CHAPTER XIX

LIABILITY OF INDIVIDUALS AND CORPORATIONS IN MATTERS AFFECTING THE PUBLIC HEALTH

EVERYONE is entitled by law to the reasonable enjoyment of life, liberty, and property, and to the security of his person, his family, and his possessions. Government recognizes these rights and protects them, although the sovereign power may properly impose certain desirable restraints upon individual rights for the benefit of the common good. The State may always regulate life, liberty, and property in the interests of the public health and the general welfare.

Whenever a personal right created and sanctioned by law is violated, the resulting wrong to the individual is known as a tort. Among the numerous kinds and classes of torts are many that involve hazards to human life and injuries to personal health. Although these are private wrongs, they may also affect the public health, either directly or indirectly. The maintenance of a nuisance is a tort giving rise to liability, but it may likewise be a public offense under certain conditions.[1] So, too, disease caused by contaminated food or milk or by polluted water is a tort which obviously has serious public health implications.

Another branch of private law, that of contracts, may involve matters of direct interest to the public health. Breaches of contract, causing liability in cases of express or implied warranties of the purity and safety of domestic water supplies, food supplies, drugs and biological products, medical and nursing services, therapeutic devices and cosmetics, and other commodities and services, may be of direct significance to the public health.

The existence of these various liabilities under the law of torts and the law of contracts often has a salutary effect upon natural persons and corporations who are or may be potential violators of the principles and the rules of public health procedure. The jurisprudence of public health is, however, concerned mainly with constitutional, administrative, municipal, and public law, rather than with private law.

Where a statute, municipal ordinance, or a valid regulation having the force and effect of law imposes upon any person or corporation a duty for the protection of others, or in the performance of which the public is involved, a person injured by the violation or neglect of such

1. See Chapter XIII, on Nuisances and Sanitation.

a law has the right of private action against the transgressor for the damages sustained.[2] The violation of a public health law or regulation which results in personal injury automatically raises the presumption of actionable negligence in a tort case or of breach of contract. In some States it has been held, however, that violation of a statute is negligence *per se* but violation of an ordinance or regulation is merely evidence of negligence.

Many types and classes of persons may be involved in liabilities which pertain in this manner to the broad domain of public health protection. A private corporation is liable under substantially the same rules as a natural person.

The responsibility of persons and corporations to the State in public health matters is discussed at length in other parts of the book.

Physicians and Other Professions

Any person who offers his services in a professional capacity, whether as a physician or other healer, dentist, veterinarian, or nurse, contracts with his employer, patient, or client that he possesses that reasonable degree of learning, skill, and experience usually possessed by members of his profession at the time and in the same locality, or in similar localities, where he practices; and he contracts further that he will employ reasonable and ordinary care and diligence in the exercise of that skill and knowledge, according to his best judgment.[3] Injuries resulting from failure to do these things will make the practitioner liable.[4]

A physician in attendance upon a case of communicable disease must follow all legal requirements and must take all necessary precautions to prevent the spread of the disease to others. If he does not do so and the disease is communicated to others, he will be civilly as well as criminally liable for the injuries caused.[5] Thus, where a physician fails to report a case of contagious or infectious disease as required by law, and as a consequence of his neglect of this duty other persons are infected, the physician will be liable for damages to the

2. *Cooley on Torts.*

3. E. D. Brothers, *Medical Jurisprudence,* 3d ed., St. Louis, Mosby, 1930.

4. See W. C. Woodward, *Medicolegal Cases, Abstracts of court decisions of medicolegal interest, 1926-1930 and 1931-1935,* Chicago, American Medical Association, 1932 and 1936.

5. *Helland* v. *Bridenstine* (1909), 55 Wash. 470, 104 P. 626. *Skillings* v. *Allen* (1921), 148 Minn. 88, 180 N.W. 916. *People* v. *Clobridge* (1930), 249 Mich. 376, 228 N.W. 692.

person or persons who contract the disease,[6] but only when his negligence can be definitely proven to the proximate cause of the disease.[7]

Where, for example, typhoid fever was spread in a family from a single case, the attending physician was absolved from liability since he had reported the case and, under existing law, he was not bound to enforce the rules of the state board of health, which was the duty of the local health officer.[7] The physician was, of course, bound not to do any act that would tend to spread the disease. Public health laws and regulations usually require that physicians in attendance upon cases of communicable disease shall take certain specific and general precautions. For compliance with these requirements, there can be no liability on the part of a practicing physician, but injuries resulting from their direct violation will invariably cause liability.

A physician will not be liable for a mistaken report of a suspected disease if he acts in good faith and in accordance with his best judgment.[8] Nor does the reporting of actual or suspected disease, as required by law, violate the confidential relationship between the physician and his patient.[9]

In a malpractice action brought against a physician for alleged negligent care of the eyes of an infant at birth, resulting in the loss of one eye, it was brought out that the statutes required that any inflammation, swelling, redness, or unnatural discharge of the eyes occurring within two weeks after birth was required to be reported to the local health officer within six hours. For failure to do this, the physician was held to have been guilty of negligence *per se*, although for other reasons a new trial was ordered.[10]

Where good medical practice dictates the prompt administration of biological products in the treatment of communicable diseases, such as antitoxin for diphtheria or tetanus, a physician who fails to use these methods, or is tardy in their use, will be liable to the patient or his heirs for resulting injury or death.[11]

6. *Jones* v. *Stanko* (1927), 118 Oh. St. 147, 160 N.E. 456.

7. *Davis* v. *Rodman* (1921), 147 Ark. 385, 227 S.W. 612, 13 A.L.R. 1459.

8. *McGuire* v. *Amyx* (1927), 317 Mo. 1061, 297 S.W. 968, 54 A.L.R. 644.

9. *Simonsen* v. *Swenson* (1920), 104 Neb. 224, 177 N.W. 831, 9 A.L.R. 1250.

10. *Dietsch* v. *Mayberry* (1942), 70 Oh. App. 527, 47 N.E. (2d) 404. *Medlin* v. *Bloom* (1918), 230 Mass. 201, 119 N.E. 773. In *Walden* v. *Jones* (1942), 289 Ky. 395, 158 S.W. (2d) 609, a physician was held liable for failure to use silver nitrate in an infant's eyes at birth.

