MEDICAL DEVICES AND PARAMEDICAL PERSONNEL: A PRELIMINARY CONTEXT FOR EMERGING PROBLEMS*

ARTHUR ALLEN LEFF**

On the morning of June 1st, Joseph K. awakened feeling terrible. When his condition did not improve during the day, his wife called the K. family physician, Dr. George Powers, and Dr. Powers suggested that Mr. K. be brought in to see him. When the K's. arrived, Dr. Powers and his salaried assistant, Dr. Fingerling, examined Mr. K. thoroughly. They could find nothing wrong with him (other than his increasingly oppressive subjective symptoms), but as those symptoms were seriously debilitating, Dr. Powers suggested that Mr. K. check into Central Hospital (a large teaching hospital affiliated with the local medical school) for further tests. During the ensuing several days a vast battery of further diagnostic procedures were carried out by resident physicians, interns, and technicians employed by the hospital. The results of aortography seemed to indicate some possible cardiovascular involvement, and Dr. Powers suggested to Mr. K. that he ought to call in for consultations Dr. Carl Vendome, an eminent local specialist in such matters. Mr. K. consented and Dr. Powers made all the arrangements. On the basis of the test results available to him, together with the results of his own additional tests, Dr. Vendome concluded that Mr. K. was suffering from a partial but increasing blockage of the aorta and that immediate radical surgery was indicated. Through Dr. Powers and Dr. Vendome, Mr. and Mrs. K. hired as surgeon to perform the operation Dr. Charles Service who, after consulting with the K's., arranged with Dr. Oscar Anderson to handle the necessary anesthesia procedures. (Dr. Anderson had offices in Central Hospital, and substantially all of his practice consisted of performing anesthesiological services for physicians performing operations there.)

Since an aortic resection attracted more than usual attention, the operating room the day of the operation was crowded. Present were Drs.

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^{**}Associate Professor of Law, Washington University.

Service and Anderson, Dr. George Respire (resident in anesthesiology), Dr. Morris Kuts (resident in surgery), and Dr. Ernest Oeuf (an intern who had begun his internship on the first of the month). Attending were several nurses, including Geraldine Pant, a nurse-anesthetist who often assisted Dr. Anderson during operations.

Also in the room were two additional looming presences. One was the hospital's new heart-lung machine, designed to take over the patient's circulation during the critical portion of the operation. This machine was to be run by one Thomas Tinker, a non-physician with an undergraduate degree in engineering who had been trained in the use and servicing of such machines at a large Eastern teaching hospital which maintained a school for just such purpose. Mr. K.'s was Mr. Tinker's fifty-first operation.

The second impressive device was the hospital's new anesthesia machine. It was not out of the ordinary except that it was connected to the university's large central computer and was programmed (by employees of the manufacturer after consultation with numerous doctors, including Dr. Anderson) to receive all of the data on the patient's vital life processes during the operation, correlate it, and automatically make anesthesia adjustments on the basis thereof. (Naturally, the machine could be taken off automatic and operated by the anesthesiologist in charge at any time.)

After the operation had been underway for over an hour, and all of the humans present had begun their particular tasks, and all of the supporting devices had been, or were then, in operation, Mr. K. died. The post-mortem examination did not establish the cause of death, but it did establish that whatever else might have been wrong with Mr. K., it was not his aorta, which was as healthy as they come.

Shortly thereafter, having consulted her nephew, an attorney, Mrs. K. sued, naming as defendants Dr. Powers (the internist), Dr. Fingerling (his assistant), Dr. Vendome (the cardiovascular consultant), Dr. Service (the surgeon), Dr. Anderson (the anesthesiologist), Drs. Respire and Kuts (the anesthesiological and surgical residents), Dr. Oeuf (the intern), Nurse Pant (the nurse-anesthetist), all of the other nurses in the operating room, all of the hospital technicians who had ever done any of the tests on Mr. K., Mr. Tinker (the heart-machine operator), the manufacturers of the heart-machine and the anesthesia machine, and the manufacturer, operators, and programmers of the university's computer, along with the hospital and the university itself. In an exceedingly complicated complaint, she included allegations of negligence, malpractice, and breach of warranty, and adverted to theories of res ipsa loquitur, strict liability, apparent authority and respondeat superior. Everyone among the defendants who carried

malpractice insurance notified his insurer, notices of appearance were filed, answers and motions to dismiss prepared, and, once again, the game was on.

The above situation, while wholly fanciful¹ is not strikingly atypical of the factual basis of many modern malpractice actions.² Admittedly it is complicated, involving a large number of persons and sophisticated devices, but so is the practice of much modern medicine.³ What this hypothetical case points up, by intent, is the effect of the fragmentation of medical practice,⁴ with its vastly developed "delegation" of function to other men⁵ and machines,⁶ on any ensuing legal analysis.

In situations wherein a great number of persons are associated in different degrees in the pursuance of a common goal, which, moreover, is

Innumerable more technical studies of modern medical procedure may be culled from the INDEX MEDICUS under the headings "Automatic Data Processing," "Automation," "Technology," "Medical Technology" etc. It is worth pondering that the INDEX MEDICUS itself is compiled and set by computer.

4. See D. Louisell & H. Williams, Trial of Medical Malpractice Cases [hereinafter cited as Louisell & Williams] ¶ 1601, at 489 (1966); H. Nathan, Medical Negligence 61, 123 (1957).

The complexity of organization of a modern hospital is part of the same trend. See M. MacEachern, Hospital Organization and Management (3d ed. 1957); T. Ponton, The Medical Staff in the Hospital (2d ed. M. MacEachern 1953).

- 5. See note 4 supra. Nothing could more clearly illustrate the complexity and fragmentation of responsibility of much of modern medicine than the in situ picture of an experimental heart operation team in the Newsweek article, supra note 3, at 65.
- 6. See Newsweek, supra note 3, passim; Davis, supra note 1, passim for reviews of modern medical devices, their astonishing scope and power. Computers particularly are beginning to come into greater use for a variety of medical procedures from information storage and retrieval to diagnosis. See E. MASON & W. BULGREN, COMPUTER APPLICATIONS IN MEDICINE (1964); Best, The Potential Role of Computers in Medical Practice, 182 J.A.M.A. 994 (1962); Moore, Concept of a Clinical Decision Support System, IBM Technical Report 17-203 (1966); Symposium, 196 J.A.M.A. 927 (1966).

^{1.} That is, not based on any particular reported case. But the only pure invention is the computerized anesthesia machine which (I discovered after I created it) is very little, if at all, in advance of the present art. Davis, *Medical Engineering*, INTERNATIONAL SCIENCE AND TECHOLOGY 18, 29-30 (Sept. 1964).

^{2.} Most of the operating-room res ipsa loquitur and captain-of-the-ship cases presently coming up are posited on facts and procedures like those set forth hypothetically. See text at notes 184-204 infra.

^{3.} For a very recent popular account, see *The New Medicine and its Weapons*, Newsweek 60 (Apr. 24, 1967) [hereinafter cited as Newsweek]. *See also* L. Engel, The Operation (1958) for a step-by-step account of a modern operation, which may be compared with E. Pool & F. McGowan, Surgery at the New York Hospital One Hundred Years Ago (1930).

a goal fraught with intrinsic dangers for another person, the relationship among the associated persons, and the effect upon each one's legal responsibilities of the others' actions, becomes of central importance. In general, as associations of persons became more pervasive and complex, whole new areas and theories of law sprang up to sort out the effect of those relationships. Mass hiring gave rise not only to industrial efficiency, but to labor law. In malpractice law, the coming of partnerships, group practices, specialization, heavily equipped hospitals, and "team" surgery has brought to the fore the rules surrounding the liability of one person for the acts of another; that is, "agency" doctrines.

