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 June 8, 12,  
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 Nov. 9, 10  
1965  
 Feb. 17  
      

BETWEEN:

FREDERIC D. BARTON ..... PLAINTIFF;

AND

RADIATOR SPECIALTY COMPANY }  
 OF CANADA, LIMITED ..... } DEFENDANT.

*Patents—Infringement—Validity—Commercial success of patented product—Product merely a collocation by blending into one product two known substances—Two known substances combined into one product which is not a new substance and result of use of which is no better than result of separate use of each substance—Lack of inventiveness—Obviousness.*

In this action the plaintiff alleged infringement by the defendant of Canadian Patent No. 501,547 dated April 20, 1954, for an invention entitled "Stop-Leak Preparation", and the defendant counterclaims for a declaration that the patent is invalid, on the grounds of lack of inventiveness, anticipation or lack of novelty, obviousness, inutility, false suggestion and insufficient disclosure, ambiguity in the specification and that the claims are too broad.

The stop-leak preparation described in the plaintiff's patent consists essentially of ginger root flour and soluble oil or a mixture of rhizone flour and soluble oil.

The evidence established that for many years prior to the date of issue of the plaintiff's patent, soluble oil had been widely used commercially to prevent the formation of iron oxide rust in engine cooling systems and to inhibit radiator core corrosion, ginger flour had been used as a stop-leak in internal combustion engine cooling systems, and there had been widespread knowledge and use of an oil carrier for various stop-leak products included in which was the ingredient powdered ginger or ginger flour.

*Held:* That the considerable commercial success achieved by the plaintiff in marketing his product to which the patent in suit relates has resulted from the considerable ingenuity and skill with which he has marketed the product and the technique of selling his products as a three-way application for firstly, stopping leaks in radiators and cooling systems of internal combustion engines, secondly, as a water pump lubricant for such engines and thirdly, as a rust inhibitor, but this has nothing to do with the subject of a valid patent.

2. That there is no invention in the plaintiff's product, which is a mere collocation by blending into one product two known substances, namely, ginger root flour and soluble oil, and that the two substances combined into one product, which is not a new substance, do not produce a better result than if each substance is used separately.
3. That all the claims in the plaintiff's patent are not inventive and that they and the whole patent are invalid.
4. That the action is dismissed.

ACTION for infringement of a patent.

The action was tried by the Honourable Mr. Justice Gibson at Ottawa.

*Samuel Weir, Q.C., W. R. Meredith, Q.C. and D. F. S. Coate* for plaintiff.

*A. S. Pattillo, Q.C., W. L. Hayhurst and D. J. Wright* for defendant.

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The facts and questions of law raised are stated in the reasons for judgment.

GIBSON J. now (February 17, 1965) delivered the following judgment:

This is an action in which the plaintiff claims an injunction and other relief in respect of alleged infringement of Canadian Patent No. 501,547 dated April 20, 1954, for an invention entitled "Stop-Leak Preparation"; and in which the defendant counterclaims for a declaration that the said patent is invalid, and other relief.

This action came on for trial and was argued before Cameron, J., before his retirement. Thorson, P., as he then was, made an order on February 13, 1964, for a new trial on the existing evidence and argument. I have retried this action on that evidence and argument pursuant to that order and I now deliver judgment accordingly.

The product of the plaintiff which is the subject of the patent in issue in this action is a stop-leak preparation used primarily for the purpose of putting in the cooling system of internal combustion engines, in motor cars and trucks, to stop leaks.

It is the claim of the plaintiff that this product will stop not only external leaks in such cooling systems which occur in radiators, but also internal leaks in such cooling systems that is in cars in which liquid from such cooling systems seeps through the walls of the cylinders into the combustion chambers, or seeps into the oiling system of such engines.

The modern motor car and truck engine now runs much better and therefore more efficiently because of the discovery that the boiling point of the liquid in the cooling system of such could be raised by pressurizing the cooling system. But this had the disability of increasing the propensity of such cooling systems to leak, primarily through so-called pin-hole leaks in the radiators of such, but also

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though the water pumps and cylinder walls, etc., in the manner above mentioned.

The water pump leaking problem was solved by the development and use of sealed water pumps. And it is the allegation of the plaintiff that these other small, and difficult to eliminate leaks in such cooling systems were stopped by the use of his product which he developed, marketed and patented after World War II. Such marketing and patenting was done in the United States and Canada.

The product of the plaintiff is known as "Bar's Leaks".

The defendant made and put on the market a product which it calls "M. P. cooling system conditioner".

It is the allegation of the plaintiff that this product of the defendant is practically identical to his product and that as a consequence its manufacture and sale infringes the said patent of the plaintiff.

The specifications and claims of the plaintiff's patent are quite brief, *viz.*:

#### SPECIFICATIONS

My invention relates to stop-leak preparations, and more particularly to that type of stop-leak preparation employed in the cooling system of engines and has particular reference to the cooling system of automotive vehicles though not necessarily limited thereto.

