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PRODUCTS LIABILITY — PROBLEMS PERTAINING TO PROOF OF NEGLIGENCE*

by

Page Keeton**

I. INTRODUCTION

THE problems related to proof of negligence on the part of the manufacturer or assembler of products depend in large part on the ground of negligence relied upon by the claimant. For convenience, problems of proof of negligence are discussed herein with reference to two separate and distinct general grounds of negligence. The first is that although the product is exactly as it was intended to be, the manufacturer was negligent either in selling such a product at all in its intended condition or in failing to give (1) adequate warning about the dangers involved in its use or misuse or (2) adequate instructions to avoid such dangers. The second ground of negligence arises in situations in which the claim is that a miscarriage in the manufacturing process brought about a condition of the product that was not intended, and that this unintended condition caused the product to be defective and unreasonably dangerous.

Negligence is by definition conduct involving an unreasonable or undue risk of harm. There must be, therefore, both a "risk of danger" and a risk that is "undue or unreasonable." When the term "risk of harm" is used, it is meant that an event causing harm was foreseeable or anticipative. Therefore, there must be proof of both (1) danger in fact and (2) foreseeable danger. In proving negligence, often it is not necessary for plaintiff to introduce evidence of the dangers involved in a given course of conduct because the dangers can be regarded as matters of common knowledge. But this is frequently not the case with respect to scientific knowledge related to the dangers involved and those that should have been anticipated in the use of products.

II. INADEQUACY OF WARNING OR INSTRUCTIONS AS A GROUND OF NEGLIGENCE

In view of what has just been said, if the ground of negligence alleged against a manufacturer is a failure to give adequate warning

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about the dangers involved or adequate instructions to avoid such dangers, the scientific knowledge in existence at the time of sale about the dangers involved in the use or misuse of a product and the accessibility of this knowledge to the manufacturer are of vital importance. It is often, therefore, of fundamental importance on the issue of the negligence of a manufacturer or other seller to consider (1) what is scientifically knowable, (2) what he actually knew at the time of sale and (3) what he is to be charged with knowing under our objective theories of negligence.¹

These questions arise most often and indeed quite frequently in cases involving drugs, cosmetics and other chemical products simply because most chemical products can and sometimes do bring about unintended side effects. Regardless of how beneficial and desirable a particular drug or cosmetic might be and even though no method is known to make it safer for use than it already is, some people will be allergic to an ingredient contained in it, or at least sensitive to it on some occasions; tragic and serious harm occasionally results from the use thereof even if utmost care has been exercised.²

In all such cases, subjecting the manufacturer to liability for harm caused to a particular plaintiff on the basis of negligence requires the following findings: (1) that a casual connection in fact existed between a condition or an ingredient of the product and the harm suffered; (2) that it was a known scientific fact at the time of sale that such harm could occur from such a condition, or if not known, that it was a discoverable scientific fact; (3) that the manufacturer ought in the exercise of reasonable care to have known or discovered this fact prior to the sale of the product; and (4) that a reasonable man either would have taken greater precautions to warn about the dangers or would have given safer instructions regarding the method of use. The last three findings must exist to have unreasonably dangerous conduct.

Of course, evidence sufficient to justify such findings must be introduced by the plaintiff. Therefore, he must introduce (1) evidence of what the ingredients actually were and that could be harmful and (2) evidence (of some character other than merely harmful following use of the product) that a particular ingredient therein could, as a scientific fact, have caused the injury. The first problem

¹ See Edgerton, *Negligence, Inadvertence, and Indifference; the Relation of Mental States to Negligence*, 39 Harv. L. Rev. 849 (1926); Seavey, *Negligence—Subjective or Objective?*, 41 Harv. L. Rev. 1 (1927).

² For example, a recent California case involved the development of serious and severe anemia following the administration of chloromycetin. *Love v. Wolf*, 38 Cal. Rptr. 183 (Dist. Ct. App. 1964).

of importance is whether or not such evidence will be sufficient to justify a jury finding of casual connection and also an inference by the jury of negligence. A recent illustration of this problem involved a severe case of dermatitis resulting from the use by the plaintiff of a spray deodorant called "Etiquet," which contained aluminum sulphate.³ About the only evidence introduced was expert testimony by physicians that some few people were sensitive or allergic to aluminum sulphate. This evidence was regarded by a New York appellate court as insufficient to serve as a basis for determining whether or not the manufacturer's conduct was reasonable. The predication of liability on negligence, as the court observed, requires evidence from which a finding can reasonably be made that harm was foreseeable and that the probable frequency and seriousness of such harmful consequences were such as to require the taking of precautions which the manufacturer did not take to satisfy the requirements of reasonableness. Whatever the rule might be with respect to warranty liability—and this has been one of the issues in some of the cigarette cases involving lung cancer⁴—it is clear that there cannot be negligence in failing to anticipate harm unless the scientific danger involved in the use of a product was known or ought to have been known by the manufacturer at the time of sale.

