COMMISSIONER'S DECISION

INUTILITY - S. 2: Inoperable to Produce Desired Result.

The alleged invention of an engine to operate "without any loss of energy" is contrary to scientific principles. The purpose for which the engine was designed was not capable of attainment by persons versed in the art; thus no benefit is conferred on the public by the alleged invention.

FINAL ACTION: Affirmed.

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This decision deals with a request for review by the Commissioner of Patents of the Examiner's Final Action dated April 10, 1973 on application 142,930. This application was filed on May 25, 1972 in the name of Haptain R. Wongh and refers to a "Pneumatic Engine."

This application relates to an engine which operates on compressed air contained in a storage tank. The storage tank is recharged by pumps driven by the engine, thus allegedly, the engine requires no input of external energy to maintain operation.

In the prosecution terminated by the Final Action the examiner refused the claims in view of prior art, and because the device is impractical and thus lacks utility.

In the Final Action the Examiner stated in part:

> Reference Re-Applied
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> Canadian Patent
> 119,556 July 27, 1909 Cl. 60-30 Dwgs. 2 shts. Pittman et al
>
> This application discloses an engine which operates on compressed air contained in a storage tank which is recharged by pumps driven by the engine which, by operating in accordance with applicant's "Law of Haptopian Introduction of Energy", requires no input of external energy to maintain operation.
>
> The above re-applied reference teaches an engine which operates on compressed air contained in a storage tank which is recharged by an air pump which may be driven by the engine. The only basic difference between applicant's engine and that of the reference is that applicant's engine allegedly requires no external energy input

> to maintain operation while the engine of the reference does require periodic recharging of compressed air from an external energy source to maintain operation. This application has not taken into account the frictional losses which are inherent in any machine and which necessitate the input of energy from an external source to maintain operation. This application is thus rejected as failing to show any improvement over the teaching of the above reference. It is also pointed out that, even if this application could be amended to provide for the input of energy from an external source, it would still fail to show any improvement over the prior art.
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> ...
>
> Referring to applicant's letter of December 15, 1972, any discussion of applicant's "Law of Haptopian Introduction of Energy" is pointless. The application must supply the information required by Section 36 of the Patent Act, and Section 28(3) of the Patent Act specifically excludes the granting of a patent for an abstract scientific theory.
>
> This application is therefore rejected as disclosing and claiming an engine which fails to show any improvement over the prior art and which lacks utility.

The applicant in his response dated June 26, 1973 to the Final Action stated in part:

> (1) That Your petitioner verily believes that he is entitled to request the Commissioner of Patents to review the examiner's action because he has rejected the validity of pneumatic engine has had claimed, for the said request having regard to the provision of the Patent Act, Rule 46(2), because the examiner has had rejected this application for patent with two fallacy reasons.
>
> (i) The examiner has had accused this pneumatic engine which has had no improvement over the reference engine with his false notion about the engine frictional force which causes of lost energy, but the frictional force which inherited in an engine is not a phenomena of losses energy. Frictional force is a phenomena of the degree of efficiency. Also the examiner has had ignored the mechanism which operates the engine that played the ultimate rule of efficiency. Therefore, the examiner's first accusation is a fact of fallacy.
>
> (ii) The examiner has had accused this engine has no utility because his false notion which he believed that the engine's two refilling pumps would used up the engine's useful output, but actual these two pumps only required an input of ten horse powers, and by removal of other frictional parts of the combustion engine in the course of converting to pneumatic engine has given an increase about 18 horse powers. Therefore, the examiner's accusation is a fact of fallacy.

The question to be determined is whether the subject matter of the application is considered to be a patentable advance in the art.

Claim 1 reads:

> The Pneumatic Engine was invented through a simple conversion of an internal combustion engine, and it serves the same function and application as the internal combustion engine. But the Penumatic Engine operates by a different mechanism than the internal combustion engine. The Pneumatic Engine is a noncombustible engine; it operates by transitional energy, or compressed air, in a closed system of continuous processes but without consuming any substance; because energy cannot be created or destroyed. Energy can only be introduced and consequently quantitatively transferable. The Pneumatic Engine moves about by operation of its own mechanism and has great capacity to do work. Moreover, its power and size can be manipulated by means of tailoring its size and power according to the need. Besides, it requires only a minimum of input in order to produce a maximum of output. It has unique characteristics over the internal combustion engine because it is free from pollution because it is a noncombustible engine. It is the most economical engine of the world today because it does not consume any substance. Therefore, it becomes the indispensible engine for all forms of industry and all forms of transportation.

The reference to Pittman discloses an engine which can be driven or operated by air under compression. A description of the invention is given of page 1 which reads:

> ...In the preferred application of the invention to locomotive engines, the latter is equipped with the usual wheel driving mechanism and cylinders with which the pumps cooperate, a portion of these pumps being actuated solely by the movable elements of the engine, and the remaining portion of the pumps being manually operative and used only to start the engine and connected to a receiving reservoir having communication by means of suitable pipes with storage reservoirs, and the storage reservoirs attached by conduits to a distributing reservoir simulating the usual boiler of a locomotive.