Those prior art stop-leak preparations, of which I am aware, function on the theory of forming a film or coating over the leak while in the process of being circulated around the cooling system, and while such preparations can be relied on to produce quick results in the desired direction, the film or coating thus formed, remains directly exposed to the wearing action of the circulating water in the system and the abrasive action of any rust or grit which may be circulating around with the water.

Among the objects of my invention are:

- (1) To provide a novel and improved stop-leak preparation;
- (2) To provide a novel and improved stop-leak preparation which shall produce a more durable seal;
- (3) To provide a novel and improved stop-leak preparation having lubricating qualities beneficial to the water pump in a cooling system;
- (4) To provide a novel and improved stop-leak preparation capable of sealing cracks in radiator and engine blocks and seal leaks around those connections;
- (5) To provide a novel and improved stop-leak preparation which possesses the additional factor of inhibiting the formation of rust, thus maintaining a clean cooling system;
- (6) To provide a novel and improved stop-leak preparation which will not congeal on exposure to the atmosphere;
- (7) To provide a novel and improved stop-leak preparation which blends well with known anti-freeze solutions;

(8) To provide a novel and improved stop-leak preparation having no deteriorating action on the rubber or metal;

(9) To provide a novel and improved stop-leak preparation which will not deteriorate with time;

(10) To provide a novel and improved stop-leak preparation which may be readily prepared from cheap and well-known ingredients;

(11) To provide a novel and improved stop-leak preparation which will not form sludgy deposits.

Additional objects of my invention will be brought out in the following description of a preferred embodiment of the same.

My invention is based upon the discovery that plant roots, including rhizomes, when suitably prepared, have properties rendering them exceedingly effective in the stopping of leaks. In the preparation of my stop-leak preparation, the root is ground to the consistency of flour, preferably one which will pass through a 50 mesh screen, that is a screen presenting 2,500 openings per square inch of surface, following which, the root flour is mixed with oil and preferably an oil of the type known as soluble cutting oil.

A soluble oil, as defined in the Chemical and Engineering Dictionary (P 114), published by the Chemical Publishing Co. of New York, Inc., of New York City, is an oil having an emulsifier, with or without an auxiliary solvent dissolved in it, to make it dispersible in water. Soluble oil is conventionally employed in machine shop practice where it is known as cutting oil.

The relative proportions of the root flour to oil is not critical, though I prefer to employ approximately 2 pounds of the flour to each gallon of oil, and in using the same as a stop-leak preparation, it is added to the cooling system of an engine in the approximate ratio of 1½ ounces of the preparation for each gallon of water in the system.

From the view-point of cost, I have found ginger root flour to be preferred, though from the view-point of effectiveness as a stop-leak ingredient, other roots such as Orris, Tumeric, Blood root, Licorice, Poke and Sarsaparilla have comparable qualities.

As a suitable cutting oil for use with the root flour, I prefer to employ an oil marketed by the Texas Oil Co. under the designation "810 Soluble Oil C" and said by such company to contain 9% oil soluble sodium sulphonates, the sulphonic acids being derived from petroleum, and I prefer such oil because of its non-drying character.

What the action is, is not apparent to me at this time, but I have noticed that the ginger root flour when mixed with the soluble oil, settled down into a more compact and dense mass than when mixed directly with water. In comparative tests on this basis, employing equal amounts by weight of the ginger root flour, the flour in the oil, settled out into a compact mass which measured approximately 80% of the volume occupied by the material settling out of the water mixture.

It is conceivable, therefore, that what actually happens, is that the ginger root flour, by reason of its small particle size, is carried into the leaks however small, by the water, and gradually packs itself in, forming a dense and compact seal. Further evidence in support of this resides in the fact that complete stoppage of a leak is not instantaneous nor is such result realized within the brief period of time in which prior art film forming type of stop-leak preparations function. Once the leak is stopped however, its durability is much more permanent.

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Inasmuch as my stop-leak preparation does not rely on exposure to air for its effectiveness in plugging leaks, the preparation will not only stop seepage and leaks in the radiator and hose connections of an automotive cooling system which are exposed to the atmosphere, but also such leaks as may exist around the combustion chambers of an engine, such as cracked engine blocks, deficient head gaskets, etc., and is particularly effective in such situations in that the intense heat of combustion seems to convert the preparation of components thereof at the point of leak, into insoluble carbides to form a permanent seal.

Aside from the sealing properties of my stop-leak preparation, the mixture aids in lubrication of the water pump usually incorporated in a cooling system, and further functions as a rust inhibitor, thus maintaining the cooling system clean and free of rust, sediment and sludge.

While the root flour and soluble cutting oil constitute the essential ingredients of my stop-leak preparation, it is contemplated that other ingredients capable of effecting a beneficial function in conjunction therewith, may be incorporated in the preparation. Thus, I have found, for example, that crushed or ground nut shells such as almond shells, when circulated through the cooling system of an engine, have the ability to exert a mild scouring action on the walls of the cooling system, sufficient to maintain said walls clean and without deleterious effect on the cooling system.

