MANUFACTURER'S LIABILITY FOR NEGLIGENT DESIGN

Introduction and Scope[1]

The field of products liability has emerged so swiftly and extensively in recent years and has become so complex and variegated that it is now appropriate to separate the field into its various component areas, problems, and theories, and view them individually. It is here proposed, therefore, to examine only that very limited area of products liability wherein liability is sought to be imposed on the *manufacturer of a product because of his alleged negligence in designing the product.*[2] We will look briefly at the manufacturer's duty with respect to product design, then give more extensive consideration to some problems a plaintiff may face and to several defenses that might be raised in a product-design case. Finally, there will be an examination of two special problems present in most product-design cases: the Statute of Limitations and Conflict of Laws.

In approaching any product-design case, it must be borne in mind that there is a very significant difference between liability for negligent *construction* and liability for negligent *design.*[3] "Design" refers to the plan or concept of a product, whereas "construction" pertains to the execution of that plan.[4]

Although they are increasing yearly, decisions on a manufacturer's liability for negligent design are still relatively infrequent. In the very nature of things a product-caused injury is more likely to be traceable to some defect in the manner of construction or in the materials used than to a de-

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[1] See generally 1 FRUMER & FRIEDMAN, PRODUCTS LIABILITY § 7 (1960, Supp. 1964) (hereinafter cited as FRUMER & FRIEDMAN); Wilson, *Products Liability,* 43 CALIF. L. REV. 614, 809 (1955); Katz, *Liability of Automobile Manufacturers for Unsafe Design of Passenger Cars,* 69 HARV. L. REV. 863 (1956); *Symposium on Products Liability,* 24 TENN. L. REV. 787 (1957); James, *Products Liability,* 34 TEXAS L. REV. 44, 192 (1955); Noel, *Manufacturer's Negligence of Design or Directions for Use of a Product,* 71 YALE L. J. 816 (1962); Annot., 76 A.L.R.2d 91 (1961).

[2] There are, of course, several other bases for imposing liability on a manufacturer. As to liability in warranty, see 1 FRUMER & FRIEDMAN § 16; Annot., A.L.R.2d 913 (1952); Defense Research Institute, *Products Liability: Implied Warranty* (1964). As to liability for failure to warn, see 1 FRUMER & FRIEDMAN § 8; Annot., 76 A.L.R.2d 9 (1961); Dillard & Hart, *Product Liability: Directions for Use and the Duty to Warn,* 41 VA. L. REV. 145 (1955). As to liability for deceit, see 1 FRUMER & FRIEDMAN § 17.

Others in the distributive chain may also be held liable for a defective product. As to the liability of retailers, see 1 FRUMER & FRIEDMAN §§ 18-19; Annot., 76 A.L.R.2d 91 (1961). As to the liability of wholesalers and middlemen, see 1 FRUMER & FRIEDMAN § 20; Annot., 76 A.L.R.2d 91 (1961). As to the liability of manufacturers of component parts, see 1 FRUMER & FRIEDMAN § 9.

[3] See Maynard v. Stinson Aircraft Corp., U.S. Av. 71 (Mich. C.C., 1940), where the court said that negligent design involves improper planning, whereas negligent construction is carelessness in the actual building of the thing.

[4] By way of example, consider the history of the recently developed beer cans that do not require a separate opener but are opened by pulling on a tab affixed to the top of the can. When first developed, these tabs were manufactured by "stamping" them from a piece of stock metal. This process left a sharp edge on the tab which resulted in many lacerated thumbs. At this point, the possibility existed of an action for negligent *design.* When manufacturers became aware of the situation, they redesigned the tab with rounded edges, thus correcting their previously faulty design. At this point, if the machine which rounds the edges on the tabs should happen to malfunction and turn out tabs with sharp edges, the action would no longer be for negligent design but for negligent *construction* (or for failure to inspect).

ficiency in the design.[5] Even when the injury can be traced to some aspect of the product's design, an oft-times insurmountable problem still exists:[6] that of proving there was *negligence* in the design.[7]

A. Manufacturer's Duty.

The duty of the manufacturer with respect to design of a product is the traditional one of reasonable care.[8] The RESTATEMENT OF TORTS expresses the broad general rule thus:

> A manufacturer who fails to exercise reasonable care in the manufacture of a chattel which, unless carefully made, he should recognize as involving an unreasonable risk of causing substantial bodily harm to those who lawfully use it for a purpose for which it is manufactured[9] and to those whom the supplier should expect to be in the vicinity of its probable use, is subject to liability for bodily harm caused to them by its lawful use in a manner and for a purpose for which it is manufactured.[10]

Comment c to this section points out that "reasonable care" includes "the adoption of a formula or plan which, if properly followed,[11] will produce an article safe for the use for which it is sold . . . ."[12]

The manufacturer's duty is further delimited by section 398 of the RESTATEMENT:[13]

> A manufacturer of a chattel made under a plan or design which makes it dangerous for the uses for which it is manufactured[14] is subject to liability to others whom he should expect to use the chattel lawfully or to be in the vicinity of its probable use for bodily harm caused by his failure to exercise reasonable care in the adoption of a safe plan or design.[15]

This, of course, does not mean that the manufacturer is an insurer of plaintiff's safety.[16] Nor does the manufacturer have a duty to manufacture a

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[5] 76 A.L.R.2d 91, 94 (1961).

[6] Ford Motor Co. v. Wolber, 32 F.2d 18 (7th Cir. 1929), *cert. denied*, 280 U.S. 565 (1929); Davlin v. Henry Ford & Son, 20 F.2d 317 (6th Cir. 1927); Simmons v. Gibbs Mfg. Co., 170 F. Supp. 818 (N.D. Ohio 1959), *aff'd*, 275 F.2d 291 (6th Cir. 1960); Hatch v. Ford Motor Co. 163 Cal. App. 2d 393, 329 P.2d 605 (1958). See Campo v. Scofield, 301 N.Y. 468, 95 N.E.2d 802 (1950).

[7] Noel, *Manufacturer's Negligence of Design or Directions for Use of a Product*, 71 YALE L.J. 816, 818 (1962).