Somewhat similar has been the general development of law surrounding the vending and use of ever more powerful, complex and inherently dangerous machinery. Just as in the agency area, new rules have had to be developed to allocate responsibility for the failure of machines⁹ and this has been true (though the effect of new conceptual frameworks has been less in that context than elsewhere) in medical casualty cases too.¹⁰

The way in which the law assesses and allocates responsibility for injuries arising out of a procedure must have some effect upon its use and acceptability. The more frequently and absolutely a person is responsible for another person's or thing's errors, the less attractive that delegation will be. But some new delegation techniques may be medically and socially desirable. Specifically, encouraging doctors to delegate more of the things they have heretofore done themselves to mechanical devices and to less highly trained subordinates may improve the public health and welfare. Doctors, viewed mechanistically (which is hardly the only way to view them, but a useful one), are themselves exceedingly costly medical devices. They are expensive to produce, and once produced the hire of their time

^{7.} It was difficult to commit malpractice sitting wringing one's hands at the bedside of a baby with a congenital heart defect; it is easy to do so opening his heart to repair it. Only recently have the really violent and powerful affirmative procedures like openheart surgery been feasible. See Louisell & Williams ¶ 4.03 on "the slip of the knife" and ¶ 4.06 on "Anesthesia Mishaps." See generally id., ¶¶ 19.02-.06 on "The Hazards of Modern Medicine."

^{8.} For a brief review of the growth of respondent superior doctrines, see text accompanying notes 143-45 infra.

^{9.} See Uniform Commercial Code [hereinafter cited as UCC] §§ 2-313—2-318, 2-719; RESTATEMENT (SECOND) TORTS § 402A (1965).

^{10.} On the malpractice-law development of the breach of warranty and strict-liability doctrines, see text accompanying notes 96-122 infra.

^{11.} It must be recalled that a physician is ordinarily the product of over 22 years of education: eight elementary, four high school, four college, four medical school, one internship and one or more (usually more) residency. From the beginning of medical school through his hospital service, the fledgling physician needs exceedingly expensive

comes very dear.¹² During the time they are actively functioning at their profession, they do so in a one-to-one relationship with a particular patient, which means that every moment spent with one patient cannot be spent with another.¹³ Thus, the effective usefulness of a doctor may be obtained, in the ordinary case, by dividing the number of patients needing his services into his available time; and a doctor's time, like everyone's, is one of the few absolutely limited commodities in the world.

This problem may be alleviated by allowing doctors to use their own time only for doing those things for which, because of their intensive and expensive training, they are best suited. Doctors do have to do many things which non-doctors simply cannot do, at least not with anything like the same degree of success. Major surgery needs a surgeon, and (to give the most apposite example) putting together and filtering through one's expertise and experience a pile of physical indicia from a patient such that a "diagnosis" results is hardly a job for a layman. But physicians also do many things which they can do well, but which can also be done well by non-physicians, even by non-professionals, and even, in fact, by machines. In response to the obvious fact, that for many things they are sufficient but not necessary, physicians have always to some extent used non-physicians and machines to do "medical" jobs. To the extent that this form of delegation can be increased, from the time-study aspect at least, medicine may become more efficient.

The use of agents, however, whether human or mechanical, poses some obvious problems. While an assistant may be able to do something that a doctor can do, the doctor may actually, or at least ex hypothesi, be able to do it better. That is not necessarily the case. As for mechanical "assistants," certainly an X-ray machine can "see" a broken bone better than a doctor can. What happens next does depend on the interpretive skill

teachers and teaching materials. See G. EISLE, THE MEDICAL STAFF IN THE MODERN HOSPITAL 405-73 (1966); Caughey, More Medical Students, 198 J.A.M.A. 1105 (1966).

^{12.} See the recent statistical survey of medical earnings in the December 12, 1966 issue of Medical Economics, showing median annual gross earnings of about \$45,000 and median net earnings of about \$30,000.

^{13.} It should not be forgotten, however, that not all of medicine is treatment. If a preventive medical program prevents disease, or a powerful procedure cures it quickly, vast amounts of physician time and patient expense are saved. In other words, poliomyelitis vaccine and penicillin have also "increased physician time" by making its expenditure no longer necessary for certain diseases.

To some extent costs to the patient may also be lessened by various species of group-practice plans, either prepaid or not. See W. MACCOLL, GROUP PRACTICE AND PREPAYMENT OF MEDICAL CARE (1966).

^{14.} It may, however, be a threshold, or reviewing, job for a machine. See Moore, supra note 6.

of the doctor, but the mechanical "seeing" act is the machine's forte. Similarly, it is a common joke (at least among patients) that nurses' injections are better, or at least less painful, than doctors'. There is little reason to doubt that a simple procedure, often repeated, may make the limited operative better at it than one who carries it out only a fraction of the time. But it is often the case that medical delegation brings with it some risks. Even if a nurse can give an injection as well as or better than a doctor, she is unlikely to be able to deal as well with clinically common emergencies like anaphylactic shock. When an intern's infusion starts to infiltrate, it is most likely better for the patient to have a fully trained doctor around to deal with the situation.

As for machines, when they are doing the job they are designed to do, they are fine if they don't break down. But they do break down, and when they do their breakdowns tend to be more total, more secret, and more likely to continue indefinitely on the same wrong path than the errors of human assistants. Machines, in other words, lack flexibility and insight. And their rigidity is a handicap even if they are functioning correctly.

And both human and mechanical assistants suffer from one overriding infirmity of immense practical significance: machines¹⁶ never have any money, and medical helpers hardly ever do.¹⁷ Since the law of torts is designed not solely to affix blame, but in addition to provide recompense to injured parties,¹⁸ the financial limitations of aides and machines creates a continual intense pressure to provide theories by which one can get to a source of reasonable recompense, fault-connected or not. (We shall see how this pressure, joined with the charitable and governmental immunity from suit of many hospitals, has led to some peculiar fillips on standard malpractice concepts.)¹⁹

At any rate, the law has taken cognizance of, and action with regard to, injuries flowing from the use of non-physician and non-human assistants. In broad outline, this response has taken the form of making the person who uses an assistant to extend his scope responsible, under certain circumstances, for any harm inflicted by that use. Whether that legal decision is based on notions of some "fault" in the user, or is only a way of reaching

^{15.} It is fair to note, however, that assembly-line techniques often are not conducive to pride of workmanship.

^{16.} Though their manufacturers and distributors do have money and may be reachable through breach-of-warranty and absolute-liability theories. See text accompanying notes 96-122 infra.

^{17.} Registered nurses employed by physicians start at between \$3,500 and \$4,500 per year. Even employed physicians start at only \$12,000—\$16,000. See note 12 supra.

^{18.} See W. Prosser, Torts § 1, at 6 (3d ed. 1964); 2 F. Harper & F. James, Torts chs. 12 & 13 (1956).

^{19.} Text accompanying notes 182-204 infra.

the pocket best able to serve the law's recompense-producing function, is not of central importance for our purposes (although it will be discussed in connection with medico-legal concepts of respondeat superior later in this paper).²⁰ What is important is that that's the way things are; that is the framework within which the answers to all medical-aide problems must be approached: if one uses a machine or an assistant, one may be legally responsible for the result.