11. *People* v. *Clobridge* (1930), 249 Mich. 376, 228 N.W. 692. *Thompson* v. *Anderson* (1934), 217 Ia. 1186, 252 N.W. 117. *Janssen* v. *Mulder* (1925), 232 Mich. 183, 205 N.W. 159 (chiropractor). *Hodgson* v. *Bigelow* (1939), 335 Pa. 497, 7 A. (2d) 338 (failure of physician to administer antitetanus serum).

A private hospital operated for gain is subject to the same general liability for personal injuries as is a physician, but a charitable hospital usually is not liable for injuries to charity patients.[12] Where, for example, a newborn infant of a paying patient contracted tuberculosis from a nurse in a private hospital as a result of the negligence of the nurse and the negligence of the hospital authorities in permitting a nurse with tuberculosis to come in contact with patients, the hospital was held liable.[13]

A nurse who is acting under the direction of a physician or hospital, or who gives reasonable emergency treatment, is not liable for injuries, but she may be liable for injuries resulting from independent practice, for negligence, or for acts that are beyond the scope of her work or are inconsistent with the orders or directions given to her. Physicians and hospitals are responsible for injuries caused by nurses acting under their direction.

Physicians, nurses, and hospitals are liable for the creation and maintenance of public or private nuisances in the same manner and to the same extent that other persons are responsible for such conditions.[14] Hospitals and professional practices of all kinds are not *per se* nuisances, but they may become nuisances under certain conditions.

The owner or operator of a private laboratory is liable for injuries resulting from negligent, erroneous, or fraudulent reports made by himself or by laboratory technicians selected and employed by him and acting under his direction, but he is not liable for mistakes or errors that may be made by a prudent person in a similar position, who is exercising ordinary care and reasonable skill. Where laboratory technicians are licensed in accordance with law, injuries resulting from the report or action of an unlicensed technician would usually be negligence *per se*.

Manufacturers and Sellers of Food

Despite the legal rule known as *caveat emptor*, under which the buyer purchases at his own risk in the absence of a warranty or of fraud, there is always an implied warranty that food sold for human consumption is wholesome. This rule was recognized by the common law[15] but did not receive sanction in the later English and American

12. E. Hayt and L. R. Hayt, *Legal Guide for American Hospitals*, New York, Hospital Textbook Co., 1940.

13. *Taaje* v. *St. Olaf Hospital* (1937), 199 Minn. 113, 271 N.W. 109.

14. See Chapter XIII, on Nuisances and Sanitation.

15. 3 *Blackstone's Commentaries* 166.

law. As a consequence, there has been some conflict in the earlier court decisions on the subject, but the principle of implied warranty seems now, with few exceptions, to be well established in American jurisprudence.

An implied warranty, like an express warranty, of the wholesomeness of food is a contractual relationship between the buyer and the seller, and is based on a privity of contract between them, regardless of any intent or negligence on the part of either the vendor (seller) or the vendee (buyer). Thus, a druggist who sells ice cream to a customer is liable for illness caused by toxic properties of the ice cream,[16] and a milk dealer who delivers milk that causes undulant fever will be liable on an implied warranty.[17]

"The consequences to the consumer resulting from the consumption of articles of food sold for immediate use," said the New York Court of Appeals in the ice cream case,[18] "may be so disastrous that an obligation is placed on the seller to see to it, at his peril, that the articles sold are fit for the purpose for which they are intended. The rule is an onerous one, but public policy as well as the public health demand such obligation should be imposed."

A manufacturer of food warrants its wholesomeness to the retailer to whom he sells it, since there is privity of contract between them, but in the absence of a statute imposing this liability, there is no implied warranty between the manufacturer and the ultimate consumer, where a retailer or other middleman is interposed between them.[19] A retailer may, however, be liable on an implied warranty to a buyer to whom he sells food in a sealed package, bottle, or can furnished by the manufacturer.[20]

16. *Race* v. *Krum* (1918), 222 N.Y. 410, 118 N.E. 853, L.R.A. 1918 F 1172. *Temple* v. *Keeler* (1924), 238 N.Y. 344, 144 N.E. 635. *Minutilla* v. *Providence Ice Cream Co.* (1929), 50 R.I. 43, 144 A. 884, 63 A.L.R. 334, 28 N.C.C.A. 428. *Kress & Co.* v. *Ferguson* (Tex. 1933), 60 S.W. (2d) 817. *Woolworth* v. *Wilson* (Tex. 1935), 74 F. (2d) 439, 98 A.L.R. 681.

17. *Colonna* v. *Rosedale Dairy* (1936), 166 Va. 314, 186 S.E. 94. *Nelson* v. *West Coast Dairy Co.* (1940), 5 Wash. (2d) 284, 105 P. (2d) 76, 130 A.L.R. 606.

18. *Race* v. *Krum* (1918), 222 N.Y. 410, 118 N.E. 853, L.R.A. 1918 F 1172. *Greco* v. *S. S. Kresge Co.* (1938), 277 N.Y. 26, 12 N.E. (2d) 557, 115 A.L.R. 1020. *Steinberg* v. *Bloom* (1938), 5 N.Y.S. (2d) 774.

19. *Mazetti* v. *Armour* (1913), 75 Wash. 122, 135 P. 633, 48 L.R.A. (N.S.) 213, Ann. Cas. 1915 C 140. *Chysky* v. *Drake* (1923), 235 N.Y. 468, 139 N.E. 576, 27 A.L.R. 1533. *Carlson* v. *Turner Center System* (1928), 263 Mass. 339, 161 N.E. 245.

20. *Bowman* v. *Woodway Stores* (1930), 258 Ill. App. 307. *Lieberman* v. *Sheffield Farms* (1921), 117 Misc. 531, 191 N.Y.S. 593. *Aron* v. *Sills* (1924), 240 N.Y. 588, 148 N.E. 717. See 12 N.C.C.A. (N.S.) 714.

In addition to actions under the doctrine of implied warranty on a contractual basis for injuries due to unwholesome food, there is another remedy at law. This is an action of tort for negligence, which may be brought by an injured buyer against the retailer, distributor, wholesaler, or manufacturer of the offending food. The buyer must, however, be free from contributory negligence. As a rule, the aggrieved person may bring action for both negligence and breach of warranty at one and the same time. In the absence of a statute to the contrary, the tort action abates with the death of the wrongdoer.