[8] United States Fid. & Guar. Co. v. Brian, 337 F.2d 831 (5th Cir. 1964); Mann v. Cook, 190 N.E.2d 676 (Mass. 1963); Bernstein v. Remington Arms Co., 16 App. Div. 2d, 694, 227 N.Y.S.2d 802 (2d Dept. 1962); Annot., 76 A.L.R.2d 91, 94 (1961).

[9] See text accompanying notes 64-72, *infra*.

[10] 2 RESTATEMENT, TORTS § 395 (1934).

[11] If the formula or plan is not "properly followed", the problem is one of negligent *construction* rather than one of negligent *design*. See notes 3 and 4 and accompanying text, *supra*.

[12] 2 RESTATEMENT, TORTS 1074 (1934).

[13] *Id.* § 398.

[14] *Cf.* text accompanying notes 64-72, *infra*.

[15] As pointed out in Comment *a* to § 398, this is merely a special application of the general rule stated in § 395.

[16] Calkins v. Sandven, 129 N.W.2d 1 (Iowa 1964); Johnson v. Kinney, 232 Iowa 1016, 1027, 7 N.W.2d 188, 194, 144 A.L.R. 997, 1006 (1942).

Compare 2 RESTATEMENT, TORTS § 402 (1934), which imposes strict liability upon the seller of a product under most circumstances, with Greenman v. Yuba Power Prod., 59 Cal. 2d 57, 27 Cal. Rptr. 697, 377 P.2d 897 (1962) and Vandermark v. Ford Motor Co., 37 Cal. Rptr. 896, 391 P.2d 168 (1964). In the *Greenman* case the plaintiff had purchased from a retailer a power tool manufactured by defendant. Plaintiff was injured when a piece of wood flew out of the machine, while it was being used as a lathe, and struck plaintiff on the forehead. In holding the manufacturer to strict liability in tort, the court said, 59 Cal. 2d at 62, 64, 27 Cal. Rptr.

product that is accident-proof or fool-proof.[17] The manufacturer does, however, have a duty to so design his product that it will stand up to any emergency use that can be reasonably anticipated.[18] The 6th Circuit has established the following test: "[The manufacturer's] duty was to use reasonable care in employing designs . . . which would fairly meet any emergency of use which could resonably be anticipated."[19]

Perhaps the final, though none too definitive, answer to the question of the manufacturer's duty lies with that familiar tort personage the "reasonable and prudent man." Thus, as one court said: "The question of liability should be approached from the standpoint of the standard of care to be exercised by the reasonably prudent person in the shoes of the defendant manufacturer . . . ."[20]

B. Plaintiffs' Problems.

Res Ipsa Loquitur

It may very well be that the plaintiff will wish to include in his petition a count based on the doctrine of *res ipsa loquitur*. This requires a showing that (1) the injury was caused by an instrumentality under the exclusive control of the defendant, and (2) the occurrence was such as in the ordinary course of things would not happen if reasonable care had been exercised.[21] In the ordinary negligence case the defendant will be in possssion of the instrumentality involved at the time of the occurrence. In an action against a manufacturer, however, it is more probable that the instrumentality will have long since left the hands of the defendant and will not be under its exclusive control at the time of the injury. This was the point raised in *Thompson v. Burke Engineering Co.*[22] The plaintiff was injured when a portion of a restaurant ceiling fell on her. The ceiling had been installed by the defendant thirteen months prior to the mishap. In count one of her petition, plaintiff relied on the doctrine of *res ipsa loquitur*. The defendant pointed out that it was not in exclusive control of the ceiling at the time it fell and, therefore, contended that the doctrine was not applicable. The trial court granted defendant's motion to dismiss the *res ipsa loquitur* count in

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at 700, 701, 377 P.2d at 900, 901: "A manufacturer is strictly liable in tort when an article he places on the market, knowing that it is to be used without inspection for defects, proves to have a defect that causes injury to a human being . . . . To establish the manufacturer's liability it was sufficient that plaintiff proved that he was injured while using the Shopsmith in a way it was intended to be used as a result of a defect in design . . . of which plaintiff was not aware that made the Shopsmith unsafe for its intended use." In the *Vandermark* case, *Greenman* was reaffirmed and extended by holding that the manufacturer of a completed product cannot escape the imposition of strict liability in tort by proving that the manufacturer of a component part was responsible for the defect.

17 Campo v. Scofield, 301 N.Y. 468, 95 N.E.2d 802 (1950). See Hatch v. Ford Motor Co., 163 Cal. App. 2d 393, 329 P.2d 605 (1958); Blissenbach v. Yanko, 90 Ohio App. 557, 107 N.E.2d 409 (1951).

18 Davlin v. Henry Ford & Son, 20 F.2d 317 (6th Cir. 1927). See Lindroth v. Walgreen Co., 338 Ill. App. 364, 87 N.E.2d 307 (1949); Ledet v. Lockport Light & Power Co., 15 La. App. 426, 132 So. 272 (1931).

19 Davlin v. Henry Ford & Son, *supra*, note 18, at 319. See also Annot., 76 A.L.R.2d 91, 95 (1961): "This [the manufacturer's duty], it has been indicated, includes a duty to design the product so that it will fairly meet any 'emergency of use' which can be reasonably anticipated."

20 Smith v. Atco Co., 6 Wis. 2d 371, 383, 94 N.W.2d 697, 704 (1959).

21 *E.g.*, Thompson v. Burke Engineering Sales Co., 252 Iowa 146, 106 N.W.2d 351 (1960); Eaves v. City of Ottumwa, 240 Iowa 956, 38 N.W.2d 761, 11 A.L.R.2d 1164 (1949).

