant's response illustrates the position which he has adopted.

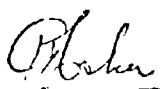
"Applicant considers it abundantly clear that when the colour of the dyeing on a material, e.g. polyester, has been given, this means that the dyestuff was prepared and that it was tested for its utility as a dyestuff on that material."

In the present case the number of compounds covered by claim 1 is quite large, and doubtless this has given rise to the Examiner's concern that the invention is speculative rather than factual. However, there are sixteen examples which describe in some detail how various representative products are prepared, giving such things as the starting materials, quantities used, chemical analysis, structural formulae, colour, colour produced on fibers, and melting points. In seventy-three other instances the disclosure indicates the structural formula and colour of compounds prepared. From the extent of this disclosure we ourselves are satisfied that the Examiner's concerns are unfounded, or at the very least that there is not sufficient reason for rejection.

Furthermore, the processes to prepare the new compounds are relatively straight-forward, and there is no suggestion that there would in fact be any difficulty in preparing them as the Applicant directs.

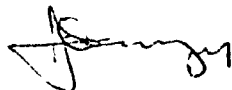
We are consequently persuaded that the subject matter of present claims 1 to 7 is allowable. We believe, however, that the structural formulae given in the specification should be amended to show that the ring structures are benzoidal, as was done in the corresponding U.S. Patent 3920662. We also note another apparent error in claim 1 which should be corrected. In it R_1 is defined in one place as being alkoxycarbonyl with 1 to 4 carbon atoms, and in another as alkoxycarbonyl with 1 to 20 carbon atoms.

Our recommendation is that the final action should be withdrawn, and that claims 1 to 7 should be allowed if amended as suggested above.



G. Asher
Chairman
Patent Appeal Board, Canada

Having considered the prosecution of this application and the recommendation of the Patent Appeal Board, I now direct that the rejection be withdrawn, and that the prosecution be resumed. Applicant should make the corrections called for within six months of the date of this decision.



J.H.A. Gariepy
Commissioner of Patents

Dated at Hull, Quebec

this 12th. day of March, 1980

Agent for Applicant

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