The court in the *Etiquet* case concluded that the plaintiff should have produced evidence showing the percentage of the population that is allergic to aluminum sulphate and the defendant's opportunity to ascertain this information. There may or may not have been scientific evidence available as to the number who are allergic or sensitive to aluminum sulphate, but at least the court held that without evidence of this character, negligence in failing to warn will not be inferred merely from the fact that an infinitesimal few were affected. Moreover, the court did not say when a manufacturer should be charged with knowledge about the extent of the danger involved or when the extent of such danger is scientifically known; it did say however, that if no evidence regarding the extent of this danger is produced, scientifically there is an insufficient basis for a finding of negligence by the trier of fact. Thus, even though defendant may be charged with knowledge of the current scientific literature, the plaintiff is not relieved from the burden of showing that a danger in fact existed which is a sufficient basis for finding negligence.

³ *Kaempfe v. Lehn & Fink Prods. Corp.*, 21 App. Div. 2d 197, 249 N.Y.S.2d 840 (1964).

⁴ See, e.g., *Lartique v. R. J. Reynolds Tobacco Co.*, 317 F.2d 19, (5th Cir.), cert. denied, 375 U.S. 865 (1963); *Pritchard v. Liggett & Meyers Tobacco Co.*, 295 F.2d 292 (3d Cir. 1962).

In a case involving the same kind of a product, however, the Court of Appeals for the Second Circuit held that similar evidence was sufficient to support a finding of negligence.⁵ In that case, the plaintiff had suffered injuries resulting from the use of a deodorant called "Arrid." There was evidence that a certain number of people were allergic to the aluminum sulphate used in the product. The trial court concluded that there was no negligence as a matter of law because of the statistical infrequency of injury, but the court of appeals reversed. Although the evidence did appear to be somewhat better than that presented in the *Etiquet* case, the court seemed to hold that however statistically infrequent it is that harmful consequences follow, plaintiff has introduced sufficient circumstantial evidence as soon as he shows even a small percentage of users may be harmed. It is then defendant's responsibility to attempt to justify his actions to the jury.

A. Safety History

Often there may be very little known about the frequency of side effects and allergic reactions from a certain product. But if the product has beneficial purposes, it would normally be reasonably safe conduct as a matter of law to dispense such product until, on the basis of experience, a greater amount of information becomes available. Indeed, some products have been removed from the market after a period of marketing. What about, therefore, the admissibility of experience history? For the most part, this question is being raised but not answered.⁶

It appears that courts often have refused to hear evidence of safety history on the ground that it constitutes a collateral inquiry, especially if *plaintiff* attempts to introduce evidence of other accidents to show the dangerous nature of the conduct in question. This is a rather strong argument in situations in which the dangerous character of the product can be ascertained by experimentation without reference to the frequency of occurrence. In the case of hair spray, for example, experimentation would disclose the danger. In *Hardman v. Helene Curtis Indus., Inc.*,⁷ however, *defendant* was allowed to introduce evidence of the safety history of its product. Plaintiff, a fourteen-year old girl, used a hair spray called "Lanolin Discovery." While spraying her hair, she got some of the preparation on the

⁵ *Wright v. Carter Prods., Inc.*, 244 F.2d 53 (2d Cir. 1957).

⁶ Some years ago Clarence Morris wrote an article on the general subject of the admissibility of evidence of safety history. Morris, *Proof of Safety History in Negligence Cases*, 61 Harv. L. Rev. 205 (1948).

⁷ 48 Ill. App. 2d 42, 198 N.W.2d 681 (1964).

upper part of her dress. Shortly thereafter the upper part of her dress and her hair caught on fire as, according to the evidence, she was carrying a candle in front of her. In this case, despite plaintiff's objection, the defendant was permitted to present in evidence information showing that despite the sale of 11,223,263 cans of Lanolin Discovery over a period of more than six years, no complaints had been received except that filed by the plaintiff in this case. The court concluded that such evidence was admissible to show excusable ignorance of the flammable nature of the product.

It would appear that as regards allergic reactions and side effects of drugs, evidence as to frequency of harm from a particular product ought to be admissible from *both* litigants if there is no scientific literature on or the experts have no notions about the number of persons who might be allergic to a given substance. As in other kinds of accidents, much would seem to depend upon the availability of other or better evidence as to (1) the danger in fact and (2) the opportunity that defendant had to discover it. Defendant can argue with considerable force that evidence by plaintiff of a few instances of allergic reactions should be inadmissible unless there is some showing that these cases were made known to the defendant, or unless the examples got into the scientific literature on the subject.