22 Note 21, *supra*.

plaintiff's petition. In reversing, the Iowa Supreme Court stated:

> [T]here is a growing number of decisions which apply the rule where defendant was in exclusive control of the instrumentality at the time of the alleged negligent act, although not at the time of the injury, *provided* plaintiff first proves there was no change in the condition of the instrumentality after it left defendant's control which could reasonably have caused the injury. (Emphasis by the court.)[23]

The Court also made the following quotation[24] from a Kansas case:[25] "The real test is whether defendants were in control at the time of the negligent act or omission which either at that time or later produced the accident."[26]

The emergence of the so-called "multiple *res ipsa loquitur* rule" has been a rather recent development in this area. It involves a situation in which all the requirements for the application of the doctrine are present but with the added factor that the plaintiff cannot identify which of several defendants was guilty of negligence.[27] Nevertheless, courts seem to agree that plaintiff is entitled to the benefit of the doctrine.[28] Judge Graven states that the rule "would seem to be that if the plaintiff makes a showing that negligence might be inferred against two or more defendants under the res ipsa loquitur rule it is the duty of each defendant to come forward with evidence that he or it was not the guilty one."[29]

Service of Process

Aside from the familiar problem of whether or not a corporate defendant is "doing business" within the state, and is thus amenable to process, the possibility exists of obtaining service upon a non-resident who commits a tort within the state.[30] This raises the question of whether a non-resident manufacturer has committed a tort within the state merely because his negligently designed product causes injury within the state. The Illinois Court was faced with this problem, under a statute similar to Iowa's,[31] in *Gray v. American Radiator & Standard Sanitary Corp.*[32] It there appeared that Titan Valve Manufacturing Co., an Ohio corporation, manufactured safety valves for hot water heaters assembled outside Illinois by American Radiator. One of the heaters exploded in Illinois because of a defective valve. Plaintiff obtained service on Titan under the aforementioned statute. The trial court dismissed plaintiff's claims as to Titan. In reversing, the Illinois supreme

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[23] 252 Iowa at 150, 106 N.W.2d at 353.

[24] *Id.* at 150, 106 N.W.2d at 354.

[25] Nichols v. Nold, 174 Kan. 613, 258 P.2d 317 (1953).

[26] *Id.* at 620, 258 P.2d at 323.

[27] See, *e.g.*, Dement v. Olin-Mathiesen Chem. Corp., 282 F.2d 76 (5th Cir. 1960); Ybarra v. Spangard, 25 Cal. 2d 486, 154 P.2d 687, 162 A.L.R. 1258 (1945).

[28] *Ibid.*

[29] Address by Hon. Henry N. Graven, Judge, N.D. Iowa, "Some Questions and Problems in Connection with Products Liability Litigation", at the Iowa Judges' Conference, Sioux City, Iowa, June 23, 1964.

[30] In many states the commission of the tort may amount to appointment of some state official as an agent of the non-resident tort-feasor for service of process. *E.g.*, IOWA CODE § 617.3 (1962), as amended by Iowa Laws c. 325 (1963), which is being further amended in the 61st General Assembly, by H. F. 551.

[31] ILL. REV. STAT. c. 110, § 17 (1963), which provides in part: "Any person, whether or not a citizen or resident of this State, who in person or through an agent does any of the acts hereinafter enumerated, thereby submits said person . . . to the jurisdiction of the courts of this State as to any cause of action arising from the doing of any of said acts: . . . (b) The commission of a tortious act within this State; . . . ."

[32] 22 Ill. 2d 432, 176 N.E.2d 761 (1961).

court held that although only the consequences of an Ohio wrong occurred in Illinois, the place of the wrong is where the last event necessary to rendering the actor liable occurs, and that an act is not "tortious" until injury results.[33]

Minnesota has twice been faced with the problem of whether its single-act "long-arm" statute[34] will reach a foreign corporation that has no contacts within the state except the injury caused by its defective product. The Minnesota statute is very similar to the Iowa statute in that it is predicated on a tort "committed in whole or in part within the State."[35] Based on this statute, the trial court, in *Atkins v. Jones & Laughlin Steel Corp.*,[36] denied the foreign corporation's motion to quash service and dismiss the action, stating its reason as follows:

> [T]he principal act of negligence occurred in the making and sealing of the container; that occurred in an eastern state. However, a mere failure to exercise reasonable care is not a tort. It only becomes a tort actionable as such when someone is injured as a proximate result of the negligent act. Damage is an essential element of the cause of action. * * * [T]he plaintiff was injured . . . in this state. It is the opinion of the court that the tort occurred therefore in part in Minnesota.[37]

In affirming, the Minnesota Supreme Court quoted the above language and held that the defendant was subject to the jurisdiction of the Minnesota courts because "the last event essential to its tort liability — the injury of plaintiff — occurred" in Minnesota.[38]

The same problem arose two years later in *Ehlers v. U.S. Heating & Cooling Mfg. Co.*[39] Again the Minnesota Supreme Court affirmed an order refusing to quash service of process and to dismiss, for the reasons stated in the *Atkins* case.[40]

The most recent Iowa case involving this problem[41] arose prior to the 1961 amendment to section 617.3.[42] The Court expressed doubt as to whether the tort was committed in whole or in part in Iowa merely because the injury occurred here; however, it expressly refused to decide the point since the statute had no retroactive application.[43]

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[33] Id. at 434, 176 N.E.2d at 762.
[34] MINN. STAT. ANN. § 303.13(1), (3) (Supp. 1964).
[35] *Ibid.*
[36] 258 Minn. 571, 104 N.W.2d 888 (1960).
[37] *Id.* at 575, 104 N.W.2d at 891.
[38] *Id.* at 579, 104 N.W.2d at 893.
[39] 124 N.W.2d 824 (Minn. 1963).
[40] 124 N.W.2d at 827.
[41] Hill v. Electronics Corp. of America, 253 Iowa 581, 113 N.W.2d 313 (1962).
[42] Iowa Laws c. 287 (1961).
[43] 253 Iowa at 589, 113 N.W.2d at 318. A decision should be forthcoming shortly, as this precise point is the only one raised on appeal in Andersen v. National Presto Industries, now before the Court. *Cf.* Great Atl. & Pac. Tea Co. v. Hill-Dodge Banking Co., 255 Iowa 272, 122 N.W.2d 337 (1963), in which a large number of checks without sufficient funds were "floated" in Iowa with the knowledge of the defendant (a foreign banking corporation not authorized to do business in Iowa). Plaintiff, a foreign corporation authorized to do business in Iowa, brought an action for damages and obtained service under § 617.3. The Court held the tort was partially committed in Iowa, and defendant was therefore amenable to service under the section, because: "[c]ashing the checks in Iowa was an integral part of the tort with which defendant is charged." 255 Iowa at 280, 122 N.W.2d at 341.