The emphasis above of the words "under certain circumstances," however, was not merely a rhetorical device; this study will be in the main an exploration of what those circumstances are. But it has more precise limitations than that. Since our general interest is in the effect of these delegation devices, and their legal consequences, upon techniques for increasing the amount of effective medical manpower, we will not explore in any detail the responsibility of non-doctors (i.e. manufacturers and distributors) for the acts of medical devices which cause harm. More narrowly still, though it will be necessary to discuss the general liability of physicians, hospitals and other professionals for each other (without that discussion many of our conclusions would vary between the misleading and the incomprehensible), in the light of the extensive treatments of such questions elsewhere, the agency focus of this essay will be on the timidly emerging technique of training non-physician non-professionals (hereinafter often called "paramedicals") to do relatively simple but arguably

^{20.} Text accompanying notes 143-45 infra.

^{21.} But see text accompanying notes 96-122 infra for a brief passing reference.

^{22.} See Louisell & Williams ch. 14; C. Stetler & A. Moritz, Doctor and Patient and the Law ch. 20 (4th ed. 1962) [hereinafter cited as Stetler & Moritz]; L. Reagan & A. Moritz, Handbook of Legal Medicine 28-29 (1956); B. Shartel & M. Plant, Law of Medical Practice § 4-08 (1959); C. Kramer, Medical Malpractice 16-19 (rev. ed. 1965); I. Gordon, R. Turner & T. Price, Medical Jurisprudence 177-83 (3d ed. 1953) (South Africa); H. Nathan, Medical Neoligence ch. 5 (1957) (Great Britain); W. Meredith, Malpractice Liability of Doctors and Hospitals 99-103 (1956) (Canada).

^{23.} These are presently underway operational systems for the training of physicians' assistants, either under auspices of highly reputable organizations like the "school" run by Dr. Eugene A. Stead at the Duke University Medical Center (See Stead, Conserving Costly Talents—Providing Physicians' New Assistants, 198 J.A.M.A. 1108 (1966)) or by profit-making groups like the Missouri School for Doctors' Assistants, Inc., whose "Research Department" recently sent me, unsolicited, a "questionnaire" to fill out to help them "make plans" to meet "the serious shortages of trained people who are needed by DOCTORS, HOSPITALS, DENTISTS AND DENTAL LABORATORIES." [typography in original]. They also have taken newspaper advertisements in the form of enthusiastic answers to questions like "What are my chances for marriage in the Medical or Dental professional field?" See the "General Conclusion and Recommendation," infra for a discussion of licensing or other systems to control the quality of paramedicals.

"medical" procedures.²⁴ The question then is this: to what extent is the use of medical devices and paramedicals to free the time of doctors fostered or inhibited by malpractice law as it is presently understood in the several states? The answer, as we shall see, involves a long and not very limpid story, which starts with a relatively short basic definition.

I. THE MALPRACTICE STANDARD OF CARE

The general duty which a physician owes a patient, the violation of which will support an action for malpractice, is ordinarily stated in terms like the following:

The physican is required to possess that degree of knowledge and skill, and to exercise that degree of care, judgment, and skill, which other physicians of good standing of the same school or system of practice usually exercise in the same or similar localities under like or similar circumstances.²⁶

See Appendix A hereto for citations to recent formulations of the general malpractice standard in most states.

Subsumed under this brief definition are several other difficult and frequently litigated problems, some of which are peripheral to the present study and will not be discussed. For instance, there is a considerable amount of attention paid in reported cases to the "own school" criterion, that is that an osteopath, for instance, must be judged by the procedures currently in force among other osteopaths, not those of medical doctors, chiropractors, or drugless healers. See Stetler & Moritz 310; Ison v. McFall, 400 S.W.2d 243 (Tenn. App. 1964); Bowles v. Burden, 148 Tex. 1, 219 S.W.2d 779 (1949). If, however, a practitioner sets out to do a procedure beyond the competence of his school, he will be held to a physician's standards. See, e.g., Dowell v. Mossberg, 226 Ore. 173, 355 P.2d 624 (1960) (chiropractor and diabetes); Kelly v. Carroll, 36 Wash. 2d 482, 219 P.2d 79 (1950) (drugless healer-physician allowed to testify). Cf. Carney v. Lydon, 36 Wash. 2d 878, 220 P.2d 894 (1950), cert. denied, 340 U.S. 951 (1951) (drugless healer and diabetes). A concommitant of the primary rule is that only osteopaths, for instance, ordinarily are legally competent to give expert testimony against osteopaths. See, e.g., Bryant v. Biggs, 331 Mich. 64, 49 N.W.2d 63 (1951) (physician cannot testify as expert against osteopath). But see Foxton v. Woodmansee, 236 Ore. 271, 388 P.2d 275 (1964) (physicians can testify against osteopaths with respect to Colles' fractures, because both schools have same standards).

The analytic difficulties of this problem, e.g., what if a drugless healer sets out to treat acute diabetes without medication, as the standards of his school require, where the result, on the basis of any current scientific knowledge, has to be a disaster, see Carney v. Lydon, 36 Wash. 2d 878, 220 P.2d 894 (1950), cert. denied, 340 U.S. 951 (1951), are fas-

^{24.} An increasingly important arena for such use, combining sophisticated hardware (e.g. computers) and production-line techniques conducive to the use of paramedical operatives, is the multiphasic screening technique pioneered by the Kaiser Foundation. Sec Collen, Periodic Halth Examinations Using an Automated Multitest Laboratory, 195 J.A.M.A. 830 (1966).

^{25.} The quotation is from Stetler & Moritz 307, citing Lane v. Calvert, 215 Md. 457, 138 A.2d 902 (1958); Moeller v. Hauser, 237 Minn. 368, 54 N.W.2d 639 (1952); Derr v. Bonney, 38 Wash. 2d 678, 231 P.2d 637 (1951).

The most interesting aspect of this definition is the implied power it gives the medical profession to set for itself, by reference to ordinary practices in the profession, the standards by which that profession is to be judged.²⁶ While there are cases indicating that the ordinary and customary may still be found negligent if grossly enough unsafe,²⁷ it is the general rule that if a doctor conducts himself in a particular case in a manner consonant with that of an average physician in similar circumstances, he cannot be deemed negligent.²⁸ This is to some extent as if an ordinary automobile-tort defendant were permitted to defend himself against liability for driving while not watching the road by introducing evidence that everyone where he came from drove that way.

Indeed, since the doctor's responsibility by the ordinary malpractice standard depends upon the profession's ordinary practice, and since the ordinary practice of the profession, except in exceptional cases,²⁰ is considered beyond the comprehension of laymen, it is usually an important requirement of any malpractice case that expert testimony, that is, testimony of a physician, be introduced as to what that customary practice is, and whether the defendant met it.³⁰ That means, since the establishment of that standard and proof of its non-achievement is part of the plaintiff's case, that the plaintiff must procure the services of some physician to testify in his behalf, which necessarily means further that the plaintiff's physician must testify against one of his brethren. Without attempting to assess the full truth of the conspiracy-of-silence charge against the medical profession, a subject upon which hogsheads of ink have been spilled³¹

cinating, but they nevertheless cannot detain us here. It should be noted, however, that somewhat similar questions arise as to the standard of care to be applied to the acts of less-than-professional personnel carrying out arguably medical tasks. See text accompanying notes 240-44 infra.

^{26.} See the exhaustive treatment of this question in McCoid, The Care Required of Medical Practitioners, 12 Vand. L. Rev. 549, 605-14 (1959), particularly id. at 606: "When we examine cases of medical negligence... we find that custom does become, almost exclusively, the measure of due care." See, e.g., Johnston v. Brother, 190 Cal. App. 2d 464, 12 Cal. Rptr. 23 (1961); Kemalyan v. Henderson, 45 Wash. 2d 693, 277 P.2d 372 (1954).

^{27.} The classic and most crowded category of cases where customary practice will not save the defendant physician is that involving sponges (and other debris) left in surgical incisions. See McCoid, supra note 26, at 610-14; Annot., 10 A.L.R.3d 9, 23-31 (1966).