Whenever the manufacturer or purveyor of a food has violated a pure food law or a public health statute, negligence on his part can presumed,[21] although it may, of course, also be shown in other ways. In cases of violation of pure food or other laws, it is not essential to a recovery that the defendant should be shown to have had knowledge of the impurity of the food, or to have been wanting in ordinary care.[22]

In a number of instances where buyers of pork or of sausage have contracted trichinosis, it has been held that liability for negligence will not be imposed on the wholesale dealer or packer who sold the pork to the retailer[23] or on a retail dealer who sold these products to a customer,[24] since it is commonly known that pork and pork products must be thoroughly cooked in order to prevent trichinosis. The pure food laws usually do not define pork as adulterated or diseased merely because it contains the trichinae, which cannot be detected by ordinary methods of inspection and which can be destroyed by thorough cooking before this food is eaten. On the other hand, damages for trichinosis due to eating pork have been allowed under existing law in Ohio,[25] and in New York under the doctrine of implied warranty.[26]

21. *Meshbesher* v. *Channellene Oil Co.* (1909), 107 Minn. 104, 119 N.W. 428, 131 A.S.R. 441. *Taugher* v. *Ling* (1933), 127 Oh. St. 142, 187 N.E. 19.

22. *Donaldson* v. *Great A. & P. Tea Co.* (1938), 186 Ga. 870, 199 S.E. 213, 128 A.L.R. 456. See also 143 *American Law Reports* 1421.

23. *Cheli* v. *Cudahy Bros. Co.* (1934), 267 Mich. 690, 255 N.W. 414. *Siebert* v. *Bose* (1935), 243 App. Div. 692. *Dressler* v. *Merkel, Inc.* (1936), 247 App. Div. 300, 284 N.Y.S. 697. *Tavani* v. *Swift & Co.* (1918), 262 Pa. 184, 105 A. 55. *Ketterer* v. *Armour & Co.* (1917), 247 F. 921, L.R.A. 1918 D 798, 160 C.C.A. 111. *Kierstein* v. *Cudahy* (1934), 80 F. (2d) 518. *Karger* v. *Armour & Co.* (1938), 17 F. Supp. 484.

24. *Zorger* v. *Hellman's* (1936), 287 Ill. App. 357, 4 N.E. (2d) 900. *Wiedeman* v. *Keller* (1897), 171 Ill. 93, 49 N.E. 210. *Feinstein* v. *Daniel Reeves, Inc.* (N.Y. 1936), 14 F. Supp. 167. *Vaccarino* v. *Cozzuba* (1943), 181 Md. 614, 31 A. (2d) 316.

25. *Great A. & P. Tea Co.* v. *Hughes* (1936), 131 Oh. St. 501, 3 N.E. (2d) 415. *West* v. *Katsafanos* (1932), 107 Pa. Super. 118, 162 A. 685. *Kniess* v. *Armour*

(*Continued on next page.*)

Where the proprietor of a provision market advertised rabbits for sale in his market, and a purchaser bought them from a counter which the proprietor had leased to a third person, but the purchaser believed he was buying from the proprietor, it has been held that the third person who leased the counter was an agent by estoppel of the proprietor and that the proprietor was liable for tularemia contracted by the purchaser of the rabbits.[27]

Negligence in cases of injuries caused by foods must always be proven beyond a reasonable doubt. Conjecture and supposition will not uphold such an action. Where, for example, it was alleged that amebic dysentery was contracted from a soft drink containing an infected fly, the mere facts that a fly was found in the bottle and that flies are said to carry the organism causing amebic dysentery are not satisfactory proof that the drink was contaminated, especially when laboratory tests failed to show the presence of amebae in it.[28]

In an action brought to recover damages for illness due to eating cream puffs which had been infected with paratyphoid B bacilli, it was held by the Massachusetts Supreme Judicial Court that there was no liability on the part of the owner of the bakery which had sold the goods, because it had not been shown that the defendant had violated any statute or had failed to take proper precautions in the conduct of the business.[29] In this case, the infected cream puffs had been purchased on April 1, and on April 29 a physician from the state health department reported that one of the employees of the bakery was a carrier of paratyphoid fever. It was shown that the ingredients used in the goods were wholesome, and that there had been no reason to suspect the healthy employee of being a disease carrier.

Private Water Companies

Since the position of a private water company supplying water for domestic consumption is analogous to that of a vendor of food, there

(1938), 134 Oh. St. 432, 17 N.E. (2d) 734. *Troitto* v. *Hammond* (Ohio 1940), 110 F. (2d) 135. *Kurth* v. *Krumme* (1944), 143 Oh. St. 638, 56 N.E. (2d) 227. *Leonardi* v. *Habermann* (1944), 143 Oh. St. 623, 56 N.E. (2d) 232.

26. *Rinaldi* v. *Mohican Co.* (1916), 225 N.Y. 70, 121 N.E. 471. *McSpedon* v. *Kunz* (1935), 245 App. Div. 824, 281 N.Y.S. 147, affirm. (1936) in 271 N.Y. 131, 2 N.E. (2d) 513, 105 A.L.R. 1497. *Eisenbach* v. *Gimbel* (1939), 281 N.Y. 474, 24 N.E. (2d) 131. *Catalanello* v. *Cudahy* (1942), 34 N.Y.S. (2d) 37, 264 App. Div. 723. *Greco* v. S. S. *Kresge* (1938), 277 N.Y. 26, 12 N.E. (2d) 557, 115 A.L.R. 1020.

27. *Rubbo* v. *Hughes Provision Co.* (1941), 138 Oh. St. 178, 34 N.E. (2d) 202.

28. *Coca Cola Co.* v. *Bell* (1937), 194 Ark. 671, 109 S.W. (2d) 115.

29. *Johnson* v. *Stoddard* (1941), 310 Mass. 232, 37 N.E. (2d) 505, 140 A.L.R. 186.

would seem to be no logical reason why a water company should not be liable on an implied warranty for injuries or illness due to impure or contaminated water furnished by it to its customers.[30] Adjudications of this matter in the past have, however, developed the legal principle that private and municipal corporations[31] are not guarantors or insurers of the purity of domestic water supplies, and are not liable on an implied warranty. The water company must, however, use all reasonable care to ascertain the sanitary condition of its water supply, and must promptly take all necessary measures to safeguard the health of users of the water and to protect the community which it serves.[32] For failure to perform these duties the water company will be liable for illness or injuries caused by the water supply.

In early cases involving typhoid fever due to contaminated water, the courts held that where no negligence on the part of the water company was shown,[33] or where the existence of the contamination had been so generally known and realized by the public and by the individual concerned that his use of raw and untreated water amounted to contributory negligence,[34] no recovery would be allowed against the water company.

