

COMMISSIONER'S DECISION

OBVIOUSNESS: Geological Exploration

Claim 1, which relates to an apparatus for collecting geochemical samples employing an airborne vehicle, held to be too broad in scope in view of the prior art.

FINAL ACTION: Affirmed.

This decision deals with a request for review by the Commissioner of Patents of the Examiner's Final Action dated July 18, 1975, on application 119,565 (Class 73-102). The application was filed on July 30, 1971, in the name of Sainsbury, Cleo L., and is entitled "Geological Exploration Method and Apparatus." The Patent Appeal Board conducted a Hearing on August 21, 1975, at which Mr. R. Hicks represented the applicant.

The application relates to a method and apparatus for obtaining geological and geochemical samples from the surface of the earth, with the aid of an airborne vehicle. The refused claims are specific to a method and a collecting apparatus utilizing a "relatively stiff support" rather than a flexible cable.

In the Final Action the examiner refused claims 1 to 10, 13, 14, 18 and 22 for failing to define patentable subject matter over the following references:

Canadian Patent			
790,987	July 30, 1968	CONVERSE	
United States Patent			
2,488,486	Nov. 15, 1949	WORZEL	

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

It is held to be an obvious and uninventive step requiring mere technical expedience to one skilled in the art to substitute a sampling device such as that of Worzel to obtain samples of surface material from the earth. The further steps of analysing the geological nature of the samples collected and entering the information on a topological map is a well-known step and is widely used.

It is held therefore that applicant in the above claims has merely and solely added or adapted without invention, old and similar contrivances to the prior art.

...

In his letter of 6, February, 1974, applicant has argued that due to the hazards involved in his air-borne method of collecting samples that it was considered to be impossible, but that since he had carried out such a method, it is feasible and that it is therefore an entirely unobvious and hence novel method which is entirely worthy of patent protection. It is pointed out, however, that such reasoning is contrary to the provisions of Section 2 "invention", of the Patent Act. In assessing whether subject matter falls within the meaning of a patentable invention, jurisprudence and legislation has established that the subject matter cannot rely on the exercise of personal skills and that it must be operable, controllable and reproducible by the means disclosed by the inventor so that the desired result inevitably follows whenever it is worked. Applicant's method obviously depends on the skill of the operator of the aircraft and indeed skilled experts in this field, as stated by applicant, considered the hazards incident upon the procedure such that it was impossible. Further, it does not follow that a less-skilled operator of an aircraft could necessarily operate and control applicant's device so that his method is reproducible to produce the required samples. Applicant's method has not eliminated the danger inherent in his sampling technique.

The applicant in his response dated October 8, 1974 to the Final Action stated (in part):

The Examiner has finally rejected claims 1 to 10, 13, 14, 18 and 22 as failing to define patentable subject matter over Converse taken in conjunction with Worzel. Additionally, claims 1, 6, 7, 8 and 9 have been rejected as being unsupported by the disclosure. Claim 13 has been further rejected as indefinite. In order to expedite the prosecution of this application, applicant has cancelled claims 1 to 9, 13, 14, 18 and 22 and has presented the remaining claims in independent and renumbered form. Thus, with the exception of claim 10, applicant has complied with the Examiner's requirement to remove the objectionable matter and it is submitted that the remaining claims are in condition for allowance.

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Claim 10, which has now been rewritten in independent form as claim 1 in this application, specifically recites that the means for extending the sample means from the vehicle, for causing the sample means to contact the surface of the earth and collect a solid sample and for returning the sample means and the solid sample to the vehicle includes a stiff and supple elongated support extendable from the vehicle. It is submitted that no such structure is to be found in either the Worzel or Converse references relied upon by the Examiner and that therefore claim 10, now claim 1, is allowable together with old claim 11 (new claim 2) and claim 12 (now claim 3) to which the Examiner has raised no objection. It is pointed out, for example, that Worzel merely defines a hitch line 18 for attaching the sample device to the stern of the boat and thus, by definition, defines a flexible line or cable similar to applicant's cable 23 illustrated in Figures 1a, 1b and 1c of the present application and now excluded from claim 1 in this application. Converse describes a similar elastic cable 14 which includes a resilient portion 14c which, it is submitted, is quite distinct from applicant's stiff but supple elongated support 31, as illustrated in Figure 2 of the present application. It is to be noted that at page 6, lines 18 and 19, applicant describes a flexible and shock-absorbing line 23 for use in the embodiment of the present invention illustrated in Figure 1. In contrast, applicant describes an alternative and additional form of the sampling device, as illustrated in Figure 2, in the paragraph bridging pages 7 and 8 of the disclosure. In this paragraph applicant makes a clear distinction between the flexible cable 23 and the stiff but supple elongated support 31. The two are not mere mechanical equivalents of each other and in the absence of any teachings in Converse and Worzel, it is submitted that applicant is entitled to patent protection on this embodiment of his invention.