^{28.} See Stetler & Moritz 308-10 for some further discussion of this general proposition and the "exceptions" to it.

^{29.} The sponge-in-the-belly cases are one such category see note 27 supra, but there are numerous others. See Stetler & Moritz 378-83.

^{30.} See Louisell & Williams ¶ 14.02, at 420 (1966); Stetler & Moritz at 378.

^{31.} See Louisell & Williams ¶ 14.02, at 419 n.2 for a partial bibliography.

(much of it acid-based)³² it may safely be stated that in the eyes of plaintiff's attorneys at least, the medical profession shows a perceptible disinclination toward cannibalism. When the problem of expert-witness procurement is complicated by the "same locality" rule, discussed below,33 under which the standard to be proved is that of the locality in which the alleged malpractice took place, so that the plaintiff's witness must be a local doctor or at least competent to testify about local conditions, the tension is brought to an even higher pitch; if cannibalism is eschewed, incestuous cannibalism, especially when the diner hopes to remain in the family, is doubly tabooed. While some of the bite of the expert witness requirement has been dulled by a more permissive attitude toward the doctrine of res ipsa loquitur in malpractice cases,34 and by the allied conception that there are some things a doctor does that are so obviously botched that one does not need any expert to say so,35 expert testimony is still required in the vast majority of cases. (In fact, much of the development of malpractice law cannot be understood at all unless one appreciates this desperate attempt to get to the jury without an expert witness.)

For present purposes, however, the importance of the quasi-subjective malpractice test depends upon certain of its more indirect consequences. What follows from it is that if a particular innovational practice (e.g., use of a new medical device) becomes widespread enough among reputable physicians, or even a respectable group of them, in the relevant area, it will become almost unchallengeable. And what follows from that is that once the bulk of doctors do adopt an innovative procedure, it is, under the ordinary standard, often negligent not to adopt that standard innovation, ³⁶

^{32.} See, e.g., Belli, An Ancient Therapy Still Applied: The Silent Medical Treatment, 1 VILL. L. Rev. 250 (1956); Morris, Res Ipsa Loquitur—Liability Without Fault, 163 J.A.M.A. 1055 (1957).

^{33.} Text accompanying notes 40-48 infra.

^{34.} See Louisell & Williams [14.01, 14.05.

It should be noted that res ipsa loquitur does not prevent the use of expert witnesses in a malpractice case, but only makes it possible, in a variety of situations, to get the plaintiff's case to the jury without the absolute necessity of having an expert on his side. See id., ¶ 14.06, at 438-42.

^{35.} See note 29 supra. See also W. PROSSER, TORTS § 32, at 167 n.46 (3d ed. 1964).

^{36.} Courts often express this "duty to keep up" in language tacked on to their formulation of the ordinary malpractice standard, such as "giving consideration to modern learning," or "with due regard to advances in medical science," or "with due consideration for the state of the profession at the time." See Kingston v. McGrath, 232 F.2d 495 (9th Cir. 1965) (Idaho); Garfield Memorial Hosp. v. Marshall, 204 F.2d 721 (D.C. Cir. 1953); Peterson v. Carter, 182 F. Supp. 393 (D. Wis. 1960); Goheen v.

assuming, of course, that one does not retain a "respectable minority" on one's own side, or that the innovation is not obviously and grossly defective.³⁷ Thus, to some extent the quasi-subjective malpractice standard can operate to encourage innovation: one must keep up with developments among one's colleagues in the relevant geographical area.³⁸

The malpractice standard, however, is more likely to be contra-innovative. If the standard is really "what everyone is doing," then he who chooses to do something else runs some risk in doing so, at least until he has a "respectable minority" with him. This risk, that one's procedures will run afoul of the standards actually in force among one's colleagues, perforce the standards applicable to one's conduct, is intensified by the so-called "locality rule," under which the relevant group of colleagues whose procedures are consulted is in some manner geographically circumscribed. In the great majority of jurisdictions, one's actions as a physician are judgeable by reference to the actions of other physicians in one's own locality, or in one's own locality and similar localities. As noted above, the major practical importance of this rule is para-procedural. Since the question is often presented in the form of whether a "foreign" physician may be allowed to testify as an expert on the plaintiff's behalf, a decision that the local practice and not the "general" practice is relevant may serve to

Graber, 181 Kan. 107, 309 P.2d 636 (1957); Bradshaw v. Blaine, 1 Mich. App. 50, 134 N.W.2d 386 (1965); Oberlin v. Friedman, 5 Ohio St. 2d 1, 213 N.E.2d 168 (1965); Richardson v. Doe, 176 Ohio St. 370, 199 N.E.2d 878 (1964); Smith v. Yohe, 412 Pa. 94, 194 A.2d 167 (1963).

- 37. See Stetler & Moritz 308-10; McCoid, supra note 26, at 559-60.
- 38. See McCoid, supra note 26, at 575-81.
- 39. See Baldor v. Rogers, 81 So. 2d 658 (Fla. 1954), aff'd on rehearing, 81 So. 2d 661 (Fla. 1955); Stetler & Moritz 309.
- 40. See Appendix A hereto where there are collected the geographical tag phrases used in about a hundred cases decided during the last twenty years.
- 41. See Appendix A hereto for the various locutions. Occasionally one will find a third locution on the order of "under like conditions," or "similarly situated," which is most likely roughly similar to "in the same or similar communities." See, e.g., Josselyn v. Dearborn, 143 Me. 328, 62 A.2d 174 (1948); Belk v. Schweizer, 268 N.C. 50, 149 S.E.2d 565 (1966); Bryant v. Dougherty, 267 N.C. 545, 148 S.E.2d 548 (1966). Occasionally also no geographical tag is included in the statement of the applicable standard, see e.g., Jones v. Furnell, 406 S.W.2d 154 (Ky. 1966); Fisher v. Wilkinson, 382 S.W.2d 627 (Mo. 1964), but it is hard to know if the omission is significant when, as in most cases, the locality rule is not an issue in the particular case.

In fact, except when the locality rule is an explicit issue in the case, the precise locution used is unlikely to be reliable as a statement of the jurisdiction's actual position; in numerous cases within a jurisdiction the language used varies from case to case without apparently signaling any material change in the law it supposedly expresses. See, e.g., cases cited in Appendix A hereto from Alabama, Iowa, Louisiana, Oregon, Pennsylvania, Tennessee, Washington and Wisconsin.

force a plaintiff to try to get a local physician to testify against his brethren. But the locality rule may also have the substantive effect of protecting anti-innovative pockets in particular localities. At least in theory, if a new procedure has been thoroughly tested in major metropolitan teaching hospitals, and found to be good, if it is not the kind of thing done in East Cupcake, in East Cupcake it may not be negligent not to do it, and it may even be negligent to do it. And at present this danger is not solely theoretical. Recent cases are still to be found in which the local-standard rule was knowingly and particularly applied, in some cases to the extent that it became issue determinative against one of the parties.⁴² But modern communications, travel and training being what they are, it is unlikely the same-locality, or even the same-and-similar locality rules, will long survive. As early as 1916 one can find explicit recognition being given to the passing of the days of the cut-off country practitioner, 43 and in more recent times one finds more and more a self-conscious shift to at least the "same-or-similar" formulation, 44 more and more qualification of ostensibly geographically limited tests by language about giving "due consideration for the state of the profession,"45 and several explicit rejections of any further need for any geographical qualifications at all.46 As the urbanization and geographical homogenization of the country continues, the standards

^{42.} See Marchlewski v. Casella, 141 Conn. 377, 381, 106 A.2d 466, 468 (1954) ("A country general practitioner should not be expected to use the high degree of skill possessed by eminent physicians living in large cities. . . . "); Harris v. Exon, 161 Kan. 582, 170 P.2d 827 (1946), adhered to on rehearing, 162 Kan. 270, 176 P.2d 260 (1947) (dentist); Bryant v. Biggs, 331 Mich. 64, 49 N.W.2d 63 (1951) (osteopath); Lockart v. Maclean, 77 Nev. 210, 361 P.2d 670 (1961) (California physician not competent to testify about Nevada physician's procedures), specifically followed, Foreman v. Ver Brugghen, 81 Nev. 91, 398 P.2d 993 (1965).