B. *Scientific Literature*

Information about the dangers of ingredients used in chemical products is often available in scientific literature. Recent cases make it clear that a manufacturer is not to be judged simply on the basis of what he knows and what manufacturers generally know. Rather he is often expected to know at least what an investigation of the scientific literature will disclose; *i.e.*, he must keep reasonably abreast of scientific information. There are three possible positions to take with respect to this matter: First, the manufacturer should be charged as a matter of law with the scientific knowledge; second, there should be a presumption that he ought to have such knowledge; and third, there should be only an inference that he should have such knowledge.

It appears that generally the second alternative has been adopted, because the manufacturer has apparently been charged with knowing as a matter of law any scientific fact about the dangerous properties of his product unless he comes forward with some evidence to rebut a presumption that he should have known it. Thus, in one case no evidence was introduced at the trial by either the plaintiff or defendant except that the inhalation of beryllium was dangerous and

that inhalation of some beryllium could be expected from the use that would be made of glass tubing supplied by the defendant. The First Circuit said:

Thus, once a plaintiff establishes in a Massachusetts court that a manufacturer-defendant's product is dangerous in its ordinary use, and that no warning of its danger was given, a presumption of the defendant's knowledge of the danger arises, and this presumption with, of course, proof of causation and injury, completes the plaintiff's *prima facie* case. Hence in Massachusetts it is up to a manufacturer-defendant to come forward, if it can, with exculpatory evidence of its faultless ignorance of the dangers of its product to those who might use it.⁸

It must not be assumed from this statement that a presumption or an inference of a product's dangerous condition will be drawn simply from a showing that an injury was suffered simultaneously with use. However, if expert evidence is actually introduced that a condition of the product was dangerous, a presumption or inference may often be indulged that the manufacturer should have been aware of it. Presumption is used here to mean that if defendant introduces no evidence to excuse his ignorance of the scientific literature, the jury must find that his ignorance was inexcusable. Inference as used here means that the jury may find ignorance is inexcusable, but is not required to do so.

Several recent cases show to what lengths the manufacturer's investigation must extend in order to escape a finding of negligence. In a Missouri case,⁹ plaintiff, a housewife, contracted an extremely rare and usually fatal malady called "allergic periarteritis nodosa." Plaintiff's theory was that the disease was traceable to a toxic ingredient in defendant's hair dye, a coal-tar derivative called paraphenylenediamine, and on this theory she obtained a judgment in the trial court for \$85,000 that was affirmed on appeal in all respects except as to the amount. There was evidence that about ninety-five per cent of all hair dyes contain this ingredient and that only about three to four per cent of all users ever become sensitive to it. The negligence alleged was the manufacturer's failure to give proper warning of a possible systemic allergic reaction that might develop after continued exposure. The trial court permitted plaintiff's dermatologist to introduce a list of twenty-three articles from *Cumulative Index Medicus*. One article was in a French journal, and another was written in Finnish. It should be noted, however, that defendant's

⁸ *Sylvania Elec. Prods., Inc. v. Barker*, 228 F.2d 842, 848-49 (1st Cir. 1955), *cert. denied*, 350 U.S. 988 (1956). See also *Wright v. Carter Prods., Inc.*, 244 F.2d 53 (2d Cir. 1957); *Carter v. Yardley & Co.*, 319 Mass. 92, 64 N.E.2d 693 (1946).

⁹ *Braun v. Roux Distrib. Co.*, 312 S.W.2d 758 (Mo. 1958).

objection was directed only to the use of any of this scientific literature as evidence, and apparently no separate and particular objection was made to the introduction of the French or Finnish articles.

Two conclusions can be drawn from this Missouri case. The first is that scientific literature is admissible as evidence bearing on the extent of the manufacturer's investigation, and the second is that a jury can conclude that a reasonable investigation would have disclosed the information in the scientific literature. The jury can find, in other words, that a reasonable investigation necessarily includes an examination of the scientific literature, and that a manufacturer may be expected to learn more than what is ordinarily known even by specialists. It might be argued that these requirements constitute an unrealistic objective standard as to knowledge. But the theoretical explanation for charging the manufacturer with even greater knowledge than that known by the ordinary specialist, and greater knowledge than even manufacturers of his kind have, lies in his failure to take proper precautions to discover the dangers involved in the use of a product before undertaking the sale thereof. The issue is an ethical one, and an objective standard of ordinary care is applied by the trier of fact to ethical issues.