Regardless of how this problem is eventually resolved, section 617.3 is not a plaintiff's panacea. The Iowa Supreme Court very recently pointed out that the term "nonresident," as used in the section means a person who was such *at the time of the tort;* it does not include a person who was a resident at the time of the tort but who subsequently left the state.[44]

C. Defenses.

Several defenses are available to the manufacturer charged with having negligently designed a product. Some of them, such as contributory negligence and improper use of the product by the plaintiff, are true defenses. Others, such as prior use of the same or a similar design, are not true defenses but evidentiary matter tending to negate negligence.

Prior Use of Same or Similar Design by Defendant or Others

A showing by the defendant-manufacturer that he has used a particular design for a long time, or on an extensive scale, tends to negative defectiveness of design.[45] As one court put it, "the longer a machine has been in use before it fails the more unlikely it is that the failure was due to defective construction or design."[46] Thus, in a case involving alleged negligent design of automobile brakes, the court emphasized that if the design was improper it should have been "apparent in some of the hundreds of thousands of such cars in general use at the time of this accident."[47] Similarily, in a tractor upset case, the court pointed out that 300,000 such tractors had been used for years without similar accidents.[48]

Long time safe use of a particular design, however, does not conclusively establish that the design is non-negligent. A leading case on this point is *Carpini v. Pittsburgh & Weirton Bus Co.*[49] in which the brakes on a bus failed on a long downgrade resulting in a serious crash. It was alleged that the braking system was negligently designed in that pet cocks, used to drain moisture from the air chambers, were located too close to the ground. The pet cocks were unguarded and, because of their lowness, were in danger of being struck by objects on the road. A principal defense was that buses of this design had been driven millions of miles and no similar accident had ever been reported. The court held such testimony "was not conclusive any more than evidence of general practice in an industry is conclusive on whether operations are conducted with due care."[50]

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[44] Fagan v. Fletcher, 133 N.W.2d 116 (Iowa 1965). The statute may be amended to permit coverage of such a person. H.F. 551 (61st G.A. 1965), has passed the House.

[45] See 2 HARPER & JAMES, TORTS § 28.12 (1956).

[46] Darling v. Caterpillar Tractor Co., 171 Cal. App. 2d 713, 722, 341 P.2d 23, 29 (1950).

[47] Dillingham v. Chevrolet Motor Co., 17 F. Supp. 615, 617 (W.D. Okla. 1936).

[48] Ford Motor Co. v. Wolber, 32 F.2d 18 (7th Cir. 1929). See also Solomon v. White Motor Co., 153 F. Supp. 917 (W.D. Pa. 1957); Day v. Barber-Colman Co., 10 Ill. App. 2d 494, 135 N.E.2d 231 (1956); Cleary v. John M. Maris Co., 173 Misc. 954, 19 N.Y.S.2d 38 (Sup Ct. 1940); Kientz v. Carlton, 245 N.C. 236, 96 S.E.2d 14 (1957).

[49] 216 F.2d 404 (3rd Cir. 1954).

[50] *Id.* at 407. See also Hyatt v. Hyster Co., 106 F. Supp. 676 (S.D. N.Y. 1952); Beadles v. Servel, Inc., 344 Ill. App. 133, 100 N.E.2d 405 (1951), (a rather unique case involving a gas refrigerator that became *more* dangerous with use); Farley v. Edward E. Tower & Co., 271 Mass. 230, 171 N.E. 639 (1930); Martin v. Bengue, Inc., 25 N.J. 359, 136 A.2d 626 (1957).

Just as the defendant-manufacturer may tend to negative defectiveness of design by showing prior safe use, the plaintiff may wish to introduce evidence of prior unsafe use in an effort to prove negligence in the design. In a few cases evidence has been admissible for this purpose.[51] More often, though, evidence of prior unsafe use has been admitted only for the narrow purpose of showing that at the time of the accident in question the manufacturer had notice that the design involved an unreasonable risk.[52] An extensive consideration of the purpose for which evidence of prior unsafe use is admissible will be found in *Prashker v. Beech Aircraft Corp.*[53]

Closely related to the defendant's prior experience with a particular design is the experience of other manufacturers with the same or a similar design. Here too, prior safe use of the design by others tends to negative defectiveness of design[54] and show that the defendant has kept abreast of developments in the field; but such evidence is not conclusive.[55] Likewise, evidence that a safer design is customarily used in the industry tends to show that the defendant was negligent in his design.[56] It should be pointed out here, however, that there is no liability for failure to adopt the very latest design if the original design is reasonably safe.[57]

Obvious Danger

A classic defense to a charge of negligent design is to say that the danger was "obvious"; that there were "no dangers which were not apparent on casual inspection."[58] Most of the cases in which this defense was raised involved machinery with exposed moving parts.[59] In all but a few of them[60] the court held for the defendant. Iowa has long held that there is no duty to warn of an obvious danger and that the defense of obviousness of the danger will bar plaintiff's recovery.[61] In these cases, the danger was held to

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[51] Carpini v. Pittsburgh & Weirton Bus Co., 216 F.2d 404 (3rd Cir. 1954); Gall v. Union Ice Co., 108 Cal. App. 2d 303, 239 P.2d 48 (1952).

[52] Muller v. A B. Kirschbaum Co., 298 Pa. 560, 148 Atl. 851 (1930). See also De Eugenio v. Allis-Chalmers Mfg. Co., 210 F.2d 409 (3rd Cir. 1954).

[53] 258 F.2d 602, 76 A.L.R.2d 78 (3rd Cir. 1958), *cert. denied*, 358 U.S. 910 (1958).

[54] Amason v. Ford Motor Co., 80 F.2d 265 (5th Cir. 1935); Watts v. Bacon & Van Buskirk Glass Co., 18 Ill. 2d 226, 163 N.E.2d 425 (1960); Stevens v. Allis-Chalmers Mfg. Co., 151 Kan. 638, 100 P.2d 723 (1940); Lopez v. Heesen, 69 N.M. 206, 365 P.2d 448 (1961); Blissenbach v. Yanko, 90 Ohio App. 557, 107 N.E.2d 409 (1951); Reusch v. Ford Motor Co., 196 Wash. 213, 82 P.2d 556 (1938).

