

DECISION OF THE COMMISSIONER

UNOBVIOUS: Combination of Known Elements. Known elements, using known principles, have been brought together in a new combination, and provide a solution to a problem, neither of which is suggested by the references taken singly or as a whole.

FINAL ACTION: Reversed.

IN THE MATTER OF a request for a review by the Commissioner of Patents of the Examiner's Final Action under Section 46 of the Patent Rules.

AND

IN THE MATTER OF a patent application serial number 030,681 filed September 23, 1968 for an invention entitled:

PORTABLE RADIO DEVICE

Agent for Applicant

Messrs. Marks & Clerk,  
Ottawa, Ontario.

This decision deals with a request for review by the Commissioner of Patents of the Examiner's Final Action dated January 19, 1971 refusing to allow application 030,681.

The Patent Appeal Board conducted a hearing on August 17, 1971. Mr. Chappell represented the applicant.

Application 030,681 was filed September 23, 1968 in the name of K. Fujimoto et al and refers to a Portable Radio Device.

In the prosecution terminated by the Final Action dated January 19, 1971 the examiner refused the single claim in view of prior art, namely:

Publication

JASIK: Antenna Engineering Handbook, first edition; copyright 1961; chapter 27 especially pages 5 to 8 and 37.

Reference of Interest

United States Patent  
2,990,546      Jun. 27, 1961      Cl. 343-767      Haas

In the Final Action the examiner stated:

The rejection of the single claim is maintained, the reason for such rejection being lack of invention in view of the cited patent and the state of the art.

On page 37 of Chapter 27 of JASIK there is described and illustrated in Figure 27-45 an antenna developed by W.A. CUMMING which responds to all the significant features of the device claimed in the claim of this application.

The CUMMING antenna radiator admittedly is of more complex shape than that of the applicant's antenna and the elements of the radiator are not arranged in precisely the same manner in the two cases. However, the antenna of the reference does have both horizontal and vertical portions. It is important to note that the form of radiator used by the applicant is known as one may see from the HAAS patent. Thus, if there is any invention in this application it must be in the particular arrangement of the antenna radiator with the radio device body and the dielectric element rather than in the form of the antenna proper. It is held that various specific forms of antenna could be used so long as they are suitable for the particular location.

In view of the above discussion the rejection of the single claim of this application is maintained. The examiner also maintains, as from the beginning of the prosecution, that this application as originally filed does not appear to contain any patentable subject matter. Since amendment to overcome the rejection on prior art does not appear to be possible this action terminates the prosecution of the application before the examiner.

The applicant in his letter of April 19, 1971 stated:

A careful study of the cited publication in the light of applicant's disclosed and claimed structure brings at once to mind the test concerning the sufficiency of a prior disclosure when that disclosure is to constitute an anticipation of a later filed patent application. It is submitted that the test is rather stringent.

It is submitted that the only feature which the Cumming structure has in common with applicant's structure as disclosed and claimed herein is that both structures are concerned with an antenna. However what the JASIK publication does not show that is critical to an analysis of the present invention makes a much longer list. Thus Cumming is concerned with an antenna for the VHF navigation system of an aircraft. In the Cumming structure the antenna is not however mounted on the body of a radio at all - it is mounted on the vertical stabilizer fin of an aircraft and would be connected by the usual cable means to radio navigation equipment disposed within the aircraft. Furthermore in the Cumming structure the antenna is mounted in a cut-away portion on top of the aircraft vertical stabilizer fin i.e. in the Cumming structure the antenna is not mounted on a corner portion of a radio device. Furthermore the cut-away portion of the vertical stabilizer fin certainly cannot, by any stretch of the imagination, be considered to be of a triangular prismatic form.

For the cited publication to be deemed an anticipation of applicant's structure as disclosed and claimed herein it would be necessary to consider either a complete aircraft or a vertical stabilizer fin thereof to be a portable radio device; to assume that the top of the aircraft vertical stabilizer fin is a corner of the aircraft; to interpret the plastic housing shown in the cited publication, and which may be generally designated to be of conic configuration, as a "dielectric element of a triangular prismatic configuration"; to further interpret the plastic housing shown in the cited publication and which clearly has no function other than that of a cover shaped to minimize air resistance, as "a dielectric element...for increasing the effective electrical length of the antenna element and decreasing the actual physical length thereof"; and further to consider the hub portion of the Cumming antenna and which clearly merely serves as a mount for Cumming's dipole loop antenna as a "short-circuiting element...for impedance matching of the antenna system" with a radio device body, and it is submitted that none of these assumptions are in fact justified by the disclosure in the cited publication. There is in fact no teaching nor suggestion in the cited publication of a structure comparable with that disclosed and claimed herein, the problems confronted by and solutions to which were proposed by Cumming being of an entirely different nature to those which applicant herein confronted and solved by the structure for which protection is sought by this application.

After reviewing the grounds for rejection set forth by the examiner as well as the arguments both written and oral set forth by the applicant I am not satisfied that the rejection is well founded.

At the hearing the Patent Agent reviewed the stand of the applicant and stressed the point that in his opinion the device as claimed was in fact a new combination and therefore a patent should be granted.

The consideration to be resolved is whether the subject matter in Claim 1 lacks invention in view of JASIK and the state of the art.

The application is directed to a portable radio having an antenna of known type (see U.S. patent to Haas) attached to a cut-away corner of radio case, and a dielectric element shaped to correspond to the cut-away corner enclosing the antenna.

The Jasik Handbook describes an antenna, similar but not identical to that of the applicant, located on a cut-away portion of the top of an aircraft vertical stabilizer and enclosed in a plastic housing. The reference of interest (Haas) shows an antenna similar to that used by applicant.

It is well established that a new combination of well known elements may be patentable. The question is not whether the elements are new but whether the combination of elements, with its arrangements of parts is new, useful and the result of inventive ingenuity.

Applicant's claims cover a very specific article. Applicant has taken known elements and used known principles and brought them together in a device which is not suggested by the reference taken singly or together.

In my view the tail fin of an aircraft (Jasik) is not analogous to a portable radio. Furthermore the size and configuration of the Jasik antenna do not lead one to applicant's small portable radio.

Admittedly the Haas reference shows an antenna similar in configuration (and possibly size as well) to applicants' antenna. Haas also asserts the known principle that the electrical length of an antenna may be increased depending on the dielectric constant of material placed between the antenna and the ground plane. However, Haas was concerned with the problem of streamlining an antenna mounted on the exterior of a fast moving missile.

Applicant on the other hand is concerned with mounting an antenna of a specific type (similar to Haas) on a radio body and protecting the antenna from mechanical damage by locating it within the projected outline of the body of the radio, the location being specifically defined. He also encases the antenna in a dielectric for the dual purpose of completing the outline of the radio body and increasing the electrical length of the antenna.

I feel that while each of the elements used by applicant may be known or obvious and the principles employed may also be known, nevertheless applicant has brought them together in such a manner as could be considered a new combination.

In the circumstance, therefore, I am of the opinion that an advance in the art has been made, and that it would not be obvious to arrive at applicants' combination from the prior art relied upon by the examiner. I am also satisfied that applicant has made a prima facie showing of inventive ingenuity.

I recommend that the rejection, against the allowance of the claim of this application, should be withdrawn.

R.E. Thomas,  
Chairman, Patent Appeal Board.

I concur with the finding of the Patent Appeal Board and I am therefore setting aside the Final Action and returning the application to the examiner for resumption of prosecution.  
Decision accordingly,

Dated at Ottawa, Ontario,  
this 1st day of September, 1971

A.M. Laidlaw,  
Commissioner of Patents.