In another recent case from Missouri, *La Plant v. E. I. du Pont de Nemours & Co.*,¹⁰ the defendant manufactured a product called "Ammate X," a weed-and-brush killer. It was sold by a dealer to a drainage district for use along a drainage ditch to kill some willow trees. Plaintiff brought suit for the loss of cattle due to their eating willow leaves sprayed with the product. The negligence alleged was the manufacturer's representation that "Ammate X" was not hazardous to livestock. The drainage district relied on the representation and advised ranchers that there was no such danger.

When plaintiff's cattle began to die, veterinarians tried to make a diagnosis and were unable to do so. The cause of death was thought at first to be arsenic poisoning. Finally, a veterinarian concluded that death could be from nitrate poisoning. He then took dead willow leaves found in cows and had them examined by a chemist, and the presence of nitrates was verified. The experts all agreed that the product sold was not toxic in its original state, but that when sprayed on vegetation the resulting chemical reaction produced nitrates as the leaves died. Not even the veterinarians suspected the cause for some time, but the court permitted a chemist to read from a textbook used in agriculture classes on "Feeds and Feeding" wherein the statement was made that "plants injured by 2-4-D or other weed killers may

¹⁰ 346 S.W.2d 231 (Mo. Ct. App. 1961).

have dangerous amounts of nitrates.'"¹¹ The chemist also was allowed to read from a veterinarian's manual. The court said that the manufacturer is to be held to the skill and knowledge of an expert; is to be charged with superior knowledge of the nature and quality of its products; and is obliged to keep abreast of scientific information, discoveries and advances with respect thereto.

In *Gielskie v. State*,¹² plaintiff became paralyzed following an injection by a young physician of a tetanus antitoxin manufactured by the State of New York. In the instructions for the use of this antitoxin first issued in 1941, the statement was made that "the intraspinal and intravenous methods are generally recognized as far superior to the intramuscular for the initial injections.'"¹³ Evidence was introduced from doctors to show that in the years which had elapsed between 1941 and 1954, medical opinion had changed and that in 1954 the great weight of authority condemned the intravenous method which the young doctor had used. Rejecting the argument that the doctor's act was an independent intervening cause breaking the chain of causation, the court held that the manufacturer-distributor was chargeable with knowledge of the medical advances that had been made since 1941. The court also added the statement that there was ample testimony to the effect that the medical profession customarily relies on instructions which accompany drugs and serums.

C. Proof Of Causation In Fact

With respect to proof of causation, there is a fundamental difference between negligence in the sale of a defective product and negligence in failing to give adequate warning or instructions about the dangers of a good product. Proof by plaintiff that his harm actually flowed from an ingredient in a product that ought not to have been marketed at all establishes, of course, casual connection between negligence in the sale of a product and plaintiff's harm, but the same is not true if the ground of negligence relied upon is inadequacy of the warning or instructions. As the court said in *Love v. Wolf*,¹⁴ however negligent a drug manufacturer may be in his overpromotion of a drug or in his failure to give adequate warning, he is not liable if the drug is one usable only by prescription of a doctor and if the overprescription was not caused by the overpromotion.

Evidence bearing on the likelihood of reliance on a warning if it

¹¹ *Id.* at 240.

¹² 18 Misc. 2d 508, 191 N.Y.S.2d 436 (Ct. Cl. 1959).

¹³ 191 N.Y.S.2d at 440.

¹⁴ 38 Cal. Rptr. 183 (Dist. Ct. App. 1964).

had been given is relevant both to the issue of whether there was negligence in failure to warn and to the issue of whether such failure, if negligence, was a cause of the harmful consequences.¹⁵ This dual problem was recognized in a recent Texas case¹⁶ involving an antibiotic reaction of calves to a serum. The alleged negligence was the failure to warn that certain antidotes should be given in case of a severe reaction. The defendant argued that the plaintiff had not read anything on the label and would not have been advised of any danger even if a warning had been given, but the court said: "The court [or jury] could have reasonably concluded that during the time this medicine was used by Mr. Branch, if there had been a proper warning, Mr. Branch would have learned of it and acted accordingly."¹⁷

Here, the court does not conclude as a matter of law that the failure to warn either was or was not established to be the factual cause, but rather permits the trier of fact on the basis of the evidence to conclude that the warning would have been heeded. This raises the serious question of what degree of probability must exist that the harm resulted from the alleged negligence before the case should be submitted to the jury. Courts have not agreed.¹⁸ Must plaintiff introduce some evidence which, if believed, would justify a reasonable person in concluding that it was more likely than not that defendant's failure to warn was the cause, or is it enough that there is a reasonable probability that a warning would have been heeded?

