

Privy Council Appeal No. 108 of 1915.

Alexander Gillies - - - - - *Appellant,*
c.

The Gane Milking Machine Company (Limited) *Respondents,*

FROM

THE SUPREME COURT OF NEW ZEALAND.

JUDGMENT OF THE LORDS OF THE JUDICIAL COMMITTEE
OF THE PRIVY COUNCIL DELIVERED THE 16TH NOVEMBER, 1916.

Present at the Hearing:

THE LORD CHANCELLOR.
LORD ATKINSON.
LORD PARKER OF WADDINGTON.
LORD SUMNER.
LORD WRENBURY.

[*Delivered by* THE LORD CHANCELLOR.]

This appeal arises out of an action brought by the appellant against the respondents, claiming relief in respect of an alleged infringement of certain Letters Patent numbered 16022 of 1903. The defendants denied the infringement, and raised the further defence that the Letters Patent were invalid because the alleged invention was not new, and was not a proper subject-matter for Letters Patent, having regard to the common general knowledge at the date of the grant.

The action came on for trial before Mr. Justice Sim, who heard the whole of the evidence, and it was then removed to the Full Bench of the Supreme Court, consisting of the Chief Justice, Mr. Justice Sim, and Mr. Justice Singer, who were unanimous in their decision that the Letters Patent were invalid, the question of infringement was only dealt with by the Chief Justice, and by him it was decided in favour of the appellant. For reasons that will appear, in their Lordships' opinion the question of infringement is not material.

The patent in question relates to a mechanical means for milking cows—a problem which has apparently exercised the inventive faculty of many people. Their Lordships were referred to some of these devices, but it is unnecessary to

examine them in detail. At the date of the appellant's patent, there were two distinct classes of machines for effecting the desired object. The one which was the earliest in use consisted of a single pipe branching at one end into attachments fastening on to the cow's teats and leading at the other into a chamber in which a vacuum was alternately created and relaxed. The object of this alternation of pressure was to relieve the strain on the cow, and to cause pulsation in the suction to which the teats were exposed. In these machines difficulty was experienced owing to the change in the pressure causing the milk to surge backwards and forwards in the pipe, thus hindering the flow of milk and, it is suggested, injuring the cow. The other machine is of a different character. The chamber in which the teat is enclosed is made with double walls, so that there is a space external to the milk pipe and kept distinct therefrom. The inner of these walls is flexible and fastens closely to the cow, while the outer is firm. In the chamber thus formed a vacuum is alternately created and destroyed independently of the vacuum in the milk pipe, which is continuous, and by this means the neck of the tube in contact with the cow pulsates to and fro with the changing pressure in the outside chamber. This, it is said, simulates the action of milking by hand, and thereby, it is alleged, better and more beneficial results are achieved than those reached by the single-chamber machine.

In both these classes of machines difficulty has been experienced in obtaining a steady flow of milk down the milk pipe, a difficulty which must always arise whenever an attempt is made to cause liquid to flow through a pipe leading from a source of supply shut off from atmospheric pressure. Various ingenious devices have been introduced to overcome this difficulty, and one in particular, taken out by Alexander Shields, 88188, 1897, has been referred to before their Lordships in this connection. This invention, however, relates solely to the apparatus of a single- and not of a double-chambered machine, and to such a process the appellant alleges that his invention has no application, his invention being, according to his contention, confined to the double-chambered system.

The learned Judges in the Supreme Court did not adopt this view, but, upon the whole, although the specification is by no means clear, their Lordships are prepared to accept the construction for which the appellant contends. Even upon this assumption, however, they think that the patent is invalid. The specification is very brief, and the description of the invention is given in the following terms:—

“ This invention consists of a certain improvement in pneumatic
 “ milking apparatus, in which there are separate pipes or passages for
 “ conveying the pulsations of the teat cups by which to draw the milk
 “ from the cow, and separate pipes or passages for conveying the milk
 “ to the receiver. Now, in order to facilitate the travel of the milk to
 “ the receiver I, I have found it advantageous to introduce a small

“ quantity of air into the milk passage 2. For this purpose I make a
 “ small air inlet either in the milk passage of the ‘claw,’ as at 3, or
 “ elsewhere in the milk passage, but preferably at the top of the teat
 “ cup, as at 4. This admission of air into the milk passage, as above
 “ described, allows the milk to flow freely without pain or discomfort.”