Also, claim 1 of this reference reads:

> In an air motor of the class described, a distributing reservoir adapted to be charged at intervals from air compressing stations, storage reservoirs connected to the distributing reservoir, a receiving reservoir having pipe connection with the storage reservoirs, the pipe connection being provided with cut-off and exhaust valves, driving mechanism including cylinders and pumps, tubular supply connections between the cylinders and distributing reservoir, tubular connections between the pumps and receiving and storage reservoirs, and hand pumps for charging the distributing reservoir in the event that the pressure in the latter runs low.

From a consideration of claim 1 it is found that it basically relates to an engine which can be driven or operated by air under pressure. The only basic difference between the device as disclosed in this application and that of the reference is that while the present device purports to require no external energy input, the engine of the reference requires periodic recharging from an external energy source to sustain operation.

It is a well established fact that friction energy losses are inherent in any machine, and therefore an input of external energy is required to replace the frictional energy losses. However, since there is no provision for an input of external energy to maintain in operation the engine described and claimed, it would operate to continuously produce a limited amount of power only so long as the supply of compressed air lasts. Furthermore, the use of pumps driven by the engine to recharge the storage tank merely reduces the usable power available in the storage tank.

The applicant has disclosed and claimed what he calls a "closed system process," in the form of an engine which he purports will operate without any loss of stored energy. This is succinctly stated in the annex to the response to the Final Action, at page 3, which reads: "Moreover, this pneumatic engine is a multiple machine, thus it has capacity to recover that small amount of compressed air which has escaped into the atmosphere from the engine's parts and joints, because air is readily available for refilling. Hence, at the end of each operation of this pneumatic engine it has the same amount of energy in its storeage (sic) tank, therefore, this pneumatic engine has optimum utility because it has no operation cost."

The applicant has argued "that the examiner is wrong in his assessment of the invention." It is, however, a settled consideration that the frictional losses in any machine must be reconciled, and that no machine operating from a source of stored energy can perform without loss of energy. In our view, therefore, the applicant's arguments in this regard are not based on the accepted scientific principle of energy loss by friction. Accordingly, we must conclude that the applicant's theory is incorrect.

Of interest in the present determination is the rationale of the Exchequer Court in Minerals Separation v. Noranda Mines Ltd., (1947) Ex.C.R. 306, wherein Thorson P. stated at page 316:

> Two things must be described in the disclosures of a specification, one being the invention, and the other the operation or use of the invention as contemplated by the inventor, and with respect to each the description must be correct and full. The purpose underlying this requirement is that when the period of monopoly has expired the public will be able, having only the specification, to make the same successful use of the invention as the inventor could at the time of his application. (underlining added)

And at page 317 he stated:

> When it is said that a specification should be so written that after the period of monopoly has expired the public will be able, with only the specification, to put the invention to the same successful use as the inventor himself could do, it must be remembered that the public means persons skilled in the art to which the invention relates, for a patent specification is addressed to such persons.

What we are concerned with in the instant circumstance is "the operation or use of the invention as contemplated by the inventor." The applicant has promised as a result of his alleged invention "an engine that will operate without any loss of energy." "This promised result" must be capable of attainment by a person skilled in the art. If this is not so, the device lacks utility in the patent sense because it is inoperable, that is, it cannot fulfill the purpose for which it was designed. See, for example, Northern Electric v Browns Theatre (1940) Ex.C.R. 36 at 56, wherein it is stated:

> An invention to be patentable must confer on the public a benefit. Utility as predicated of inventions means industrial value. No patent can be granted for a worthless art or arrangement. Here there is described and claimed something that lacks utility because it is inoperable for the purpose for which it was designed.

Also of interest is Raleigh Cycle v Miller, (1946) 63 R.P.C. 113 at 140 which reads:

> In other words, protection is purchased by the promise of results. It does not, and ought not to survive the proved failure of the promise to produce the results.

In Union Carbide v Trans-Canadian Feeds (1967) 49 CPR 29 the court held:

> I conclude that the patent is bad because the specification claims what is not useful in a patentable sense.

In re Le Rosair Appollo (1932) 49 RPC, the court concluded that when the theory upon which a patent was founded was erroneous, there was no subject matter or utility in the invention.

A distinction has to be made, of course, between "the promised result" and a mere wrong statement of the purposes for which that which is attained can be used, and between a promise of results and what merely amounts to a slight exaggeration of the results. Moreover, where several results are suggested, the invention will not lack utility because one of those suggestions proved over-sanguine, provided such failure does not apply to the use to which the inventor contemplates applying it.

In summary, the test of utility of an alleged invention depends on whether by following the directions of the specification the effects which the patentee professed to produce can be produced. In other words if the result is that the object sought to be obtained can be obtained, and is practically useful at the time when the patent is granted, the test of utility is satisfied.

In this instance, however, the Board is satisfied that the alleged invention is met by the Pittman reference (with the distinction that Pittman provides for an input of energy from the external source), and that what is described and claimed lacks utility, because it is inoperable for the purpose for which it was designed, "a device which operates without any loss of energy." Therefore, Sections 2 and 36 of the Patent Act have not been satisfied.

The Board therefore recommends that the decision of the examiner to refuse the application for lack of subject matter be affirmed.

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

I concur with the findings of the Patent Appeal Board. Accordingly, I refuse to grant a patent on the subject matter of this application. The applicant has six months within which to appeal this decision under the provisions of Section 44 of the Patent Act.

Decision accordingly,

A.M. Laidlaw,
Commissioner of Patents.

Dated and Signed in
Hull, Quebec this
20th day of February, 1974.

No Agent