Perhaps the issue was not raised in the Missouri case involving the hair dye,¹⁹ but the court there seemed to assume that there would be liability if negligence were found by the jury in failing to warn and if the jury could justifiably find that the malady was traceable to the coal-tar derivative. Apparently the Missouri court would not require the plaintiff to introduce evidence showing that the harm probably would have been avoided if a warning had been given. Normally very little, if any, evidence can be brought to bear on the issue of what would have happened if proper notice had been given. There are three holdings that a court could make in a particular situation: First, causation can be presumed; second, causation can be left to the jury; and third, the evidence is insufficient to justify a finding of causation.

¹⁵ *Kaempfe v. Lehn & Fink Prods. Corp.*, 21 App. Div. 2d 197, 249 N.Y.S.2d 840 (1964); *Charles Pfizer & Co. v. Branch*, 365 S.W.2d 832 (Tex. Civ. App. 1963) *error dismissed*.

¹⁶ *Charles Pfizer & Co. v. Branch*, *supra* note 15.

¹⁷ 365 S.W.2d at 834.

¹⁸ See Malone, *Ruminations on Cause-in-Fact*, 9 Stan. L. Rev. 60 (1956).

¹⁹ *Braun v. Roux Dist. Co.*, 312 S.W.2d 758 (Mo. 1958), discussed in text accompanying and following note 9 *supra*.

III. NEGLIGENCE IN SALE OF DEFECTIVE PRODUCT

A. *The Use Of Res Ipsa Loquitur*

When plaintiff's theory is that his injury resulted from a defect in the product caused by a negligent miscarriage in the manufacturing process, the principal problem with respect to proof of negligence is the inability or impossibility in most instances of introducing direct evidence of an act or omission on the part of anyone in the manufacturing process that could be regarded as negligence. Thus, if plaintiff reaches the jury on the issue of negligence, he must be permitted to prove negligence through the application of the *res ipsa loquitur* doctrine or some other kind of circumstantial evidence.

The term *res ipsa loquitur* is often used to describe the only kind and any kind of circumstantial evidence of negligence that is to be recognized, but other courts regard it as a special kind but not the exclusive kind of circumstantial evidence for proof of negligence. These varying positions have been a source of some confusion and have brought about conflicting results, particularly if the requirements for the application of the doctrine are those so often regarded as necessary. For example, the assertion frequently has been made that the *res ipsa loquitur* doctrine is inapplicable as against a manufacturer to accidents occurring in the course of the use of its product, because at the time of the accident all the instrumentalities that more likely than not were the cause of the accident were not under the defendant's control. Thus, in a case involving the explosion of a water heater, it was said: "In the first place we believe those cases which hold that the facts of the occurrence warrant the inference of negligence even though the instrumentality is not under the physical control of the defendant at the time are limited principally to merchandise such as food and drinks marketed in sealed containers designed for human consumption."²⁰

It is submitted that few, if any, courts would follow this idea inexorably and without qualification, especially when there is direct evidence by an expert of a specific defect. In virtually all of the opinions in which language of this kind is used, the plaintiff was attempting to justify an inference of negligence against a manufacturer simply by showing that an accident did occur in the course of the use of a product for some unexplained reason. The fact that plaintiff's injury was received at a time when the product was out of the

²⁰ *Patrol Valve Co. v. Farrell*, 316 S.W.2d 92, 96 (Tex. Civ. App. 1959) *error ref. n.r.e.* See also *Haas v. Carrier Corp.*, 339 S.W.2d 727 (Tex. Civ. App. 1960) (explosion of heating unit); *Benkendorfer v. Garrett*, 143 S.W.2d 1020 (Tex. Civ. App. 1940) *error dismiss., judgm. cor.*

manufacturer's control is extremely important as regards an inference of negligence against the manufacturer. The nature of the accident in itself will not normally justify a finding that the accident was the kind that would not ordinarily occur without negligence on the part of the manufacturer. For example, evidence that a mechanic and body finisher was injured when an abrasive disc grinder manufactured by the defendant broke and struck the plaintiff was regarded as insufficient as matter of law.²¹ So also, proof by the plaintiff that he was injured by the escape of boiling water from a vaporizer manufactured by defendant was not, without evidence as to why the water escaped, a sufficient foundation for a finding of negligence.²² As was proved in the latter case, any supposition that the emission was the result of inherent defects resulting from the manufacturing process would be mere speculation and conjecture.

It may be fairly said, therefore, that an accident occurring in the course of the use of a product does not justify of itself the application of the *res ipsa loquitur* doctrine. Normally, a trial judge should not submit the issue of a manufacturer's negligence to the jury unless evidence has been introduced which, if believed, would justify a finding of greater likelihood than not that (1) the plaintiff's injury resulted from an accident attributable to a defect in the product, (2) the defect was probably present when the manufacturer relinquished control of the product and (3) the defect was of a kind that would not ordinarily be present in a product at the time of sale by the manufacturer in the absence of negligence.