#### *Claims*

1. A non-aqueous stop-leak preparation for the cooling system of an engine consisting essentially of ginger root flour and soluble oil.
2. A non-aqueous stop-leak preparation for the cooling system of an engine, consisting essentially of ginger root flour and soluble oil in proportions roughly of two pounds of ginger root flour to a gallon of soluble oil.
3. A non-aqueous stop-leak preparation for the cooling system of an engine, comprising a mixture of a rhizome flour and soluble oil.

The essential issues in this action are those of validity and infringement and the defendant firstly alleged that there was no infringement and secondly, in its plea of invalidity and counterclaim for revocation of the patent, relies on the following objections, namely, that no inventive step was involved, that there had been anticipation or lack of novelty, obviousness, inutility, false suggestion and insufficient disclosure, ambiguity in the specification, and that the claims were too broad.

The plaintiff's product is sold both in bottle form and also in pellet or pill form and is made by mixing ginger root flour with soluble oil. The matter of whether it is commercial ginger or spent ginger is a matter of indifference because it is the starch and the fiber roots in the ginger which are the two ingredients which are of value for the purpose of this product and according to the evidence there is not much difference between commercial ginger and

spent ginger because in spent ginger the starch and fiber roots have not been removed.

When mixed, the soluble oil is absorbed into the ginger and what happens is a physical reaction and not a chemical reaction in that no new material is formed.

The soluble oil referred to is in essence a petroleum oil which has had added to it an emulsifying agent either by having it dissolved in it or by adding such to it separately and mixed in it so that it becomes dissolved in the oil.

A soluble oil is dispersable in water because it contains such an emulsifier. Ordinary, or what might be referred to as straight oil, without an emulsifier when mixed with water will not disperse. Instead, there will be two separate layers, a layer of oil and a layer of water.

A soluble oil which contains an emulsifier when mixed with water forms an emulsion, but the soluble oil is not dissolved in water, but instead is dispersed in it only and when dispersed in it, it appears to be dissolved.

Both plaintiff and defendant adduced evidence in support of their respective contentions and as usual there was a dispute as between the experts as to a number of matters. But on reading the whole of the evidence, I have come to the conclusion that it is only necessary to consider one ground of the defence raised by the defendant in this action.

I am of opinion that the evidence clearly establishes that soluble oil has been used widely by many people commercially for many years prior to the date of issue of the plaintiff's patent to prevent the formation of iron oxide rust from the iron parts of radiators in cooling systems in internal combustion engines and also for the purpose of retarding the corrosion of radiator cores. At all material times this was well known, and indeed the plaintiff has used soluble oil for such purpose for many years.

I am also of opinion that the evidence establishes that ginger flour for many years prior to the date of the plaintiff's patent had been used as a stop-leak in the cooling system of internal combustion engines used in motor cars and trucks. Indeed a number of other persons had successfully obtained patents in respect to such stop-leak products using ginger flour.

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There was also for many years prior to the date of issue of the plaintiff's patent wide-spread knowledge and use of a liquid carrier, very commonly an oil, for various stop-leak products included in which was the ingredient powdered ginger or ginger flour.

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The evidence also establishes that there is no property in soluble oil which by itself would assist in stopping leaks in the cooling systems of internal combustion engines.

There is also no question that the plaintiff has enjoyed a considerable measure of economic success in the marketing of his product. But this I find on the evidence is due to the very considerable ingenuity and skill he employed in selling and merchandising his products. At one point in the evidence, he aptly describes the secret of his success when he says, and I quote, "So my progress continued, only by this time we had added to our sales story or medicine show, the practice of stating that we have stopped and can stop internal leaks against compression because the compression was not released from these cylinders."

The plaintiff by his skilful selling and merchandising techniques has been successful in selling his product to every major car manufacturer except Chrysler Corporation, to various oil companies for distribution through their service stations, and to many wholesale auto parts distributors throughout Canada and also the United States.

The secret of his success it is correct to infer was probably due to his merchandising technique of selling his product as a three-way application for firstly, stopping leaks in radiators and cooling systems of internal combustion engines, and secondly, as a water pump lubricant for such engines, and thirdly, as a rust inhibitor.

In that way he led the field in sales of products in this line and outstripped his competitors so much so that the defendant among others sought to emulate this merchandising idea of the plaintiff and did by combining its separate products into one product in the same manner as the plaintiff had done. Prior to that the defendant had sold separate products for each of the applications referred to above.

But this merchandising genius and the company's sales promotion, I find, has nothing whatever to do with the subject of a valid patent.

It is, therefore, clear that in this case there is no invention in the plaintiff's product, but that, on the contrary, it is a mere collocation by blending into one product two known substances, namely, ginger root flour and soluble oil, which are used for overcoming different difficulties, and that both combined in the one product (which is not a new substance) do not produce a better result than if each substance was used separately. The combining in one product makes it more convenient for the public, and, therefore, more desirable.

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I therefore find that all the claims in the plaintiff's patent numbered 501,547 are not inventive and that they and the whole patent are invalid.

The action, accordingly, is dismissed with costs, and the counterclaim is allowed without costs, and in part only, in that it is declared that the said patent and claims are cancelled and set aside.

*Judgment accordingly.*