This rather harsh rule of law has been modified to some extent in the later decisions, in which it has been held that it is no part of the duty of the consumer to investigate the water supply or to ascertain possible sources of pollution, but that this duty rests upon the water company, which must take such positive action as is necessary to determine the condition of the water supply, and must exercise due care for the protection of the health of its customers.[35] Whether these

30. In *Jones* v. *Mt. Holly Water Co.* (1915), 87 N.J.L. 106, 96 A. 860, it was stated that, "Water is a necessity of life, and one who undertakes to trade in it and supply customers stands in no different position to those with whom he deals than does a dealer in foodstuffs."

31. The liability of municipal corporations for diseases caused by contaminated public water supplies is discussed on pages 285-289.

32. *Hayes* v. *Torrington Water Co.* (1914), 88 Conn. 394, 92 A. 406.

33. *Buckingham* v. *Plymouth Water Co.* (1891), 142 Pa. 221, 21 A. 824. *Gosser* v. *Ohio Valley Water Co.* (1914), 244 Pa. 59. In *Brymer* v. *Butler* (1896), 172 Pa. 489, it was held that a water company supplying impure water can be enjoined from collecting water rents.

34. *Green* v. *Ashland Water Co.* (1898), 101 Wis. 258, 77 N.W. 722, 43 L.R.A. 117, 70 A.S.R. 911.

35. *Kohlmeyer* v. *Ohio Valley Water Co.* (1914), 58 Pa. Super. 63. *Jones* v. *Mt. Holly Water Co.* (1915), 87 N.J.L. 106, 96 A. 860. *Hamilton* v. *Madison Water Co.* (1917), 116 Me. 157, 100 A. 659, Ann. Cas. 1918 D 853. *Penn. R. Co.* v. *Lincoln Trust Co.* (1929), 91 Ind. App. 28, 167 N.E. 721, 170 N.E. 92.

duties have been fulfilled by the water company is a question of fact for a jury to decide in the light of all the evidence. It may be shown that the water was the probable cause of the typhoid fever or other disease, excluding the probability of other causes, but where such proof is lacking the company will be absolved from liability.[36]

A water company will not be exonerated or freed from liability to consumers by posting notices or giving publicity to the fact that the water is impure or dangerous, since the company has a duty to use diligent effort to provide water that is safe and potable. Nor will a private water company be free from liability if a health department or other official agency fails to warn it of any dangerous condition of the water; and the issuance of such an official warning will not be conclusive evidence that the water is so polluted as to establish liability, although the fact of the notice would be admissible evidence in a court action as tending to show negligence on the part of the company.

A restaurant which supplies its customers with water for drinking purposes from its own well impliedly warrants the reasonable fitness of the water for drinking, and will be liable for illness caused by it, according to a decision of the Supreme Court of Ohio.[37] The court held that the water furnished with the meal was a part of the meal, that it was a sale, and that the water was adulterated contrary to the state laws, since it was contaminated with sewage.

The liability of industrial concerns for furnishing impure water to their employees is set forth on pages 270-271 in Chapter XVI on Industrial Hygiene.

The presence of fluorine in public water supplies may be detrimental to the health of children, since a concentration in excess of one part per million of fluorine in water used for drinking and cooking will cause mottled enamel of the teeth of most children who consume such water. Legally, this situation is different from a case in which a public water supply becomes contaminated through negligence of a water company. In many instances, the condition cannot be satisfactorily controlled by the water company, although engineers and chemists are endeavoring to work out methods for its correction. Where the

36. *Webber* v. *Pacific Power and Light Co.* (1925), 137 Wash. 560, 242 P. 1104.

37. *Yochem* v. *Gloria* (1938), 134 Oh. St. 427, 17 N.E. (2d) 731. For liability of restaurant keepers for unwholesome food, see 18 N.C.C.A. (N.S.) 573. In *Cady Lumber Co.* v. *Fain* (Ariz. 1933), 65 F. (2d) 644, an award of $27,500 damages for typhoid fever alleged to have been caused by water furnished by the company to an employee was reversed on technical grounds of evidence. The error was admission of testimony relating to an analysis of milk, although no analysis for typhoid had been made of the milk.

water company has used every means in its power to remove or reduce fluorine in the available water supply, and also issues general public warnings that the water is unfit for consumption by children, it is unlikely that the water company could be held liable for injuries from this cause.

Discontinuance of water service to an individual customer sometimes creates a health problem which results in complaints to the health department. The water company is acting within its rights, however, when it shuts off water for failure or refusal of payment of water bills properly incurred, or for necessary repairs, although the company must usually continue to supply water pending the settlement of a legitimate dispute as to the proper amount of a bill for water consumed. Any health hazard or nuisance resulting from the lawful discontinuance of water service is, therefore, usually the responsibility of the householder and not of the water company. The health department may order abatement of the nuisance or removal of the health hazard by the person who is responsible for it.

Manufacturers and Sellers of Drugs and Biological Products

A manufacturer of a drug, chemical, medicine, or a biological product, such as a vaccine, serum, or antitoxin, is bound to use due care in its preparation and distribution, so that the health of those using the product will be safeguarded. The mere fact that an injury or death results from the application or use of one of these products does not, however, constitute proof, under the legal doctrine of *res ipsa loquitur*, that the preparation was at fault. It must be shown by competent evidence that the injury or death was due to the product of the manufacturer, that it was inherently dangerous and/or poisonous, and that the manufacturer was negligent in putting upon the market such a product.[38]

Where a veterinarian who had been bitten by a dog administered to himself by hypodermic methods thirteen injections of an antirabic vaccine according to the manufacturer's directions, and died some months later of inflammation of the spinal cord, his widow was unable to recover from the manufacturer, since no evidence was adduced to show that the serum was negligently prepared or was inherently dangerous.[39] But where an eyelash preparation caused severe injuries to a user who relied on statements on the label, and it was shown that

38. *Karr* v. *Inecto* (1928), 247 N.Y. 360, 160 N.E. 398.

39. *Tremaine* v. *H. K. Mulford Co.* (1935), 317 Pa. 97, 176 A. 212., *Hruska* v. *Parke Davis Co.* (1925), 6 F. (2d) 536.

the preparation contained harmful chemicals, an award of $2,000 damages against the manufacturer was upheld.[40] In the same case, an action against the beauty shop in which the preparation was applied was dismissed.