[55] Northwest Airlines, Inc. v. Glenn L. Martin Co., 224 F.2d 120, 50 A.L.R.2d 882 (6th Cir 1955). See also Cadillac Motor Car Co. v. Johnson, 221 Fed. 801 (2d Cir. 1915).

[56] Darling v. Caterpillar Tractor Co., 171 Cal. App. 2d 713, 341 P.2d 23 (1959). See also Garbutt v. Schechter, 167 Cal. App. 2d 396, 334 P.2d 225 (1959); Muller v. A. B. Kirschbaum Co., 298 Pa. 560, 148 Atl. 851 (1930).

[57] Marker v. Universal Oil Prod., 250 F.2d 603 (10th Cir. 1957); Pontifex v. Sears, Roebuck & Co., 226 F.2d 909 (4th Cir. 1955); Kientz v. Carlton, 245 N.C. 236, 96 S.E.2d 14 (1957).

[58] Davis v. Sanderman, 225 Iowa 1001, 1004, 282 N.W. 717, 719 (1938).

[59] *E.g.*, Messina v. Clark Equip. Co., 263 F.2d 291 (2d Cir. 1959); Allis-Chalmers Mfg. Co. v. Wichman, 220 F.2d 426 (8th Cir. 1955); Calkins v. Sandven, 129 N.W.2d 1 (Iowa 1964); Lewis v. Cratty, 231 Iowa 1355, 4 N.W.2d 259 (1942); Davis v. Sanderman, *supra*, note 58; Stevens v. Allis-Chalmers Mfg. Co., 151 Kan. 638, 100 P.2d 723 (1940); Campo v. Scofield, 301 N.Y. 468, 95 N.E.2d 802 (1950); Tyson v. Long Mfg. Co., 249 N.C. 557, 107 S.E.2d 170 (1959); Yaun v. Allis-Chalmers Mfg. Co., 253 Wis. 558, 34 N.W.2d 853 (1948).

[60] Calkins v. Sandven, and Allis-Chalmers Mfg. Co. v. Wichman, *supra*, note 59.

[61] Davis v. Sanderman, 225 Iowa 1001, 282 N.W. 717 (1938); Trainor v. H. A.

be obvious as a matter of law. Very recently, however, in a "moving-part" case,[62] the Iowa court said: "In our opinion it cannot be said as a matter of law that the danger was open and obvious on casual inspection and plaintiff was fully aware of it. We think such question was one of fact for the jury."[63]

Foreseeability and Improper Usage

The manufacturer's liability is confined to those cases in which the product is used "in a manner and for a purpose for which it is manufactured."[64] This principle was explicitely recognized by the Iowa Court in *Davis v. Coats Co.*,[65] wherein the Court sustained defendant's motion for judgment *n.o.v.* because plaintiff had used the machine for "a purpose for which the machine was not erected."[66] The question then becomes one of whether or not the particular use to which the product was put was reasonably foreseeable. In this connection, it has been stated that "misuse may be foreseeable."[67]

The Iowa Court has spoken abundantly on the issue of foreseeability and has recognized the rule that reasonable foreseeability of harm is the fundamental basis of the law of negligence.[68] A manufacturer is not bound to safeguard against occurrences that cannot be reasonably expected or contemplated as likely to occur.[69] This means that failure to guard against a result which could not reasonably have been expected is not negligence.[70] Or, as said in *Cox v. Des Moines Electric Light Co.*,[71] "due care consists in guarding, not against possibilities, but only against probabilities."[72]

In connection with the problem of foreseeability, it is well to bear in mind the words of the RESTATEMENT OF TORTS:

> If the actor's conduct is a substantial factor in bringing about harm to another, the fact that the actor neither foresaw nor should have foreseen the extent of the harm or *the manner in which it occurred* does not prevent him from being liable (emphasis added).[73]

Iowa seems to be firmly committed to this rule and has often quoted it with approval.[74] The court has also expressed substantially the same thought in these words:

> In order to constitute negligence it is not necessary that defendant could have foreseen the particular injury that resulted provided

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Maine & Co., 184 Iowa 549, 168 N.W. 872 (1918). See Lewis v. Cratty, 231 Iowa 1355, 4 N.W.2d 259 (1942).

62 Calkins v. Sandven, 129 N.W.2d 1 (Iowa 1964).

63 *Id.* at 6.

64 2 RESTATEMENT, TORTS § 395 (1934). See also § 398.

65 255 Iowa 13, 119 N.W.2d 198 (1963).

66 *Id.* at 21, 119 N.W.2d at 203.

67 1 FRUMER & FRIEDMAN § 15.01 (quoted in Davis v. Coats Co., 255 Iowa 13, 19, 119 N.W.2d 198, 202 [1963]).

68 Kapphahn v. Martin Hotel Co., 230 Iowa 739, 298 N.W. 901 (1941).

69 Butters v. Chicago, M., St. P. & Pac. Ry., 214 Iowa 700, 709, 243 N.W. 597, 601 (1932).

70 Kapphahn v. Martin Hotel Co., 230 Iowa 739, 298 N.W. 901 (1941).

71 209 Iowa 931, 229 N.W. 244 (1930).

72 *Id.* at 938, 229 N.W. at 247.

73 2 RESTATEMENT, TORTS § 435 (1934). See United States Fid. & Guar. Co. v. Brian, 337 F.2d 881 (5th Cir. 1964); Frederick v. Goff, 251 Iowa 290, 100 N.W.2d 624 (1960) and cases cited therein.

74 *E.g.*, Frederick v. Goff, *supra*, note 73; Calkins v. Sandven, 129 N.W.2d 1 (Iowa 1964).

