

COMMISSIONER'S DECISION

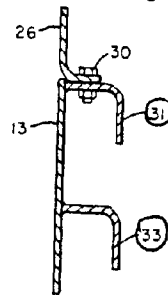
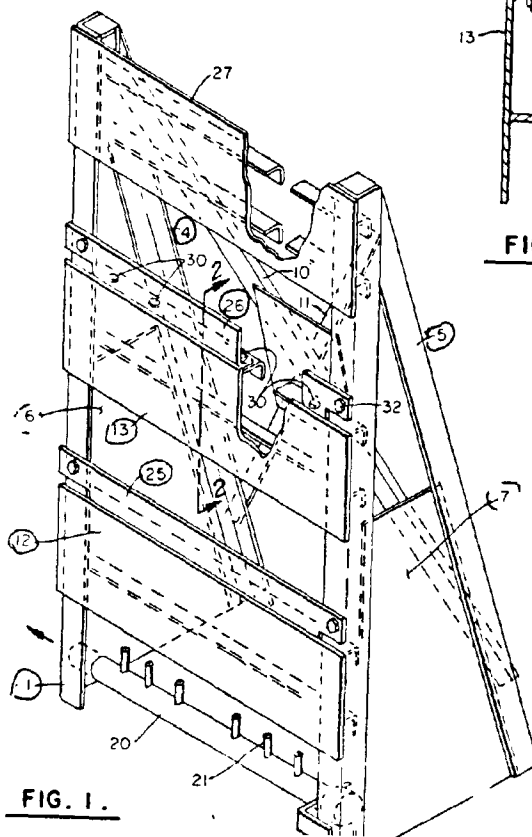
OBVIOUSNESS: INSTRUMENT RACK STRUCTURE

The sole reference relied on does not show detachable mounting plates which are each mounted to both the permanent plate between the upright frame members as well as to the frame members.

Final Action - Withdrawn

This decision deals with Applicant's request that the Commissioner of Patents review the Examiner's Final Action of January 4, 1984 on application No. 370,403 (Class 347-32). The application was filed February 9, 1981 by Combusion Engineering Inc. and is entitled Instrument Rack for Nuclear Power Station. The inventors are Niranjana R. Bhatt and Dana C. Chase. The examiner in charge refused the application. After studying the applicant's response to the art applied in the Final Action, we believe the evidence on file is sufficient for a review of the case without conducting a Hearing at this time. The Applicant was informed that the request for a Hearing on this application was not necessary.

This application relates to a framework for supporting transmitters or transducers in a nuclear power station. It is designed to withstand huge physical shocks that are anticipated in this environment. Figures 1 and 2 are illustrative of the application.



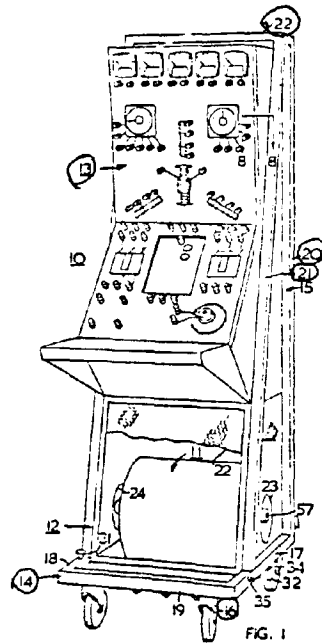
Side plates 6 and 7 are welded to the frame members 1, 2, 4 and 5.

Vertical members 1 and 2 are further joined together by plates 12, 13 and 27 which have stiffening ribs 31 and 33 thereon. Removable plates 25, 26 to which the transducer or transmitter is attached are bolted to stiffening rib 31 as well as vertical members 1 and 2.

In the Final Action the Examiner refused the application in view of the following patent:

Canadian Patent 763,564 July 18, 1967 Poesl

Poesl describes electrical test apparatus for use in laboratories. It consists of a castor mounted base member having a pair of side frame members which are attached to an upper rectangular frame member. Figure 1 is shown below:



Base 14 mounted on castors 16 carries frame members 20 and 21 joined at the upper edge by rectangular member 22. Panel 13 has various gauges and connectors thereon.

The Final Action stated (in part):

...

Claims 1 to 5 are not patentably distinguished in view of the Poesl patent which shows a mechanical framework for the support of instrumentalities.

The applicant's frame construction does not perform any new or inventive features over teachings of the Poesl's patent and is directed to mere design matter of one skilled in the art. Forming frames, by bolting or welding of structural elements and plates and reinforcing them by ribs, using different materials is well-known in the art.

The applicant's alleged invention is directed to a workshop improvement and does not involve the exercise of the inventive faculty essentially required for the grant of a monopoly. Merely using a different material like stainless steel and meeting the requirements of codes and standards, and then locating such a construction in a nuclear power plant does not mean that such a construction is an invention.

...

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

...