^{43.} See Viita v. Fleming, 132 Minn. 128, 137, sub nom. Viita v. Dolan, 155 N.W. 1077, 1081 (1916):

Frequent meeting of medical societies, articles in the medical journals, books by acknowledged authorities, and extensive experience in hospital work put the country doctor on more equal terms with his city brother.

^{44.} See, e.g., Yeates v. Harms, 193 Kan. 320, 393 P.2d 982 (1964) ("Not only in the community where he practiced but in similar communities").

^{45.} See, e.g., Bradshaw v. Blaine, 1 Mich. App. 50, 134 N.W.2d 386 (1965) and additional cases cited in note 36 supra.

^{46.} See Murphy v. Little, 112 Ga. App. 517, 522, 145 S.E.2d 760, 763-64 (1965) ("... ordinarily employed by the profession generally and not... in the locality or community."); Darling v. Charleston Community Memorial Hosp., 33 Ill. 2d 326, 211 N.E.2d 253 (1965), aff'g 50 Ill. App. 2d 253, 200 N.E.2d 149 (1964) (no error in refusal to charge "customary standards of the community"); Josselyn v. Dearborn, 143 Me. 328, 63 A.2d 174 (1948) (no need to include specific reference to locality in charge); Lane v. Calvert, 215 Md. 457, 138 A.2d 902 (1958) ("others in the profession generally").

applicable to medical practice ought to become more and more a geographical fungible, with a national standard,⁴⁷ as current as the date the latest number of the New England Journal of Medicine is received on the Dakota prairie, in force to test the physician's judgment.⁴⁸ And with that waning of the locality test the possibility of anti-innovative localities will necessarily decline.

At any rate, the primary significance of the present malpractice test is that under it, it is almost within the power of the physicians themselves to determine whether innovations (e.g., use of paramedicals) will eventually be considered proper⁴⁹ subject almost to no obstacle but their own corporate professional judgment. Well, almost. As will be seen anon, there is one factor which might serve effectively to prevent the use of paramedicals for "medical" procedures, no matter what the opinion of the profession might be: the side effect of professional licensing statutes in the various states.⁵⁰ But before the paramedical complications are attempted, it would be well first to describe the less extensive legal complexities surrounding the use of advanced and innovational medical devices.

II. MALPRACTICE ASPECTS OF THE USE OF ADVANCED MEDICAL DEVICES

In a vast majority of malpractice cases the behavior of a person rather than a device is the issue.⁵¹ In a vast number of cases, of course, a device of sorts is involved, but the ordinary malpractice rules cover human misuse of a device as well as negligence in a non-mechanical procedure, e.g., differential diagnosis. A scalpel, for instance, is a device, a non-human extension of the surgeon's powers, and the slipping or misdirected scalpel is central to a huge number of malpractice cases,⁵² but in none of them

^{47.} See AMA Law Division, Diminishing Importance of Community Rule as to Expert Witnesses, 198 J.A.M.A. 291 (1966).

^{48.} It is also worth pointing out that most malpractice cases seem to come out of the great metropolitan states. See Louisell & Williams, Appendix C, listing cases by jurisdiction. It is hardly much help to a Boston, New York, Chicago, St. Louis or Los Angeles physician, for instance, to have the charge state that he need only meet the standards in force in his own little town.

^{49.} There are, however, quite well developed limitations upon the powers of doctors to experiment upon their patients. See generally CLINICAL INVESTIGATION IN MEDICINE: LEGAL, ETHICAL AND MORAL ASPECTS (Ladimer & Newman eds. 1963), which includes an extensive bibliography on the subject at 493-516.

^{50.} See text accompanying notes 237-44 infra.

^{51.} See, e.g., Welsh v. Mercy Hosp., 65 Cal. App. 2d 473, 151 P.2d 17 (1944) (catching patient's finger in adjustable bed); Quillen v. Skaggs, 233 Ky. 171, 25 S.W.2d 33 (1930) (putting patient onto too hot hot-water bottle); Clemens v. Smith, 170 Ore. 400, 134 P.2d 424 (1943) (failing to sterilize instruments).

^{52.} See Louisell & Williams, Appendix A, at 595-722 for a massive list of malpractice cases classified by type of mishap.

was it alleged that the scalpel failed of its essential purpose, to cut. Instead the theory has been that it cut all right, but it cut the wrong thing.

Naturally, the more complicated the device the more it is called upon to do, and thus the more things it can fail to do or do wrong. But even with regard to most complicated devices the range of its discretion is limited. Even a computer's "discretion" is a matter of human programming, and the failure to cope with a new problem is, barring mechanical breakdown, hardly the computer's "fault." When, for another instance, an X-ray machine delivers a massively excessive or badly aimed or unnecessary dose, it is likely to be the operator's or prescriber's fault, and not assignable to any breakdown of the machine. Thus, most cases involving the infliction of harm by medical device are cognizable under the rules ordinarily applicable to malpractice in general. What is in issue is the skill and judgment in the particular case of the doctor-user of the device. 54

But there are cases in which the correct functioning of a machine is relevant without any necessary reference to the actions of the user.⁵⁵ For instance, it is certainly correct medical procedure to use an X-ray machine to determine bone position after a serious leg fracture; it may be negligent not to do so.⁵⁶ Let us assume further that the radiologist operating the machine correctly prepares the patient and adjusts and aims the machine. If, through the malfunction of a dosage governor or guard on the device itself,⁵⁷ the patient receives an excessive dose of X-rays and receives an X-ray "burn," who, if anyone, is responsible in law to the injured patient?

^{53.} See Moore, supra note 6.

^{54.} Naturally, the knowing use of a dangerously defective product or device clearly meets the ordinary malpractice standard. See, e.g., Shepherd v. McGinnis, 257 Iowa 35, 131 N.W.2d 475 (1964) (use of contaminated sutures).

^{55.} For a recent collection of cases, see Campbell, Defective Surgical Instruments and Medical Products, 12 Defence L.J. 249 (1963) and editorial note, id. at 268-72; Annot., 14 A.L.R.3d 1254 (1967). See also Annot., 14 A.L.R.3d 967 (1967) on special problems arising out of the increased use of prosthetic devices.

^{56.} See Kingston v. McGrath, 232 F.2d 495 (9th Cir. 1956); Dietze v. King, 184 F. Supp. 944 (E.D. Va. 1960); Agnew v. City of Los Angeles, 97 Cal. App. 2d 557, 218 P.2d 66 (1950); Butts v. Watts, 290 S.W.2d 777 (Ky. 1965); Note, 11 Clev.-Mar. L. Rev. 266, 267 n.6 (1962).