In a case where a child died of phosphorus poisoning due to having eaten fireworks which contained yellow phosphorus, the manufacturer was held not to be liable on the grounds that fireworks were not intended for human consumption, and it could not be foreseen that anyone, even a child, would be likely to eat them.[41]

There is no implied warranty on the part of a manufacturer of biological products, such as vaccines, that their use will protect man or animals[42] against the diseases for which they are intended as immunizing agents. Nor will the manufacturer be liable for injuries due to the negligent, careless, or improper administration of these products by physicians and others,[43] but the person directly responsible for the injury will be liable.

A retailer, such as a druggist, who sells drugs, patent medicines, and biological products is not liable for injuries due to preparations sold in a manufacturer's sealed package, unless he expressly warrants them or is negligent in the way that he handles them. A druggist or pharmacist will be liable for negligence due to improper filling of a prescription, or for including a substance which he knows to be dangerous, or for the use of a preparation of his own that causes preventable injury.[44]

The same general rules of law apply to the liability of manufacturers and sellers of diagnostic and therapeutic devices.

Individuals Who Spread Diseases

Any person who wilfully or negligently spreads or causes or permits the spreading of a dangerous communicable disease will be civilly liable for damages to the person who contracts the disease, as well as being criminally liable for his misdemeanor in accordance with the terms of existing public health statutes, ordinances, or board of

40. *Bundy* v. *Ey-Teb, Inc.* (1935), 289 N.Y.S. 905, 160 Misc. 325; affirm. in 248 App. Div. 596.

41. *Victory Sparkler Co.* v. *Price* (1927), 146 Miss. 192, 111 So. 437, 50 A.L.R. 1454.

42. *Balhorn* v. *Moore* (Ia. 1924), 200 N.W. 601, 39 A.L.R. 397.

43. *Baundenbach* v. *Schwerdfeger* (1928), 230 N.Y.S. 640, 222 App. Div. 314. *Carmen* v. *Eli Lilly & Co.* (1941), 109 Ind. App. 76, 32 N.E. (2d) 729.

44. *Howard* v. *Jacobs Pharmacy* (1937), 55 Ga. App. 163, 189 S.E. 373.

health regulations.[45] One who exposes another to a dangerous disease, even if no disease is contracted, may be civilly liable and usually will also be criminally liable.

Knowledge of the existence of the disease is necessary to prove liability in such cases,[46] but it does not matter whether the person who negligently causes the spread of disease does so by having it himself, or, being healthy, negligently permits someone else to cause the infection. Thus, a landlord or innkeeper will be liable for disease if he rents without proper precautions a room which he knows has been recently occupied by a person with a dangerous communicable disease, or if he puts a healthy person in a room with a sick one.[47] An innkeeper is not liable for refusing to accept as a guest a person afflicted with a communicable disease.

Barbers, hairdressers, cosmeticians, and "beauticians" will be liable for diseases or injuries to their customers which are due to negligence on their part.[48] The same legal rule applies to persons who operate commercial baths, swimming pools, and similar establishments.

Owners and keepers of animals that cause disease or injury in man or other animals may be liable for negligence. Thus, where a dog having rabies was permitted to run at large in violation of a municipal ordinance, an award of $750 for damages to a child bitten by the dog was upheld.[49] Although the owner was not aware of the dog's affliction, the mere fact of violation of the ordinance, the validity of which was sustained by the court, was held to constitute negligence sufficient to entitle the injured person to a recovery which, under the circumstances, did not exist at common law.

Jailers, sheriffs, and other persons having custody of prisoners, wit-

45. *Smith* v. *Baker* (1884), 20 F. 709. *Kliegel* v. *Aitken* (1896), 94 Wis. 432, 69 N.W. 67, 35 L.R.A. 249, 59 A.S.R. 901. *Edwards* v. *Lamb* (1899), 69 N.H. 599, 45 A. 480, 50 L.R.A. 160. *M. K. & T. R. Co.* v. *Wood* (1902), 95 Tex. 223, 66 S.W. 449, 56 L.R.A. 592, 93 A.S.R. 834. *Franklin* v. *Butcher* (1910), 144 Mo. App. 660, 129 S.W. 431.

46. *Long* v. *Chicago R. Co.* (1892), 48 Kan. 28, 30 A.S.R. 271.

47. *Minor* v. *Sharon* (1873), 112 Mass. 477, 17 Am. R. 122. *Cesar* v. *Karutz* (1875), 60 N.Y. 229, 19 Am. R. 164. *Gilbert* v. *Hoffman* (1885), 66 Ia. 205, 55 Am. R. 263. *Cutter* v. *Hamlin* (1888), 147 Mass. 471.

48. *Barnett* v. *Roberts* (1922), 243 Mass. 233, 137 N.E. 353, 22 N.C.C.A. 841. *Sweeten* v. *Friedman* (1928), 9 La. App. 44, 118 So. 787. *Marsteller* v. *Kann* (1929), 32 F. (2d) 419. *Reed* v. *Rosenthal* (1929), 129 Ore. 203, 276 P. 684, 63 A.L.R. 1071. *Cowhig* v. *Cafarelli* (1945), – Mass. –, 63 N. E. (2d) 347.

49. *Pettus* v. *Weyel* (Tex. 1920), 225 S.W. 191.

nesses, or detained individuals will be personally liable for negligence in permitting their charges to contract disease.[50]

A teacher is not personally liable for a disease spread from one child to another in her classroom where ordinary and reasonable care in the supervision of the pupils is exercised. A teacher would, however, be liable for negligently causing disease in a pupil, as in an instance where a teacher suffering from tuberculosis knowingly accepted employment in violation of a law prohibiting such employment, and subsequently transmitted the disease to a pupil.

An award of $3,000 in damages to a woman who contracted gastroenteritis from a city water supply, which had been polluted by the negligence of a private corporation engaged in road building, was upheld by the Supreme Court of Mississippi.[51] The corporation had a water line connected with the city's supply, but as the work proceeded, it extended its line into a bayou which received most of the city's sewage. Because of failure to install a safety valve, the water from the polluted bayou was allowed to enter the city's supply, with the result that an epidemic occurred among the users in a certain locality.

Industrial Employees

Before the advent of state workmen's compensation laws making compulsory or elective suitable compensation and medical care for workmen injured by accident or disease in the course of their employment, the liability of the employer was governed by the somewhat complex principles of the law of master and servant.