The claims which follow are in these words :—

“ 1. In pneumatic milking apparatus a small air inlet, formed in
 “ the milk passage between the mouthpiece and the receiver, substan-
 “ tially as and for the purpose set forth.

“ 2. In pneumatic milking apparatus having separate pipes or
 “ passages for the pulsations and for the milk respectively, a small air
 “ inlet for admitting atmospheric pressure behind the milk substantially
 “ as set forth.”

The diagram referred to in this specification clearly shows, and shows only, a machine of the double-chambered variety; and it is this fact which leads their Lordships to think that it is only to this class of machine that the invention was intended to apply. It will be observed that the specification refers to a hole made anywhere in the milk-passage, but preferably at the top of the teat-cup, and counsel for the appellant concentrated their argument upon the making of the air-passage at this spot. If the top of this cup did not fit closely to the cow, little or nothing whatever would be achieved by making a further air inlet, and the evidence makes plain what the circumstances themselves suggest, that in many cases such a connection is not established. Upon the view, however, that the top rim of the teat-cup was by some means fastened to the cow so closely as to exclude air, there would be a chamber of air between the highest point of attachment and the place where the inner india rubber tube, which formed the mouthpiece of the milk-tube, fastened on to the cow. It was into this chamber that the small hole, designated as hole “ 1,” admitted the air. Evidence was furnished to establish the fact that the air thus admitted passed with the pulsating of the walls of the inner chamber down into the milk-tube, thus creating sufficient atmospheric pressure to cause the milk to flow, and by the soothing action of the air current encouraging the flow of milk from the cow.

Upon the assumption which their Lordships have made in favour of the appellant upon this point, it may be accepted that advantage is caused by a small hole in the position indicated as No. 4, and, if the appellant had selected this spot as the spot at which the admission of air would facilitate the process of milking and confined it to machines where the upper connection with the cow made an air-tight joint, there might have been a good subject-matter for the patent. But, in fact, the specification does nothing of the kind. It is expressly stated that the air inlet may be made in the milk passage of the “claw,” where the tubes leading to the vacuum chamber are connected with the pipes leading to the cow, or

elsewhere in the milk passage; and the first clause of the claim seeks to protect a small air inlet formed anywhere in the milk passage between the mouthpiece and the receiver. Such a claim amounts to nothing more than this: that in order to obtain the free passage of liquid down a pipe from the top of which air is excluded, it is desirable to make a small hole in the pipe so that sufficient air may be introduced to enable the liquid to flow.

There is, in their Lordships' opinion, no subject-matter whatever in such an invention. It merely amounts to applying to a milking apparatus a perfectly well-known physical law, accomplished by the oldest and simplest method. If the upper attachment were air-tight, their Lordships think there would be force in the statement of his Honour the Chief Justice when he said that "if the second claim had stood alone, and especially if the exact part for the air inlet had been fixed at the top of the teat cup, the patent would have been valid," but no such limitation is to be found anywhere in the specification, and this fact is, in their Lordships' opinion, alone sufficient to dispose of this appeal.

Their Lordships will therefore humbly advise His Majesty that this appeal should be dismissed with costs.



In the Privy Council.

ALEXANDER GILLIES

v.

THE GANE MILKING MACHINE
COMPANY (LIMITED).

DELIVERED BY
THE LORD CHANCELLOR.

PRINTED AT THE FOREIGN OFFICE BY G. R. HARRISON.

1916.