Compare the similar cases involving an alleged duty to have up-to-date machinery, both in effectiveness and safety, e.g., Huffman v. Lindquist, 37 Cal. 2d 465, 234 P.2d 34 (1951) (en banc) (pulmotor); Durney v. St. Francis Hosp., 46 Del. 350, 83 A.2d 753 (1951) (incubator); McInerny v. St. Luke's Hosp. Ass'n, 122 Minn. 10, 141 N.W. 837 (1913) (laundry mangle); Milner v. Huntsville Memorial Hosp., 398 S.W.2d 647 (Tex. 1966); Medical & Surgical Memorial Hosp. v. Cauthorn, 229 S.W.2d 932 (Tex. Civ. App. 1949) (heated cradle). But cf. Marchlewski v. Casella, 141 Conn. 377, 106 A.2d 466 (1954) where a proposed instruction that failure to use an existing safety device was negligence was refused.

^{57.} See, e.g., Heberle v. P.R.O. Liquidating Co., 186 So. 2d 280 (Fla. Dist. Ct. App.

A. The Ordinary Standard

With respect to both owner and operator (assuming they are not the same) of any mechanical medical device⁵⁸ the general rule determining responsibility for its malfunction is roughly the same: if one did not know, nor through the exercise of reasonable care could have learned, of the machine's infirmity, one is not liable for the resultant injury.⁵⁰ In other words, it is ordinarily necessary to prove that someone was negligent, not merely that something went wrong. Put in these terms, the relevant factual inquiry usually resolves itself into determining whether the defect was patent or latent, 60 and if the latter, whether reasonably thorough and frequent inspections and tests had been made. 61 There is a world of practical difference between an absolute duty to provide reasonably safe equipment and a reasonable duty to supply absolutely safe equipment. 62 In some areas of the law the former seems to govern, and liability may be assessed upon the mere proof that the device in question was in fact not reasonably safe. The admiralty quasi-tort doctrine of seaworthiness, for instance, seems to have turned into such a doctrine. 63 But the medical-device area seems to be governed primarily by the latter rule, and if one has done all that one ought to have done to assure that a device was safe, one is not liable merely because it turned out in the particular case not to be so.

In practice the test assessing liability for failure to know or inquire of mechanical insufficiency operates differently when applied to machine

^{1966);} Street v. Hodgson, 139 Md. 137, 115 A. 27 (1921); Gross v. Robinson, 203 Mo. App. 118, 218 S.W. 924 (1920).

^{58.} I shall be using the term "mechanical" rather loosely throughout, merely to indicate non-human activity, and not in contradistinction to "electronic," for instance. Thus even a computer, the very feasibility of which depends upon its not being "mechanical" in the narrow sense, may be referred to as a species of mechanical device.

^{59.} See, e.g., Durant v. Grace-New Haven Community Hosp., 20 Conn. Supp. 19, 119 A.2d 743 (Super. Ct. 1955); Nelson v. Swedish Hosp., 241 Minn. 551, 64 N.W.2d 38 (1954); Rosen v. Bronx Hosp., 308 N.Y. 925, 127 N.E.2d 82 (1955); Payne v. Garvey, 264 N.C. 593, 142 S.E.2d 159 (1965); Orthopedic Clinic v. Hanson, 415 P.2d 991 (Okla. 1966); Smith v. American Cytoscope Makers, 44 Wash. 2d 202, 266 P.2d 792 (1954).

^{60.} See, e.g., Clary v. Christiansen, 54 Ohio L. Abs. 254, 83 N.E.2d 644 (Ct. App. 1949); Tennant v. Barton, 164 Wash. 279, 283, 2 P.2d 735, 737 (1931) ("... neither examined for patent defects nor tested for latent ones.")

^{61.} See, e.g., Baker v. Board of Trustees, 133 Cal. App. 243, 23 P.2d 1071 (1933); Nelson v. Swedish Hosp., 241 Minn. 551, 64 N.W.2d 38 (1954); Sivertsen v. State, 43 Misc. 2d 978, 252 N.Y.S.2d 623 (Ct. Cl. 1964), aff'd, 28 App. Div. 2d 571, 279 N.Y.S.2d 233 (1967).

^{62.} Though courts are not always clear on the distinction. See, e.g., Holtfoth v. Rochester Gen. Hosp., 304 N.Y. 27, 105 N.E.2d 610 (1952).

^{63.} See Gutierrez v. Waterman S.S. Co., 373 U.S. 206 (1963); Mitchell v. Trawler Racer, Inc., 362 U.S. 539 (1960).

users than when applied to machine owners. First, some defects are noticeable enough upon close visual inspection but not at a casual glance; a doctor handed an electric cautery in an operating room might not be negligent in failing to notice, in the midst of an operative procedure, a dangerously frayed electrical wire which causes a shock and burn to the patient. The hospital, however, through its servants' more frequent and leisurely contact with the device, might well be charged with their failure to note the defect; the hospital will in fact be deemed to know whatever any of its agents or servants know about previous malfunctions. Further, it is not reasonable to expect a user of a device supplied by another to test it for latent defects before every use, even if he has the time to do so in the particular case, but it is quite reasonable to expect the owner of a device to be used in intimate connection with a human body to subject it to some periodic examination and testing. 66

Despite this qualification of the rule's practical operation, the rule itself may be stated identically for owner and user; there must be some unjustified failure to know or inquire. There is a somewhat restricted liability then. If nothing else, it seems to grant immunity for each device's first breakdown (assuming the defect is not grossly patent and reasonably timely inspections have been made) 67 much like the first free bite allowed to each non-patently-vicious dog. 68 If the defect in the machine was not patent, and it led to a breakdown within a reasonable time after the device's last reasonably thorough inspection, it is likely that the injury to the patient, under the ordinary rule, will go uncompensated.

If, however, a rule of law were to be applied whereby the machine's malfunction made its owner and/or user liable without more (except, of

^{64.} See Delling v. Lake View Hosp. Ass'n, 310 Ill. App. 155, 33 N.E.2d 915 (1941); ef. Taylor v. Beekman Hosp., 270 App. Div. 1020, 62 N.Y.S.2d 637 (1946) (short circuited X-ray machine); Smith v. American Cytoscope Makers, 44 Wash. 2d 202, 266 P.2d 792 (1954) (short circuited cytoscope).

^{65.} Sec, e.g., Volk v. City of New York, 284 N.Y. 279, 30 N.E. 2d 596 (1940); Stafford v. St. Clair's Hosp., 19 Misc. 2d 710, 189 N.Y.S.2d 351 (Sup. Ct. 1959).

^{66.} See Ratcliffe v. Wesley Hosp., 135 Kan. 306, 10 P.2d 859 (1932); Covington v. Wyatt, 196 N.C. 367, 145 S.E. 673 (1928); Abercrombie v. Roof, 64 Ohio App. 365, 28 N.E.2d 772 (1940). See also Stafford v. St. Clair's Hosp., 19 Misc. 2d 710, 189 N.Y.S.2d 351 (Sup. Ct. 1959) (hospital liable, and surgeon not liable, for defective operating room lamp); Clary v. Christiansen, 54 Ohio L. Abs. 254, 83 N.E.2d 644 (Ct. App. 1948) (physician did test device, but hospital switched devices on him prior to use).

^{67.} See, e.g., Johnston v. Black Co., 33 Cal. App. 2d 363, 91 P.2d 921 (1939). But see Crowe v. McBride, 25 Cal. 2d 318, 153 P.2d 727 (1944) (duty to shield therapeutic light bulb which had never exploded before).