The Examiner, in the March 11 Final Action, uses the Poesl patent as a starting point and simply concludes, without indicating how he arrives at the conclusion, that the invention disclosed and claimed in the subject application is obvious, notwithstanding that the invention as disclosed and claimed in the subject application contains many features (as noted above) which are neither disclosed or suggested in the Poesl patent, that the Poesl invention was directed to an entirely different problem than that faced by the present applicant, a problem which had to be solved in an entirely different manner, and that the structure disclosed in the Poesl specification would be quite inappropriate for use in nuclear installations, which is what the subject application is directed to. The Examiner indicates that forming frames by bolting or welding of structural elements and plates and reinforcing them by ribs using different materials is well known in the art. The Examiner cites nothing in support of this contention except the Poesl patent, although even if true, the Examiner has over-simplified the invention defined in the claims of the subject application, and has apparently completely failed to appreciate the problem faced by the inventor which was that of providing the flexibility required to alter, add, or change arrangements of instrumentalities in a nuclear power installation while still retaining the strength and rigidity of structure required for such installations. Applicant's invention does not reside in the use of welds or bolts to connect frame members, nor indeed in the selection of stainless steel as structural material. Applicant's

invention resides in the overall combination defined broadly in claim 1 of the application, although none of the Examiner's comments are directed specifically to this arrangement (which is discussed in some detail above), and the reference cited by the Examiner discloses none of the important features of the claimed combination which are discussed at some length in the specification of this application.

As noted in the previous response dated January 4, 1983, with reference to the recent, and as yet unreported decision of the Supreme Court of Canada in Shell Oil Company v. The Commissioner of Patents, an idea may well have patentable merit even though, once the idea is known, there is no difficulty whatsoever in putting it into a practical or useable form. This is simply another means of observing, as has been so frequently observed, that many inventions appear simple when viewed in hindsight. However, the inventive ingenuity required of the present applicant appears no less than that required of the inventor in the Poesl patent, and, having regard to the complete failure of the disclosure of the Poesl patent to anticipate or suggest the novel features of the subject application, it is not understood why the Examiner in this case takes the position that applicant's invention lacks patentable merit. It is worth observing that the problems of safety in nuclear power installations have been the subject of considerable concern for many years and the Poesl patent issued some sixteen years ago (and some thirteen years prior to the priority date of the subject application), although the teachings of Poesl did not previously enable anyone previously to create the useful invention disclosed in the subject application.

...

The consideration before the Board is whether or not there is a patentable advance in the art. Claim 1 reads:

A mechanical framework for the support of a plurality of discrete instrumentalities at a selected location in a nuclear power installation, the framework having a successful resistance to seismic forces and environmental conditions resulting from coolant escape, including,

a first pair of parallel stainless steel structural members,

a plurality of stainless steel plates permanently welded between the first pair of structural members to form a rectangular rack,

means for permanently mounting the first pair of parallel structural members in a substantially vertical position,

a detachable stainless steel plate adapted to be rigidly mounted on each of a selected one of the plurality of stainless steel plates which are permanently welded to the first pair of structural members, and on said first pair of structural members,

means for detachably mounting the detachable stainless steel plate to its permanent stainless steel plate and to said first pair of structural members,

conduits and auxiliary instrumentalities arranged on and attached to the permanent plates for extension to connection with instrumentalities mounted on the detachable plates,

and instrumentalities mounted on the detachable plates and adapted to be connected to the conduits mounted on the permanent plates.

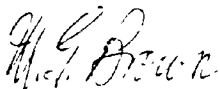
It is the Examiner's position that the applicant's frame construction does not perform any new or inventive features over Poesl and is merely design matter of one skilled in the art. On the other hand the applicant argues that his structure provides a mechanical framework which is capable of resistance to seismic forces and shocks as required by relevant regulatory agencies and various codes and standards for the nuclear power industry. This is accomplished by providing a mechanical framework that meets the strength, rigidity and immobility requirements of the industry and yet provides a degree of flexibility to permit the rearrangement of transducers and transmitters as the need arises after installation.

Poesl shows a framework structure consisting of a base with a pair of parallel members extending, and attached, to an upper rectangularly shaped frame member. Castors are attached to the base member to provide portability to the unit. This portable test unit carries various electrical test components that are mounted on the framework structure. One of the objectives stated in the Poesl patent is to have "a transportable carriage which may be detachably connected to an adjacent similar carriage having mounted thereon a similar electrical device and including means whereby the electrical rotating devices on the two adjacent carriages may be readily detachably connected in driving and driven relationship". Figures 2 to 5 of the patent show and detail the coupling arrangement for two carriages.

According to the applicant his provision of detachable mounting plates on the framework which are securely connected to permanent mounted plates and the frame members provide strength and rigidity required of nuclear power installations. While acknowledging that Poesl is superficially similar to the applicants frame structure, he maintains that Poesl contains no structural details of the superstructure. He argues that Poesl is not concerned with the strength of the mechanical framework nor with the provision of detachable instrument panels as required for use in a nuclear power plant.

While the framework shown in the citation may appear to be similar to figure 1 of the application, we are unable to find any description in Poesl relating to the structural aspects of the upper framework. We particularly note that the applicant has detachable mounting plates, each mounted to both the permanent plate between the upright frame members as well as to the frame members. Consequently we see that the applicant's structure represents details that are not dealt with by the Poesl citation.

Accordingly we are unable to find that the applicant's structure is present in the sole reference relied on and we recommend withdrawal of the Final Action refusing the application in view of that citation. Moreover we recommend that the application be returned for consideration of the patentability of the details not found in the citation.

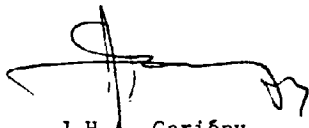


M.G. Brown
Acting Chairman
Patent Appeal Board



S.D. Kot
Member

I concur with the findings and recommendations of the Patent Appeal Board. Accordingly I withdraw the Final Action and remand the application to the Examiner for further prosecution.



J.H.A. Gariépy
Commissioner of Patents

Dated at Hull, Quebec

this 22 day of April 1986

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