Under these legal principles, all individuals and corporations who employ workmen or servants must furnish them with reasonably safe places in which to work; must provide suitable, sufficient, and reasonably safe tools, appliances, and machinery; must exercise due care in the selection of competent workmen; and must so conduct their businesses that their employees will not be exposed to unreasonable hazards. For negligence in carrying out these duties, the employer will be liable for injuries and for diseases that arise directly out of employment.

The employee, on the other hand, assumes certain risks of employment, including the risk of all patent or apparent dangers and the risk of negligent acts by his fellow employees. Wherever there is contributory negligence on the part of the worker, due to these reasons or others, the employer is not liable for injuries, accidents, or diseases.

50. *Hunt* v. *Rowton* (1930), 143 Okla. 181, 288 P. 342. *Lewis* v. *City of Miami* (1937), 127 Fla. 426, 173 So. 150.

51. *Carey-Reed Co.* v. *Farmer* (1939), 187 Miss. 12, 192 So. 48.

The difficulties inherent in establishing liability of an employer for negligence under these principles are illustrated by a case in which a worker became infected with gonorrhea after using water and a towel which his gang foreman had used in one of the company's section houses. He sued the company for damages, but the court held that while the foreman may have violated a moral duty owed to the plaintiff when he permitted him to use the contaminated towel, he had violated no legal duty that the company, or he as the company's representative, owed to the plaintiff.[52]

The ways in which the common law rules of employer liability have been modified or supplanted by modern workmen's compensation laws, as interpreted by the courts, are discussed at length in Chapter XVI, on Industrial Hygiene and Occupational Diseases.

Industrial employers are liable to outsiders as well as to their own employees for injuries or diseases caused by their negligence or by the negligence of their employees while acting in the course of their employment. Where the supervision of employees suffering from communicable diseases is removed from the jurisdiction of the employer to that of the health department, as in the case of railroad boarding cars used for the quarantine of railroad employees with smallpox, the company is not liable for the subsequent spread of the disease from this source.[53]

Libel and Slander

Among the legal rights of an individual is the right to be secure in his reputation. When false statements that are calculated to bring him into disrepute are uttered or published, so that they come to the attention of third persons, this right is violated.

Defamatory statements of this nature that are spoken constitute slander; those that are published by means of writing, printing, pictures, images, or in any other way constitute libel. Slander and libel are torts which entitle the wronged person to a civil action. Under certain conditions, as expressed in statutes, libel and slander may also be criminal offenses.

Certain types of published statements may be actionable *per se,* requiring no proof of actual injury. In this class are false imputations of criminal offenses involving moral turpitude; false imputations of infections with loathsome diseases; and false charges of unfitness to perform the duties of an office, trade or business, or profession.

52. *Gulf, C. & S. F. Ry. Co.* v. *Boss* (Tex. 1926), 285 S.W. 939.

53. *Mason* v. *Ill. Cent. R. Co.* (1903), 25 Ky. L.R. 1214, 77 S.W. 375.

Since words which impute that a person is suffering from a contagious or infectious disease will tend to exclude him from society, such words are always actionable if false. Nowadays, however, actionable imputations of this kind are generally limited to false charges of the presence of venereal diseases,[54] although it has been held that false allegations of leprosy[55] and imputations of tuberculosis[56] are likewise actionable *per se*. As a rule, false imputations of tuberculosis or consumption are actionable only if they cause special damage.[57]

Among words which may prejudice an individual in the exercise of an occupation are false statements that a vendor of food is selling diseased, contaminated, or poisonous products; or the false statement that a physician is a quack or is dishonest or incompetent.

The truth is a defense to a civil action for statements alleged to be libellous or slanderous. Some statements that appear to be libel or slander are, further, either absolutely or conditionally privileged. Thus, there usually can be no libel or slander in the report of an official proceeding, such as that of a court, legislative body, or administrative board or officer. A board of health or public health officer cannot be held liable for the torts of libel and slander for statements made in good faith in official reports or otherwise in the exercise of their official duties. Nor is a physician liable for libel or slander when he reports a contagious disease such as a venereal disease as required by law, or in accordance with his duties, as in the cases of a private school physician,[58] a ship's doctor,[59] or a physician employed by an attorney to examine a litigant.[60]

54. *Monks* v. *Monks* (1889), 118 Ind. 238, 20 N.E. 744. *Swindell* v. *Harper* (1902), 51 W. Va. 381, 41 S.E. 117. *McDonald* v. *Nugent* (1904), 122 Ia. 651, 98 N.W. 506. *Hamilton* v. *Nance* (1912), 159 N.C. 56, 74 S.E. 627, Ann. Cas. 1914 A 1253. *King* v. *Pillsbury* (1917), 115 Me. 528, 99 A. 513. *Mann* v. *Bulgin* (1921), 34 Id. 714, 203 P. 463. *French* v. *Smith* (1922), 53 Ont. L.R. 28; (1923), 3 D.L.R. 902. *Deese* v. *Collins* (1926), 191 N.C. 749, 133 S.E. 92. *Walker* v. *Tucker* (1927), 220 Ky. 363, 295 S.W. 138, 53 A.L.R. 547. *Sally* v. *Brown* (1927), 220 Ky. 576, 295 S.W. 890. *Connor* v. *Taylor* (1930), 233 Ky. 706, 26 S.W. (2d) 561. *Goldsmith* v. *Unity Ind. Life Insur. Co.* (1930), 13 La. App. 448, 128 So. 182.

55. *Simpson* v. *Press Pub. Co.* (1900), 67 N.Y.S. 401, 33 Misc. 228. *Lewis* v. *Hayes* (1913), 165 Cal. 527, 132 P. 1022, Ann. Cas. 1914 D 148.

56. *Kirby* v. *Smith* (1929), 54 S.D. 608, 224 N.W. 230.

57. *Rade* v. *Press Pub. Co.* (1902), 75 N.Y.S. 298, 37 Misc. 254. *Kassovitz* v. *Sentinel Co.* (1938), 226 Wis. 468, 277 N.W. 177.

58. *Kenney* v. *Gurley* (1923), 208 Ala. 623, 95 So. 34, 26 A.L.R. 813. *Thornburg* v. *Long* (1919), 178 N.C. 589, 101 S.E. 99.

59. *New York & Porto Rico S.S. Co.* v. *Garcia* (1926), 16 F. (2d) 734.

60. *Oakes* v. *Walther* (1934), 179 La. 365, 154 So. 26.