B. Evidence Of A Defect In The Product

If the accident is not the kind of accident which in itself points to probable negligence of the defendant, then the question of vital importance upon which the courts have often disagreed concerns the kind of evidence that will be required as a basis for finding a defect from which an inference of negligence in causing the defect can be made. The requirement of direct evidence of an act or omission by a manufacturer that could be regarded as the cause of a defect would be manifestly unfair. As Judge Brown of the Fifth Circuit has emphasized, the oft-repeated requirement of exclusiveness of control is only another way of saying that the circumstances must point an accusing finger at the defendant.²³

1. *Specific Defect Identified by Expert Testimony* Sufficient cir-

²¹ *Jakubowski v. Minneapolis Mining & Mfg. Co.*, 42 N.J. 177, 199 A.2d 826 (1964).

²² *Wallace v. Knapp-Monarch Co.*, 234 F.2d 853 (8th Cir. 1956).

²³ *Ozark v. Wichita Manor, Inc.*, 252 F.2d 671, 675 (5th Cir. 1958). See also *Morris, Res Ipsa Loquitur in Texas*, 26 Texas L. Rev. 257, 263 (1948).

cumstantial evidence is presented when there is credible testimony by an expert to identify a specific defect, such as when an expert has examined the product after an accident and testifies as to why in his opinion a specific part of the product failed to function properly. Thus, in one case the court regarded as sufficient evidence by an expert that a brake cylinder was clogged with pieces of inner lining of the flexible brake fluid hose from the master cylinder and that such a condition would affect the proper functioning of the brakes.²⁴ In *Lewis v. United States Rubber Co.*,²⁵ involving a claim for injuries received when a tire blew out while being mounted on a wheel, plaintiff introduced expert evidence to show that an X-ray examination after the accident disclosed a severed wire bead incorporated in the fabric of the tire. The expert further testified that only a great force such as would leave a mark on the tire could have caused the breaking or the weakening of the suspect bead. Thus, this evidence was fairly reliable to show that the wire bead was defective prior to the explosion and caused the explosion, and it got the plaintiff to the jury.²⁶ This type of case is weak, however, if the handler or user at the time of the accident could have done something to cause the severance of the bead, and in this situation disagreement can be expected. The defective brake situation is a much better case of probable negligence because the defect was not one that misuse could likely have caused.

2. *Evidence by User of Malfunction* Direct evidence, for example, of a failure of some component part of a product to work properly is obviously not as reliable as is expert evidence of the existence of a defect based on an examination of a product following an accident. Nevertheless, evidence by the user of a malfunctioning of the product has been recognized by some courts as sufficient, especially where a product such as an automobile has been in use for only a short time. For example, testimony of brake failure has been regarded as sufficient for inferring a defect that likely was present when the product was surrendered by the manufacturer.²⁷ In *Henningsen*,²⁸ the celebrated New Jersey case that extended the doctrine of strict liability, the only evidence of a defect in an automobile that swerved

²⁴ *Standard Motor Co. v. Blood*, 380 S.W.2d 651 (Tex. Civ. App. 1964).

²⁵ 414 Pa. 626, 202 A.2d 20 (1964).

²⁶ See, however, *Shoopak v. United States Rubber Co.*, 42 Misc. 2d 684, 248 N.Y.S.2d 708 (Supt. Ct. 1964) (same kind of case, but the evidence was that plaintiff could not have mounted the tire off center and with insufficient lubrication).

²⁷ *Vandermark v. Ford Motor Co.*, 37 Cal. Rptr. 896, 391 P.2d 168 (1964); *Comstock v. General Motors Corp.*, 358 Mich. 163, 99 N.W.2d 627 (1959).

²⁸ *Henningsen v. Bloomfield Motors, Inc.*, 32 N.J. 358, 161 A.2d 69 (1960), noted in 39 Texas L. Rev. 694 (1961).

off the road and crashed into a brick wall was the testimony of the plaintiff herself. Without warning, she heard a loud noise "from the bottom, by the hood"; it "felt as if something cracked." The steering wheel then spun in her hands, and the automobile went out of control. It was impossible to determine after the accident whether any of the parts of the steering-wheel mechanism had been defective. The car had only 468 miles on the speedometer at the time. The trial court concluded that a prima facie case of negligence had not been established and dismissed the negligence count, but permitted the case to go to the jury on a warranty theory. Thus, the court permitted the inference of some unidentifiable defect but not an inference of negligence from that unidentifiable defect. Of course, in all these cases in which there is no expert evidence of an identifiable defect, there always exists the very definite probability that the whole truth about what happened at the time of the accident has not been told.