^{68. 2} F. Harper & F. James, Torts § 14.11, at 836-37 (1956); W. Prosser, Torts § 75, at 515-16 (3d ed. 1964).

course, proof of causation), or at the very least increased the owner's or user's trial burden significantly, the world viewed over the shoulder of a plaintiff's lawyer would appear considerably rosier. Thus it should come as no surprise that assaults have been consistently launched in general, and in malpractice contexts, seeking to have the usual rule supplanted by one which involves or at least approaches a doctrine of per se liablility for the malfunction of mechanical devices. They have usually fallen under three headings: (1) res ipsa loquitur; (2) breach of warranty; and (3) strict liability (or "liability without fault").⁶⁹

B. Res Ipsa Loquitur

If a simile is desired, the doctrine of res ipsa loquitur resembles most a can of worms, not only because of the complexity of relationships among its various strands but also because they are still wiggling into new arrangements. The literature on the subject is, to speak mildly, enormous, of and the general topic will not be described or analyzed in depth or detail here. In light, however, of the respectable number of cases in which res ipsa loquitur has become an issue in cases involving medical-adjunct devices, brief discussion is required.

The common sense basis of res ipsa loquitur is the recognition that, in certain circumstances, the fact that an injurious accident took place raises a reasonable (as opposed to merely legal) presumption that someone has been negligent. If one enters an operating room to have one's diseased left kidney out, and one leaves with his left kidney in place and his right one gone, it is not unreasonable to suggest that someone has made an error. Similarly, if one enters an operating room with his abdomen containing nothing but the usual complement of internal organs, and comes out with that array intact, but now conjoined with a sponge, a scalpel and a coat button, the same suspicion springs to the reasonable man's mind.⁷² But

^{69.} The doctrine of "lack of informed consent" also functions sometimes as a per se doctrine insofar as under the rubric "assault and battery" no proof of negligence is needed to charge the allegedly errant practitioner (though what information will "inform" is generally measured by the standards of the profession, i.e., a negligence test). This doctrine is not limited, of course, to failing-device cases, and is only tangentially related to the subject of this paper. A superficial discussion will be found in note 123 infra.

^{70. 3} F. Harper & F. James, Torts (1956) contains a select bibliography on the subject at pp. 967-68 and Louisell & Williams has two entire chapters, XIV and XV, devoted to the medical aspects alone.

^{71.} See Annot., 82 A.L.R.2d 1262, 1340 (1962).

^{72.} It is not meant to be suggested that such gross-error cases necessarily fit the res ipsa loquitur mold as developed by the courts, but only to suggest that certain types of results by themselves do imply someone's mistake. A classic statement is from Pillars

it is also obvious that not all harm is the result of negligence. If surgeons open a patient to repair an arterial aneurism, and the aneurism blows in the course of the operation, it is hardly a necessary conclusion that someone's blunder killed the patient. Thus, before a particular harmful occurence can "speak for itself" and say "negligence," it is obvious that the facts fit a particular pattern.

The courts have attempted to codify and generalize the pattern which will justify the use of res ipsa loquitur by indicating that it is justified when:

- (a) The accident is of a kind which ordinarily does not occur in the absence of someone's negligence;
- (b) the apparent cause of the accident is such that the defendant would be responsible for any negligence which did take place;
- (c) the possibility of contributory negligence by the plaintiff is eliminated; and
- (d) [in only some formulations] the relevant evidence is more readily available to the defendant than to the plaintiff.⁷³

Even this brief and superficial statement of the doctrine points up that in some ways it is made to order for application in medical malpractice contexts. The very term "patient" serves to emphasize the requisite passivity of the eventual malpractice plaintiff. Pleas of contributory negligence, even successful ones,⁷⁴ are not unheard of in malpractice cases, but in the nature of medical treatment it is rare that the patient's role is more than to lie there and take it. Moreover, except in some operating room teamsurgery cases,⁷⁵ and in a few other successive responsibility situations,⁷⁶ the usually required one-to-one doctor-patient relationship ordinarily makes it quite easy to determine who would be responsible for whatever negligence did take place. (It must be recalled at this point that responsibility often extends beyond one's own acts to cover the acts of other persons).⁷⁷

v. R. J. Reynolds Tobacco Co., 117 Miss. 490, 500, 78 So. 365, 366 (1918): "... if toes are found in chewing tobacco, it seems to us that somebody has been very careless." See also 2 F. HARPER & F. JAMES, supra note 68, § 19.4 (1956) on circumstantial evidence.

^{73.} This statement is very freely adapted from that in W. PROSSER, TORTS § 39 at 218 (3d ed. 1964), which is not, for our purposes at least, materially different from that in 2 F. Harper & F. James, supra note 68, §§ 19.6-19.9. Both such formulations reject the fourth listed criterion. See W. PROSSER, supra, § 39, at 229-30; 2 F. Harper & F. James, supra, § 19.9. See also 9 J. Wigmore, Evidence § 2509 (3d ed. 1940) a section subtitled, interestingly enough, "Defective Machines, Vehicles and Apparatus." Id. at 377.

^{74.} See, e.g., Hanley v. Spencer, 108 Colo. 184, 115 P.2d 399 (1941). See generally LOUISELL & WILLIAMS ¶ 9.03; Comment, 12 CLEV.-MAR. L. REV. 455 (1963).

^{75.} E.g., the leading case of Ybarra v. Spangard, 25 Cal. 2d 486, 154 P.2d 687 (1944).

^{76.} See notes 156-59 infra.

^{77.} See "Medico-Legal Agency Doctrines" infra.

Moreover, to the extent that the fourth listed requirement has any validity, it is often particularly easily met in medical cases, if only because the plaintiff-patient was unconscious, in sensor-debilitating pain, or just plain radically confused at the time of the allegedly negligent event (not to mention the fact that after that event he is often dead). In fact some fact patterns giving rise to medical malpractice cases present almost uniquely well situations in which one party to a lawsuit between two mentally competent adults knows much more about the critical happening than the other.

The requirement which does limit the application of res ipsa loquitur in medical cases is, of course, the first, that the accident be of the kind which would ordinarily not occur but for someone's negligence. This limitation expresses itself in two modes. First, almost any medical procedure involves some risk that harm will occur even if no one makes any mistakes. Much of modern medicine depends upon relatively violent interference with the body and with normal bodily processes (including death).78 Pyribensamine reaction following anesthesia can occur and run its course without fault⁷⁹, and other rare allergic reactions occur against which even a very high standard of preparation and care is no bulwark.80 Nerves are not always where they ought to be (a failing they share with blood vessels), and hearts do not always consent to whisper all of their hidden secrets to electrocardiographs, preferring instead to express their inner discontents for the first time on an operating table. Briefly, the practice of modern medicine provides an ample opportunity for horrible results attributable to no man's error. Moreover, whether these results are attributable to negligence can ordinarily be established, in medical cases, only by the testimony of medical experts.81 Thus the expert-witness rule would continue to harass plaintiffs in most cases involving alleged malpractice even if res ipsa loquitor was allowed, except in cases of the grossest negligence.

One would not like to indicate, however, that there are no medical accidents which can "speak for themselves" without the help of a medium with an M.D. It would be difficult seriously to contend that one needs a

^{78.} It might be mentioned at this time that one possible cause of the increased number of malpractice cases, perhaps insufficiently stressed, is that only relatively recently has medicine progressed to the point where it has the dangerous techniques to deal with otherwise fatal bodily malfunctions. As indicated in note 7 supra, one could hardly be liable in pre-antibiotic days for sitting by the bedside of a sick child, wringing one's hands while the baby expired. Nowadays when an infant has a heart defect, surgeons can supply a substitute bloodstream and operate directly on the heart. See, e.g., Thompson v. Lillehei, 164 F. Supp. 716 (D. Minn. 1958), aff'd, 273 F.2d 376 (8th Cir. 1959). Such surgery is risky, but absence of such surgery may be fatal.

^{79.} See, e.g., Morgensen v. Hicks, 253 Iowa 139, 110 N.W.2d 563 (1961).