> it should have foreseen its omission to act would probably result in injury of some kind to some person.[75]

In the very recent case of *Calkins v. Sandven*[76] the Court stated that liability of the manufacturer did "not depend upon a finding it (or he) should have foreseen the *precise* manner in which a person using the machine would be injured . . . ." (Emphasis added.)[77]

Contributory Negligence

The contributory negligence of the plaintiff is a standard defense to a negligence action. In Iowa, with few exceptions,[78] it is a complete bar to plaintiff's recovery if it "contributes in any way or in any degree directly to the injury."[79] It need not be the proximate cause of the accident.[80]

This defense was the one primarily relied on in *Lewis v. Cratty*.[81] There the plaintiff sued for injuries sustained when his clothing became entangled with an exposed power take-off shaft. The court first held that plaintiff failed to prove his freedom from contributory negligence, then said:

> Since plaintiff failed to prove his freedom from contributory negligence, the defendants' motion for a directed verdict should have been sustained.[82]

D. Statute of Limitations.[83]

Generally, in Iowa, actions for injury to property must be brought within five years after the cause accrues[84] and actions for personal injuries, whether based on contract or tort, within two years after the cause accrues.[85] An exception exists in the case of minors and insane persons.[86] In spite of the ubiquitous theory that "damage" is an essential element of a cause of action in tort, there exists some difference of opinion as to when a tort cause accrues.[87] The general rule in negligence cases has always been that if the

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[75] Priebe v. Kossuth County Agricultural Ass'n, 251 Iowa 93, 100, 99 N.W.2d 292, 296 (1959).

[76] 129 N.W.2d 1 (1964).

[77] *Id.* at 7.

[78] See IOWA R. CIV. P. 97 (1962).

[79] Thompson Wholesale Co. v. Frink, 131 N.W.2d 779 (Iowa 1964). See also Shover v. Iowa Lutheran Hospital, 252 Iowa 706, 107 N.W.2d 85 (1961); Brewer v. Johnson, 247 Iowa 483, 72 N.W.2d 556 (1955); Aitchison v. Reter, 245 Iowa 1005, 64 N.W.2d 923 (1954); Hogan v. Nesbit, 216 Iowa 75, 246 N.W. 270 (1933).

[80] See authorities cited in note 79, *supra*.

[81] 231 Iowa 1355, 4 N.W.2d 259 (1942).

[82] *Id.* at 1364, 4 N.W.2d at 263. The peculiar Iowa rule placing this burden on the plaintiff has just been done away with, and the burden is now on the defendant to prove that plaintiff was contributorily negligent. H.F. 206 (Iowa 1965).

[83] See generally 1 FRUMER & FRIEDMAN § 39; Annot., 36 A.L.R.2d 703 (1954).

[84] IOWA CODE § 614.1(5) (1962).

[85] *Id.* § 614.1(3).

[86] *Id.* § 614.8, which extends the period within which the action may be brought to "one year from and after the termination of such disability . . . ."

[87] There may also be a difference of opinion as to whether or not the action is predicated upon negligence. In American Mut. Liab. Ins. Co. v. Lionel F. Favret Co., 224 F. Supp. 477 (E.D. La. 1963), theater patrons were injured by the collapse of a ceiling more than 20 years after the work had been completed by the defendant contractor. A statute barring actions ten years after acceptance of the building was held applicable only to actions between the owner and the contractor, not to claims of third parties. It was also held that the action sounded in tort and accrued at the time of the accident. Boudot v. Schwallie, 114 Ohio App. 495, 178 N.E.2d 599 (1961), was an action against a druggist for incorrectly filling a prescription. The court held that the action sounded in malpractice and was governed by a one-year limitation period rather than the longer period applicable to actions for personal injury not predicated upon malpractice. Two years later

plaintiff's injury or his intestate's death was caused by accident or trauma, the action accrues at the time of the injury. Ingenious arguments to the contrary have, however, been advanced. Thus, in *Foley v. Pittsburgh-Des Moines Co.*[88] the defendant-manufacturer contended that a wrongful death action accrued when it turned over a gas storage tank to the purchaser, rather than the date when the tank subsequently exploded. Defendant's theory was that any breach of duty on its part occurred when the negligent acts were committed rather than when they reached fruition. In rejecting this contention, the Court said:

> It would seem elementary . . . that *a cause of action cannot accrue until an injury is actually inflicted* upon the person bringing the suit, and certainly until [the date when the tank exploded] no action of any kind could have been brought by the present plaintiff; it is inconceivable that she should be barred by lapse of time before the time she could have instituted a suit.[89] (Emphasis added.)

The same thought was succinctly expressed in *Di Gironimo v. American Seed Co.*,[90] which was an action based on the sale of an air rifle to a minor in violation of a statute. In holding that the plaintiff's action did not accrue at the time of sale, but only subsequently when he was injured, the court said:

> The minor plantiff had no cause of action against the defendant on the date of the sale of the air rifle because he had not then been injured . . . . *A right of action accrues only when injury is sustained* by the plaintiff, not when the causes are set in motion which ultimately produce an injury as a consequence.[91] (Emphasis added.)

A different result has been reached under a Connecticut statute[92] providing that, "No action to recover damages for injury to the person . . . shall be brought but within one year from the date of the act or omission complained of . . . ."[93] In *Tralli v. Triple X Stores*[94] the "act or omission" complained of was the negligent construction of a tire. The court reasoned that the "act or omission" had to have occurred prior to May 22, 1951, when the defendant-manufacturer shipped the tire to the distributor. Therefore, plaintiff's action, which was commenced one year and six days later, on May 28, 1952, was barred by the statute. In another case[95] which was singularly similar to the *Di Gironimo* case, *supra*, and which also involved an action against the seller of an air rifle in violation of a statute, the Connecticut court held that the statute commenced to run on the date of

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another Ohio appellate court held, in Jarmol v. Tas-Tee Catering, Inc., 120 Ohio App. 77, 193 N.E.2d 157 (1963), that milk containing glass was "adulterated". Therefore, the action was one based on liability created by statute and the applicable period of limitation was the one for statutory liability rather than that for personal injury.

88 363 Pa. 1, 68 A.2d 517 (1949).

89 *Id.* at 38, 68 A.2d at 535.

90 96 F. Supp. 795 (E.D. Pa. 1951).

91 *Id.* at 797.