A letter written by a person not in public employment to a state board of health reflecting on the character and qualifications of a candidate for appointment to the position of state food commissioner has been held to be privileged and not libellous, where there was no malice or desire to injure anyone, and the purpose of the communication was to secure the appointment of a person better qualified.[61] A report by the authorities of a Christian Science institution for mental diseases regarding an individual, which was sent to the commissioner of the state department of institutions and agencies, was also held to have been privileged.[62] The patient in this case claimed that he had been forcibly restrained, and otherwise badly and improperly treated.

Since freedom of the press is generally recognized as a constitutional right, reports and comments in newspapers and magazines are usually considered as qualifiedly privileged. Fair comment on matters of public interest is allowable, but indecent, blasphemous, and malicious statements, or improper defamations of personal character, are actionable. Discussions of public health matters, based on facts, usually come within the definition of fair comment, as where a newspaper criticized the sanitation of housing conditions in a large number of dwellings owned by a coal company.[63]

Where, however, a newspaper in reporting a typhoid fever epidemic stated falsely that a certain person working at a dairy was an "importer" of the germs, and it was shown by the testimony of the health officer that he was not in any way involved as a cause of the epidemic, the newspaper was held to be guilty of a statement that was libellous *per se*.[64] The offended dairyman received an award of $600, and the newspaper henceforth ceased to print any news whatever on public health topics. A magazine that published an article stating as a fact that vaccines manufactured and sold by a certain physician were dangerous and had been known to cause death was held to be libellous, since the statements, not being opinions or judgments but allegations of fact imputing disgraceful and discreditable conduct, were not fair comment.[65]

61. *Irian* v. *Knapp* (1913), 132 La. 60, 60 So. 719, 43 L.R.A. (N.S.) 940, 31 Am. Banker R. 891.

62. *Previn* v. *Tenacre* (1933), 70 F. (2d) 389.

63. *South Hetton Coal Co.* v. *N.E. News Ass'n* (1894), 1 Q.B. 133.

64. *Miles* v. *Record Publishing Co.* (1926), 134 S.C. 462, 133 S.E. 99, 45 A.L.R. 1112. *Watkins* v. *Record Publishing Co.* (1926), 134 S.C. 470, 133 S.E. 100. See *Hartmann* v. *Sun Printing Co.* (1902), 77 N.Y.S. 538, 74 App. Div. 282.

65. *Sherman* v. *International Publications* (1925), 212 N.Y.S. 478, 214 App. Div. 437. See *Brinkley* v. *Fishbein* (1932), 134 Kan. 833, 8 P. (2d) 318.

A leading case of libel having a direct public health interest is one decided by the Supreme Court of Utah in 1933.[66] Following an outbreak of typhoid fever in Ogden City, which was investigated by the state health department and attributed to negligent contamination of the city water supply, a local newspaper published news and editorials severely criticizing the local commissioner of waterworks. The newspaper demanded the removal of this allegedly "incompetent" official, charging him with manslaughter because of the deaths of one or more persons from water-borne typhoid, which were stated to be due to the official's failure to comply with definite orders and recommendations of the public health authorities.

In deciding that the statements published in the newspaper were conditionally privileged and that no malicious intent sufficient to support a charge of libel had been found, the court stated:

The publication here in question clearly falls within that class of communications which are qualifiedly or conditionally privileged. When the publication was made, two residents of Ogden City had died from typhoid fever and others were seriously sick with that disease. There was grave danger that the disease would spread. That appellant [the newspaper] and the residents of Ogden City had a common interest in the threatened typhoid epidemic, in its source, and in the prevention of its spread, is not open to question. It is equally clear that appellant and the inhabitants of Ogden had a common interest in fixing, if possible, the responsibility for the outbreak of the disease, and in taking such steps as might be necessary to check its spread and prevent its recurrence. Information concerning the manner in which plaintiff as city commissioner in charge of the waterworks department of the city had been and was handling the city culinary water supply was likewise of common interest to appellant and the citizens of Ogden. . . . Appellant by informing its readers upon such matters was performing a duty which falls within that class mentioned in the rule as "of moral or social character of imperfect obligation."

And later in its opinion this court declared that:

To conclude from the facts disclosed by this record that the one responsible for the turning of Wheeler creek water into the Ogden City water system was guilty of manslaughter, as defined in the trial court's instruction to the jury, may not be said to be unreasonable. That respondent was derelict in his duties if he failed to take measures to see that Wheeler creek water was not turned into the water system during 1929 unless it was chlorinated is not open to question.

In an article entitled, "Modern Medical Charlatans," published in *Hygeia,* the health magazine of the American Medical Association,

66. *Williams* v. *Standard-Examiner Pub. Co.* (1933), 83 Utah 31, 27 P. (2d) 1.

the editor characterized one John R. Brinkley as the "apotheosis of quackery." Dr. Brinkley thereupon brought suit for libel in the United States District Court in Texas. The defendant pleaded the truth of the allegations and proceeded to prove them, with the result that a verdict was rendered for him. On appeal to the Circuit Court of Appeals, this verdict was sustained.[67] After defining a quack as an ignorant or fraudulent pretender to medical skill, the court stated that there was no doubt that the plaintiff by his methods had violated accepted standards of medical ethics, and that the facts were sufficient to support a reasonable and honest opinion that he was a quack in the ordinary, well-understood meaning of those words.

On the other hand, damages were awarded against a magazine which had invaded the privacy of an individual by publishing her picture and an article which described her as an abnormal eater.[68] The court pointed out that if there is any right of privacy at all, it should include the right to obtain medical treatment at home or in a hospital for an individual personal condition, other than a contagious disease, without personal publicity. For this error on the part of the magazine, the award of $1,500 damages was upheld, but an additional $1,500 in punitive damages was disallowed, mainly because no malice had been shown.

Where the personal character of a public health official is falsely and maliciously assailed by a newspaper or by an individual, he may have a valid action for libel or slander.

Copyright

When materials such as articles, books, paintings, music, motion pictures, and other published literary or artistic works are copyrighted, they cannot be reproduced or reprinted without the permission of the copyright owner or owners. Such material is copyrighted by depositing two copies with the U.S. Register of Copyrights in the Library of Congress, Washington, D.C., and paying a fee. When a copyright is issued by the Federal Government, it remains in force for twenty-eight years, with privilege of renewal by the owner or his heirs for a similar period.