C. Inferring A Defect In The Product As The Cause Of The Accident

By Negating Other Probable Causes

In *Jakubowski v. Minneapolis Mining & Mfg. Co.*,²⁹ an abrasive disc grinder broke, and as a result part of it struck the plaintiff. Although the court denied recovery, it did recognize the possibility of proving negligence of the manufacturer by introducing evidence to negate probable causes of the accident (such as misuse or overuse) other than a defect in the product at the time the manufacturer surrendered possession thereof. The court said: "Accordingly, in the absence of direct evidence that the product is defective because of a manufacturing flaw or inadequate design, . . . *it is necessary to negate other causes.* . . ."³⁰

It is submitted that, outside the products liability area, negligence of a particular defendant cannot normally be established by introducing evidence of (1) an accident of a kind that does not normally occur without negligence of either the defendant or another and (2) careful conduct on the part of the other. Certainly, one who is injured in an automobile collision cannot get an inference of negligence against one of the drivers by introducing evidence of the careful conduct of the other, especially if he himself is one of the drivers. In many jurisdictions, however, this is precisely what has been allowed in cases involving injuries from bottle breakages or so-called bottle explosions, because usually responsibility for the breakage of a

²⁹ 42 N.J. 177, 199 A.2d 826 (1964).

³⁰ 199 A.2d at 830. (Emphasis added.)

bottle could rest on any of several different persons or legal entities, such as the manufacturer, the filler and the handlers of the bottle, including the person who was handling it at the time it broke or exploded. If proving negligence in this manner is to be permitted in products liability cases, some justification for it ought to be found.

Many courts have recognized that negligence may be inferred against the *filler* by showing careful conduct on the part of those handling the bottle subsequent to the filling thereof.³¹ Even where this method of proving negligence is recognized, the substance contained in the bottle, the nature and quantum of the evidence and its reliability as regards careful conduct on the part of all handlers other than defendant are quite important in determining whether or not in a particular case plaintiff has established a *prima facie* case. Four factors of importance are (1) the length of time between surrender of possession by defendant and the breakage, (2) the number of persons who could have had access to the bottle during that time, (3) the nature of the substance contained in the bottle and (4) the nature of the bottle.

In a recent Ohio case³² involving the breakage of a bottle containing pigs' feet, the court seemed to think that ordinarily an inference of negligence ought not to be indulged in against the packer or filler of a bottle unless some expansive or volatile substance was enclosed. However, it is submitted that in some of the bottle breakage and explosion cases, the facts point more likely than not to negligence of the filler even without evidence of careful conduct on the part of the handler at the time of the explosion. Thus, it would be quite consistent with other products cases and with the law generally to recognize the application of the *res ipsa loquitur* doctrine on a showing by the handler at the time of breakage that he was careful.³³

D. Liability Of Assemblers And Component-Part Manufacturers

Some of the component parts of most products are manufactured by persons or entities other than the final assembler or manufacturer of the finished product. This is true of airplanes, automobiles, water-heaters and the like. There has been much confusion as to the responsibility of an assembler who is not the actual manufacturer of the defective part. It has often been said that an assembler is liable

³¹ *Evangelio v. Metropolitan Bottling Co.*, 339 Mass. 177, 158 N.E.2d 342 (1959); *Ferrell v. Sikeston Coca-Cola Bottling Co.*, 320 S.W.2d 292 (Mo. Ct. App. 1959).

³² *Huggins v. John Morrell & Co.*, 176 Ohio St. 171, 198 N.E.2d 448, 453 (1964).

³³ See *Vassallo v. Sabatte Land Co.*, 212 Cal. App. 2d 11, 27 Cal. Rptr. 874 (Dist. Ct. App. 1963) (milk bottle broke as plaintiff was taking it to a refrigerator just after it had been delivered by defendant to the front door).

for all reasonably discoverable defects and that the assembler is not entitled to rely on the manufacturer of the component part, however reliable that manufacturer may be. Under this view, failure to inspect at all is negligence, but even under this theory there remains the further question of whether a reasonable inspection would have revealed the defect.³⁴ Often the only reasonable and practical way to operate is to rely on the component-part manufacturer, and the issue of what constitutes a reasonable inspection when none would ordinarily be made presents an almost unanswerable question.