The CONVERSE citation relates to the acquisition of data by underwater sensing devices, and in particular to the acquisition of such data by means of an air-towed underwater probe. Claim 1 of the citation is representative of that invention and reads:

A method of acquiring data in a fluid from a moving vehicle in which a sensing device is towed by said vehicle by means of a flexible means, that said sensing device immersed in a certain location in the fluid is moved therefrom by means of tension in said means stretched on account of the movement of said vehicle so that said sensing device is given a predetermined speed with respect to said vehicle and immersed into the fluid at another location, and that data in the fluid is collected through repeated operating consisting of towing and immersing the said sensing device.

The Worzel citation relates to a device, which is operated from a ship, for obtaining samples of the surface layer of the ocean bottom.

It is observed that the applicant has cancelled all the refused claims with the exception of claim 10, which he has submitted as new claim 1.

Therefore, the only question before the Board is to consider whether amended claim 1 defines patentable subject matter over the cited references.

Amended claim 1 reads:

An apparatus for collecting geological specimens from the surface of the earth comprising the combination of: sampling means for contacting the surface of the earth and for acquiring a geological specimen for the surface at the point of contact; an airborne vehicle from which said sampling means can be extended; means for extending said sample means from said vehicle, for causing said sample means to contact the surface of the earth and collect a sample, and for returning said sample means and said sample to said vehicle, including a stiff and supple elongated support extendable from said vehicle with said sample means.

It is clear that this claim reads on the prior art with the exception of the last two lines "...including a 'stiff and supple elongated support' extendable from said vehicle with said sample means."

In discussing that embodiment the disclosure on page 8, starting at line 2 reads: "It will be observed that this technique, using a relatively stiff support rather than a flexible cable 23 as depicted in Figures 1a - c is especially useful with certain forms of sample collecting devices and when collecting samples of relatively loose material such as gravel or sand."

It is clear from the object of the invention that the applicant thought he was the inventor of a new concept when he states: "It is an object of the present invention to provide a method of geological or geochemical exploration which is capable of being performed (from an airborne vehicle) in a substantially shorter time than occupied by previous methods"

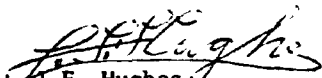
Of course the prior art teaches that the concept, collecting samples utilizing an airborne vehicle, is old. Therefore any allowable claim must be an unobvious advance in the art where the basic concept is old.

As previously noted the relatively stiff support "is especially useful with 'certain forms' of sample collecting devices." The applicant is, however, obtaining patent protection for such a combination in allowed claim 3.

There is no doubt that the applicant has made some modifications over the prior art. The specific issue is whether his solution involved such an exercise of the creative faculties of the human mind as to merit the distinction of invention and a claim to monopoly. It has been authoritatively stated that the art of combining two or more parts into a new combination whether they be new or old, or partly new and partly old, so as to obtain a new result, or a known result in a better, cheaper, or more expeditious manner, is valid subject matter if there is sufficient evidence of thought, design, and ingenuity in the invention, and novelty in the combination. (See Merco Nordstrom Valve Co. v. Comer (1942) Ex. C.R. 138 at 155).

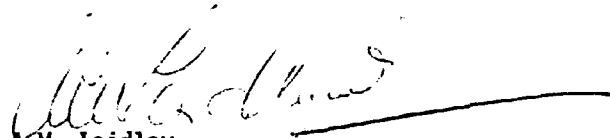
To merely state that the elongated support is "stiff and supple," as opposed to the prior art which shows an elongated support which is "supple," is not in our view a patentable advance in the art. It is merely a difference of degree of flexibility of the support. The applicant did state that the combination was especially useful. No result, however, has been achieved which can be considered to have flowed from an inventive step. In our opinion it comes within the category of matter to which the Supreme Court referred in Crossley Radio v. Canadian General Electric (1936) S.C.R. 551 at 557, when it stated: "...we do not think the inventive element necessary to constitute subject matter is made sufficiently evident." (See also Micro Nordstrom v. Comer, supra).

The Board recommends that the decision of the examiner to refuse claim 1 (former claim 10) as lacking a patentable advance in the art be affirmed. Although the Board was not requested to consider claim 2 (former claim 11) we are concerned as to why the addition of "a basket" secured to the end of the elongated support, would make it a patentable combination over refused claim 1. A basket or container must be secured to the support in order for the combination to work successfully. The cited references of course shows that basic combination.


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

I concur with the findings of the Patent Appeal Board and refuse to grant a patent on amended claim 1. The applicant has six months within which to delete claim 1, or to appeal this decision under the provisions of Section 44 of the Patent Act.

Decision Accordingly,


A.M. Laidlaw,
Commissioner of Patents.

Dated at Hull, Quebec
this 27th. day of August 1975

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