Infringement of copyright is a legal wrong, for which an action may be brought in a United States District Court. Articles and books

67. *Brinkley* v. *Fishbein* (1940), 110 F. (2d) 62, cert. denied by U.S. Supreme Court.

68. *Barber* v. *Time* (1942), 348 Mo. 1199, 159 S.W. (2d) 291. See *Gershwin* v. *Ethical Pub. Co.* (1938), 1 N.Y.S. (2d) 904, 166 Misc. 89.

on medical and public health subjects may, of course, be copyrighted.[69] The unauthorized use of the exact order of words of the writer constitutes an infringement, but ideas, opinions, theories, and subjects, no matter how original, are not and cannot be copyrighted. Fair quotation from a published work, with due acknowledgment to the source, is usually not regarded as infringement of copyright.

Voluntary Health Associations

Voluntary health associations are liable for acts of their officers or employees causing injuries or damages to individuals through negligence, breach of contract, or by any other condition giving rise to civil liability. If the health association is incorporated, the corporation will be liable as such. If it is not incorporated, some or all of its officers and members may be jointly or severally liable.

As in the case of a charitable hospital, a health association conducting a service not for profit, such as a free clinic, hospital, camp, or other eleemosynary activity, will not be liable for injuries to persons who are the recipients of its charity. Such an association may, however, be liable for injuries to persons who do business with the association for gain.[70]

Liability for Cancer

Injuries which are alleged to have caused cancer have given rise to numerous court actions. Although there is little, if any, scientific evidence to prove conclusively that malignant growths such as carcinoma, sarcoma, and other forms of cancer are ever caused by single blows, wounds, injuries, or other forms of trauma,[71] the courts have awarded damages in a number of instances to persons who have developed cancers following single injuries.[72] These awards have been granted as a result of medical testimony tending to show that the cancer, usually a sarcoma, was the direct result of the trauma.

69. *Schellberg* v. *Empringham* (1929), 36 F. (2d) 991. *Henry Holt & Co. to use of Felderman* v. *Liggett & Myers Tobacco Co.* (1940), 23 F. Supp. 302.

70. *Wright* v. *Salvation Army* (1933), 125 Neb. 216, 249 N.W. 549.

71. J. A. Tobey, *Cancer, What everyone should know about it,* New York, Knopf, 1932. R. J. Behan, *Relation of Trauma to New Growths: Medico-Legal Aspects,* Baltimore, Williams & Wilkins, 1939.

72. *Sellon* v. *Great Lakes Transit Corp.* (1937), 87 F. (2d) 708. *Vitale* v. *Duerbeck* (1936), 338 Mo. 536, 92 S.W. (2d) 691.

Compensation has also been awarded under workmen's compensation laws for cancers which have been attributed to trauma.[73]

Improper treatment of cancer by unqualified persons has likewise stimulated a number of court actions. A layman who operated a hospital for the treatment of cancer and other diseases, where a secret liquid preparation was administered to cancer patients. was permanently enjoined from practicing medicine,[74] and in a subsequent case was held guilty of contempt of court for having violated the injunction.[75] An injection treatment for cancer given by a chiropractor has been held to be illegal,[76] and a sanipractor who treated and then operated upon a patient with cancer, who died, was convicted of the illegal practice of medicine and surgery.[77] Where a cancer patient was treated unsuccessfully in a hospital by a lay person of his own choice, the hospital was held to be liable for the failure of the treatment permitted to be given in the institution.[78] A licensed physician who cooperated with a layman who operated a so-called cancer hospital in applying a secret paste or escharotic to a patient having cancer was convicted of practicing medicine without a license,[79] while a verdict of malpractice was sustained in the case of a patient who was treated with an escharotic mixture of butter of antimony and zinc chloride.[80]

73. *Canon Reliance Coal Co.* v. *Indus. Comm.* (1923), 72 Colo. 477, 211 P. 867. *Hertz* v. *Watab Paper Co.* (1930), 180 Minn. 177, 230 N.W. 481; 184 Minn. 1, 237 N.W. 610. *Royal Indemnity Co.* v. *Land* (1932), 45 Ga. App. 293, 164 S.E. 492. *Stone* v. *Thomson Co.* (1930), 124 Neb. 181, 245 N.W. 600. *Parker* v. *Farmers Union Mut. Ins. Co.* (1937), 146 Kan. 832, 73 P. (2d) 1032. *Smith* v. *Primrose Tapestry Co.* (1926), 285 Pa. 145, 131 A. 703. *Winchester Milling Co.* v. *Sencindiver* (1927), 148 Va. 388, 138 S.E. 479. *Baker* v. *State Indus. Accid. Comm.* (1929), 128 Ore. 369, 274 P. 905. *Boal* v. *Electric Storage Battery Co.* (1939), 98 F. (2d) 815. *Wayne County* v. *Lessman* (1940), 136 Neb. 311, 285 N.W. 579. *Macon County Coal Co.* v. *Indus. Comm.* (1940), 374 Ill. 219, 29 N.E. (2d) 87. Contra, see *McBrayer* v. *Dixie Mercerizing Co.* (1941), 178 Tenn. 135, 156 S.W. 408.

74. *State* v. *Baker* (1931), 212 Ia. 571, 235 N.W. 313.

75. *State* v. *Baker* (1936), 222 Ia. 903, 270 N.W. 359. See *Baker* v. *U.S.* (1940), 115 F. (2d) 533; cert. denied by U.S. Supreme Court.

76. *In re Hartman* (Cal. 1935), 51 P. (2d) 1104. *State* v. *Cooper* (1938), 147 Kan. 710, 78 P. (2d) 884.

77. *State* v. *Lydon* (1933), 170 Wash. 354, 16 P. (2d) 848.

78. *Hendrickson* v. *Hodkin* (1937), 294 N.Y.S. 982, 250 App. Div. 619; rev. in 276 N.Y. 252, 11 N.E. (2d) 899.

79. *Needham and Bray* v. *State* (1934), 55 Okl. Cr. 430, 32 P. (2d) 92.

80. *Gates* v. *Dr. Nichols Sanatorium* (1933), 34 S.W. (2d) 196; rev. in 331 Mo. 754, 55 S.W. (2d) 424.

Authorities on cancer are agreed that this condition can usually be successfully treated only by means of surgery, or in some cases by radium or x-rays.[81] The application or use of chemicals, salves, drugs, or similar materials has never been efficacious in the treatment and cure of cancer.

81. F. C. Wood, *Cancer,* New York, Funk & Wagnalls, 1937.