A second view is that the assembler must be negligent in failing to inspect. Under this approach the question of whether he should have been able to rely on the manufacturer, plus the further question as to what the nature of the inspection should have been, is for the jury under the usual instruction that negligence is the failure to exercise ordinary care.³⁵

A third view is that, without regard to any personal negligence on its part, the assembler is liable for the negligence of the manufacturer of the component part, even if the defect was hidden and not discoverable. It is a type of strict vicarious liability. Certainly one of the most important cases on this basis for liability was *Ford Motor Co. v. Mathis*,³⁶ decided recently by the Fifth Circuit. The issue was the liability of Ford Motor Company for an accident resulting from a defective dimmer switch. Plaintiff was driving about fifty-five to sixty miles per hour on a straight stretch of highway when he threw on his dimmer switch. After the oncoming car had passed him, plaintiff hit the dimmer switch to return to bright lights, but the headlights went out altogether. The defect was clearly identified by an expert. The jury in the trial court found that Ford was not negligent in failing to discover the defect, because the defect was not discoverable by reasonable inspection. Citing the *Restatement of Torts*, section 400, which deals with the liability of a manufacturer who places on the market a product manufactured by another as his own, the court held that the assembler would be liable.³⁷ The Fifth Circuit said:

Though discerning industrialists or students of our economy should know that in each car as it rolls off the assembly line there is [sic]

³⁴ *Smith v. Peerless Glass Co.*, 259 N.Y. 292, 181 N.E. 576 (1932); *MacPherson v. Buick Motor Co.*, 219 N.Y. 382, 111 N.E. 1050 (1916).

³⁵ *DeFore v. Bourjois, Inc.*, 268 Ala. 228, 105 So. 2d 846 (1958) (defective perfume bottle; suit against perfume manufacturer).

³⁶ 322 F.2d 267 (5th Cir. 1963), noted in 18 Sw. L.J. 128 (1964).

³⁷ The 1948 revision of this section of the *Restatement* took this position, and a recent Texas case involving a defective brake cylinder has also adopted this result. *Standard Motor Co. v. Blood*, 380 S.W.2d 651 (Tex. Civ. App. 1964). See also *Boeing Airplane Co. v. Brown*, 291 F.2d 310 (9th Cir. 1961).

represented countless man hours of labor by workers scattered throughout hundreds of plants independently owned and operated, not even these sophisticated "men of distinction" would suppose that they were bargaining for a mobile assortment of nuts, bolts and moving parts which if well greased, coaxed and fueled would act like an automobile. . . . The purchaser does not distinguish between the manufacturer and the assembler.³⁸

E. *Res Ipsa Loquitur* And Joinder Of Two Or More Defendants

There is a growing body of law which would permit an injured party to show (1) that he was injured in the kind of accident that does not ordinarily occur without negligence, (2) that in the nature of things he could not have been responsible (or, if so, he introduces evidence of his careful conduct), and (3) that one or the other of two or more persons was in control of the product at some time, and then (4) join the several defendants in the same suit and get the case to the jury against each of the defendants on the issue of negligence. A leading case on this approach is *Dement v. Olin-Mathieson Chem. Corp.*³⁹ The case involved a suit by a driller's helper against several component-part manufacturers of a charge of dynamite that prematurely exploded during seismograph operations. The components were gelatine dynamite, a booster and an electrical blasting cap. One defendant was exonerated because of evidence introduced in his behalf, but the court reversed the trial court's action in excluding as a basis for recovery the use of the *res ipsa loquitur* doctrine against the other two defendants. The court said:

Nor is it necessary here that in order for *res ipsa* to apply one particular force must be severed out, identified and held as a matter of law to be the cause of the premature explosion. . . . Here from a physical standpoint the injury was caused by a combination of the three products. Where the consequences are so devastating and the risk to human life so great, manufacturers of products which are components designed to be used with other known products may not thus evade the responsibility to come in and explain. That is basically what the *res ipsa* doctrine requires.⁴⁰

This decision is somewhat novel, although a similar result has been reached in some of the bottle-explosion cases by joining the manufacturer and the filler.⁴¹

The acceptance of this principle eliminates the necessity of proving

³⁸ 322 F.2d at 274.

³⁹ 282 F.2d 76 (5th Cir. 1960).

⁴⁰ *Id.* at 82-83.

⁴¹ *Nichols v. Nold*, 174 Kan. 613, 258 P.2d 317 (1953) (ginger-ale bottle exploded); *Loch v. Confair*, 372 Pa. 212, 93 A.2d 451 (1953) (Pepsi Cola exploded; bottler, distributor and retailer joined).

an identifiable defect as a basis for an inference of negligence by a particular defendant, and its adoption would generally result in the imposition of liability on a non-negligent person, although it will never be known which one. It would appear that in this type of case if there is no evidence on the basis of which a reasonable person could conclude that one of the two was more likely to be negligent than the other, the only issue for the jury would be whether or not the accident was caused by negligence of someone. If so, the liability of each defendant would follow.