92 CONN. GEN. STAT. § 8324 (1949).

93 The statute subsequently was amended and now provides that an action shall be barred after "one year from the date when the injury is first sustained or discovered or in the exercise of reasonable care should have been discovered, . . . except that no such action may be brought more than three years from the date of the act or omission complained of . . . ." CONN. GEN. STAT. § 52-584 (1958 Rev.).

94 19 Conn. Sup. 293, 112 A.2d 507 (1954).

95 Vilcinskas v. Sears, Roebuck & Co., 144 Conn. 170, 127 A.2d 814 (1956).

the *sale*. Plaintiff's action was barred by the statute even though the injury did not occur until two and one-half years after the purchase.

New York has recently held that in actions for personal injury based on breach of implied warranty, the statute runs from the date of the sale.[96] The question has not yet been put at rest in Iowa.

E. Conflict of Laws.

One of the traditional general rules of conflicts is that matters of procedure are governed by the law of the forum[97] and that the forum will determine whether a given question is one of procedure or substance according to its own conflicts rules.[98]

Another traditional general rule of conflicts has always been that the law of the place where a tort is committed, the *lex loci delicti*, governs the substantive law of the case.[99] The RESTATEMENT defines the place of commission as "the state where the last event necessary to make an actor liable for an alleged tort takes place."[100] In product-design cases this usually means the state in which the plaintiff suffered injury rather than the state in which the product was designed or manufactured.[101] This point was brought out by the federal court in *Anderson v. Linton*,[102] an action against a trailer manufacturer for injuries sustained in a collision in Iowa. The defendant contended that Illinois law governed because the allegedly defective trailer hitch was manufactured in Illinois. The court rejected this contention, saying: "The locus delicti is the place where the accident occurred, and where the injuries were inflicted, as distinguished from the place of the incipient negligence."[103]

By the RESTATEMENT rule the *lex loci delicti* also governs the determination of vicarious liability,[104] the right of action for wrongful death,[105] survival of an action,[106] the measure of damages,[107] how the damages are

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96 Schwartz v. Heyden Newport Chem. Corp., 12 N.Y.2d 212, 188 N.E.2d 142 (1963).

97 Kingery v. Donnell, 222 Iowa 241, 245, 268 N.W. 617, 619 (1936); Dorr Cattle Co. v. Des Moines Nat'l Bank, 127 Iowa 153, 162, 98 N.W. 918, 922 (1905); RESTATEMENT, CONFLICT of LAWS § 585 (1934) (hereinafter cited as RESTATEMENT, CONFLICTS).

98 RESTATEMENT, CONFLICTS § 584. For a general discussion of conflicts of laws in this area, see Ehrenzweig, *Products Liability in the Conflicts of Laws—Toward a Theory of Enterprise Liability under "Foreseeable and Insurable Laws"*, 69 YALE L.J. 794 (1960).

99 See Fabricius v. Horgen, 132 N.W.2d 410 (Iowa 1965); Dorr Cattle Co. v. Des Moines Nat'l Bank, 127 Iowa 153, 98 N.W. 918 (1905); RESTATEMENT, CONFLICTS §§ 377-90. *But cf.* Babcock v. Jackson, 12 N.Y.2d 473, 191 N.E.2d 279, 95 A.L.R.2d 1 (1963); Griffith v. United Air Lines, 416 Pa. 1, 203 A.2d 796 (1964).

100 RESTATEMENT, CONFLICTS § 377.

101 *E.g.*, Sylvania Elec. Prod. v. Barker, 228 F.2d 842 (1st Cir. 1955); Kieffer v. Blue Seal Chem. Co., 196 F.2d 614 (3d Cir. 1952); Anderson v. Linton, 178 F.2d 304 (7th Cir. 1949); Maryland v. Eis Automotive Corp., 145 F. Supp. 444 (D. Conn. 1956).

102 Note 101, *supra*.

103 *Id.* at 308.

104 RESTATEMENT, CONFLICTS § 387.

105 *Id.* § 391. *Contra*, Fabricius v. Horgen, 132 N.W.2d 410 (Iowa 1965).

106 RESTATEMENT, CONFLICTS § 390.

107 *Id.* §§ 412, 417. *Contra*, Fabricius v. Horgen, 132 N.W.2d 410, 416 (Iowa 1965); Dorr Cattle Co v. Des Moines Nat'l Bank, 127 Iowa 153, 165, 98 N.W. 918, 923 (1905).

distributed[108] and who is entitled to sue.[109] However, these latter rules have not always been followed by courts.[110] Iowa has long held, and recently reiterated, that the measure of damages is governed by the *lex fori*.[111]

There has been a trend, of late, away from the "wooden" rule of the RESTATEMENT and toward the more flexible "center of gravity" or "grouping of contacts" theory of conflicts. In *Kilberg v. Northeast Airlines, Inc.*,[112] the New York court refused to apply the Massachusetts death limit of $15,000 to an action by the estate of a New York resident who was killed in Massachusetts on a flight originating in New York.[113] Two years later the New York court refused to apply an Ontario law which would have denied recovery to an automobile guest, in an action against the host, where both parties were New York residents and the trip had originated there.[114]

This principle has been recognized in the TENTATIVE DRAFT OF RESTATEMENT 2d, CONFLICTS, where the rule is stated thus: "The local law of the state which has the most significant relationship with the occurence and with the parties determines their rights and liabilities in tort."[115]

The Iowa court quoted this section with apparent approval in *Fabricius v. Horgen*.[116] The case involved an action by an Iowa administrator of estates of Iowa residents against the Iowa administratrix of an estate of another Iowa resident on causes of action arising out of an automobile collision in Minnesota. The Court noted that the most significant relationships were in Iowa and that the place of the accident was merely fortuitous.[117] The Court also pointed out that "Minnesota has no conceivable interest in the remedy available to Iowa people against an Iowa defendant, in Iowa courts, arising because of acts tortious under both Minnesota and Iowa law."[118] The Court concluded by saying:

> [T]he better and more modern rule is that the determination as to the existence of actionable negligence is according to the law of the jurisdiction where the claimed tort occurred, in this instance, Minnesota. Questions as to who may maintain an action in Iowa, for whom, and the measure of damage are determined by the law of the forum, in this instance, Iowa.[119]

When an action is brought in federal court on the ground of diversity of citizenship, the doctrine of *Erie Railroad Co. v. Tompkins*[120] requires the court to apply the substantive law of the state in which it is sitting.[121]

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[108] RESTATEMENT, CONFLICTS § 393.
[109] *Id.* §§ 394-96.
[110] See notes 111-115, and 119, *infra*, and accompanying text; Haag v. Barnes, 9 N.Y.2d 554, 175 N.E.2d 441, 87 A.L.R.2d 1301 (1961); and Annot., 50 A.L.R.2d 254, 260 (1956), 92 A.L.R.2d 1180 (1963) (measure of damages), and 95 A.L.R.2d 12 (1964) (guest statutes).
[111] Fabricius v. Horgen, 132 N.W.2d 410, 416 (Iowa 1965); Dorr Cattle Co v. Des Moines Nat'l Bank, 127 Iowa 153, 165, 98 N.W. 918, 923 (1905).
[112] 9 N.Y.2d 34, 172 N.E.2d 526 (1961).
[113] See also Pearson v. Northeast Airlines, 309 F.2d 553, 92 A.L.R.2d 1162 (2d Cir. 1962); Griffith v. United Air Lines, 416 Pa. 1, 203 A.2d 796 (1964) (both involving the same problem).
[114] Babcock v. Jackson, 12 N.Y.2d 473, 191 N.E.2d 279, 95 A.L.R.2d 1 (1963).
[115] RESTATEMENT 2d, CONFLICT OF LAWS, Tentative Draft No 9, § 379 (1964).
[116] 132 N.W.2d 410, 414 (1965).
[117] *Id.* at 415.
[118] *Ibid.*
[119] *Id.* at 416.
[120] 304 U.S. 64 (1938).
[121] See 1A MOORE'S FEDERAL PRACTICE §§ 0.301-0.328 (2d ed. 1961).

Usually it is held that the substantive law of a state includes its conflict of laws rules.[122] The problem which arises, however, is that a rule which a state court has labeled "procedural" may be "substantive" within the meaning of the *Erie* doctrine if it will strongly affect the outcome of the case.[123] The problem is illustrated by *Sylvania Electric Products v. Barker*.[124] There, the federal court, sitting in Massachusetts, refered to the Massachusetts conflicts rules and determined that the law of Nebraska would govern the case. However, the court also held that a certain Massachusetts presumption[125] would be applied, even though "procedural" from a conflicts standpoint, because it was "substantive" within the meaning of *Erie*.

The question of which law is applicable in a federal court is further complicated by the tendency of federal courts to apply their own "procedural" rules, even though the outcome of the case may be materially affected thereby.[126] For example, expert testimony which is inadmissible in the state court may be admissible under the federal rules.[127] Similarily, the federal rules of discovery may be more liberal than those of the state in which the court is sitting.[128]

Conclusion

Actions for negligent design seem to have been greatly overlooked, or intentionally by-passed, by attorneys. Perhaps this is understandable in light of the attendant complexities. For example, proof of the cause will almost certainly involve the testimony of experts and a mass of technical data. Also, the courts have generally been reluctant to let juries pass on the merits of a design developed by highly trained specialists. However, attorneys should not be too easily dissuaded by the seeming formidability of these obstacles, for often the allegation of negligent design will be the obvious and easiest course to pursue.

Many questions relative to product-design cases are not as yet settled in Iowa. In addition to the question of service under section 617.3,[129] there remains the question of whether the statute of limitations begins to run at the time of the commission of the negligent act or only later when it reaches fruition by causing injury. The Iowa position relative to Conflicts of Laws was greatly clarified by *Fabricius v. Horgen*[130] and the decision in *Andersen*

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122 *E.g.*, Klaxon Co. v. Stentor Elec. Mfg. Co., 313 U.S. 487 (1941); Carlson v. Chisholm-Moore Hoist Corp, 281 F.2d 766 (2d Cir. 1960); Sylvania Elec. Prod. v. Barker, 228 F.2d 842 (1st Cir. 1955); Tomao v. A. P. De Sanno & Son, 209 F.2d 544 (3d Cir. 1954); Kieffer v. Blue Seal Chem. Co., 196 F.2d 614 (3d Cir. 1952); Zellmer v. Acme Brewing Co., 184 F.2d 940 (9th Cir. 1950).

123 See, *e.g.*, Alexander v. Inland Steel Co., 263 F.2d 314 (8th Cir. 1954); Siero-cinski v. E. I. Du Pont De Nemours & Co., 118 F.2d 531 (3d Cir. 1941); 1A MOORE'S FEDERAL PRACTICE § 0.315(2) (2d ed. 1961).

124 228 F.2d 842 (1st Cir. 1955), *cert. denied*, 350 U.S. 988 (1956).

125 That a manufacturer knows the nature and quality of his product.

126 Notes 127 and 128, *infra*, and accompanying text.

127 See Carlson v. Chisholm-Moore Hoist Corp., 281 F.2d 766 (2d Cir. 1960); Persons v. Gerlinger Carrier Co., 227 F.2d 337 (9th Cir. 1955); FED. R. CIV. P. 43(a).

128 See 1A MOORE'S FEDERAL PRACTICE § 0.317(3) (2d ed. 1961); 4 *id.* § 26.23(9) (2d ed. 1963).

129 Discussed in text accompanying notes 30-44, *supra*.

130 132 N.W.2d 410 (1965)

v. National Presto Industries, Inc.,[131] should do as much for questions relating to service of process.

Although *Lubin v. City of Iowa City*[132] may perhaps be a harbinger, it does not yet seem likely that Iowa will forsake the fault concept in tort actions for the liability-without-fault concept established by California in *Greenman v. Yuba Power Products, Inc.*[133] It seems more probable that Iowa will continue to confine its applications of strict liability to special circumstances and cases involving special products, like food and drugs.

JOHN R. BAUR (January, 1966)

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[131] See note 43, *supra*.
[132] 131 N.W.2d 765 (1965).
[133] 59 Cal. 2d 57, 27 Cal. Rptr. 697, 377 P.2d 897 (1962), discussed in note 16, *supra*.