^{80.} See, e.g., Fisher v. Wilkinson, 382 S.W.2d 627 (Mo. 1964).

^{81.} See 2 F. HARPER & F. JAMES, supra note 68, § 17.1 at 968-69.

qualified medical expert to explain to the jury that a reasonably competent surgeon in the same locality would have been able to tell which was the left kidney to take out and which was the right one to leave in. And the courts have been more or less willing to allow debris-in-the-belly cases to go to a jury under a res ipsa loquitor instruction,82 or at least to go to the jury without the need for a plaintiff's expert witness.83 Applying the doctrine to faulty-machinery cases, however, though not unheard of84 is not easy either. The problem is that the best designed, best cared for machinery in the world is subject to mysterious breakdown. Thus, the only way to make the fact of breakdown proof of someone's negligence is to take the position that certain machines (for instance medical-adjunct machines) should be designed and cared for such that they never break down while being used. But it takes no extended course in logic to see that taking that position is, technically, assuming one's conclusion, and to assume it just to make the res ipsa loquitur doctrine applicable is a particularly cumbersome way to go about it. After all, if one is going to make a party absolutely liable for mechanical breakdown, that is, to invent a new doctrine like seaworthiness⁸⁵ (perhaps called healthworthiness) it is a lot easier to do so directly. If one continues to postulate, however, that the owner or user of a machine is not responsible for the results of any breakdown unless they themselves were guilty of some failure of reasonable inquiry, then the proof of breakdown should be wholly insufficient to charge them with liability. On classical theory, if an X-ray machine goes beserk the day after a thorough examination, 86 or a table suffering from secret crystallization of the sinew collapses, 87 the owner is not liable.

^{82.} See, e.g., Dietze v. King, 184 F. Supp. 944 (E.D. Va. 1960).

^{83.} See, e.g., Scardina v. Colletti, 63 Ill. App. 2d 481, 211 N.E.2d 762 (1965) (dictum).

Note the insightful recognition in Sawyer v. Jewish Chronic Disease Hosp., 234 N.Y.S.2d 372 (Sup. Ct. 1962), that errors that "speak for themselves" tend to be gross errors too:

^{...} the term [res ipsa loquitur] is often used in malpractice cases where what is meant is that the evidence is clear enough to be comprehended by laymen without the aid of expert testimony." Id. at 374.

See also Hasemeier v. Smith, 361 S.W.2d 697 (Mo. 1962) (en bane) for a clear implication that res ipsa loquitur can be used in a malpractice case only when the inference of negligence can be drawn "based on the common knowledge or experience of laymen," i.e., when the error is a gross error.

^{84.} See, e.g., South Highlands Infirmary v. Camp, 279 Ala. 1, 180 So. 2d 904 (1965).

^{85.} See text accompanying note 63 supra.

^{86.} See W. Prosser, supra note 68, § 39 at 232 n. 24 for the courts' decreasing willingness to find negligence merely because of X-ray burn as their knowledge about roentgenography increased.

^{87.} See Johnston v. Black Co., 33 Cal. App. 2d 363, 91 P.2d 921 (1939).

Another weakness of res ipsa loquitur when applied to medical-machinery cases (or, for that matter, to machinery cases in general) may be illustrated with respect to what is perhaps the most common failing-device situation of them all, the inserted object (usually a hypodermic needle) which breaks in the patient. Obviously a needle's demise may be attributable to inherent manufacturing vice (whether negligent or not in origin), or to the treatment it received after it came into the possession of the user. Thus logically, the second requirement for the invocation of res ipsa loquitur, that the defendant be the one responsible for any negligence which occurred is not met. And since that particular rule is based on arguably sound policy, that neither spatial nor temporal proximity alone should charge someone as liable for harm, the manufacturing, distribution and use progression of most devices seems logically to rule out of failing-device cases res ipsa loquitur and other quasi-per-se-negligence formulations.

Not all courts have seen things that way, however. Some have merely permitted the theory without much discussion. Others seem to have been working under some unarticulated belief in an absolute duty to furnish absolutely adequate devices. A greater number have noted the res ipsa

^{88.} See Inouye v. Black, 238 Cal. App. 2d 31, 47 Cal. Rptr. 313 (1965) (surgical wire); Steinmetz v. Humphrey, 289 Ky. 709, 160 S.W.2d 6 (1942); Ernen v. Crofwell, 272 Mass. 172, 172 N.E. 73 (1930); Taylor v. Milton, 353 Mich. 421, 92 N.W.2d 57 (1958) (catheter); Zanzon v. Whittaker, 310 Mich. 340, 17 N.W.2d 206 (1945) (drill point); Williams v. Chamberlain, 316 S.W.2d 505 (Mo. 1958); Mitchell v. Poole, 229 Mo. App. 1, 68 S.W.2d 833 (1934); Mandelbaum v. Weil, 208 App. Div. 409, 203 N.Y.S. 289 (1924); Shoumatoff v. Wiltbank, 226 N.Y.S.2d 576 (Sup. Ct. 1962); Kaplan v. State, 198 Misc. 62, 95 N.Y.S.2d 890 (Ct. Cl. 1950) (drill point).

^{89.} The logic of the situation seems to have prevailed in the following cases: Farber v. Olkon, 40 Cal. 2d 503, 254 P.2d 520 (1953) (shock machine); Inouye v. Black, 238 Cal. App. 2d 31, 47 Cal. Rptr. 313 (1965) (surgical wire); Johnston v. Black Co., 33 Cal. App. 2d 363, 91 P.2d 921 (1939) (fluoroscope table); Steinmetz v. Humphrey, 289 Ky. 709, 160 S.W.2d 6 (1942) (needles); Ernen v. Crofwell, 272 Mass. 172, 172 N.E. 73 (1930) (needle); Williams v. Chamberlain, 316 S.W.2d 505 (Mo. 1958) (needle); Mitchell v. Poole, 229 Mo. App. 1, 68 S.W.2d 833 (1934) (needle); Wilt v. McCallum, 214 Mo. App. 321, 253 S.W. 156 (1923) (anesthesia machine); Shoumatoff v. Wiltbank, 226 N.Y.S.2d 576 (Sup. Ct. 1962) (needle); Kaplan v. State, 198 Misc. 62, 95 N.Y.S.2d 890 (Ct. Cl. 1950) (drill point); Cooper v. McMurry, 194 Okla. 241, 149 P.2d 330 (1944) (X-ray machine); Stemons v. Turner, 274 Pa. 228, 117 A. 922 (1922) (X-ray machine).

^{90.} See Hurt v. Susnow, 192 P.2d 771 (Cal. App. 1948) (silver nitrate pencil); Davison v. Bernarr MacFadden Foundation, Inc., 4 App. Div. 2d 978, 167 N.Y.S.2d 784 (1957) ("treatment" table). Or in some cases the question of responsibility for an allegedly defective device or alleged negligence in using or maintaining it, gets to the jury without much more than a general negligence allegation behind it. E.g., Steckdaub v. Sparks, 231 S.W.2d 160 (Mo. 1950) (falling table).

^{91.} See South Highlands Infirmary v. Camp, 279 Ala. 1, 180 So. 2d 904 (1965).

requirement that the failure be assignable to the defendant, but have managed to find some self-satisfying form of words around it anyway.⁹²

Even when a res ipsa loquitur formulation has been allowed, however, the mere permission to submit one's case without proof of specific negligent acts, even if coupled with exemption from the usual expert-medicalwitness rule, only serves to get the plaintiff to the jury; it does not necessarily get him to a favorable verdict. Whether submission on a res ipsa loquitur theory merely permits an inference in the plaintiff's favor, or raises a presumption on his behalf, or shifts to the defendant the burden of coming forward with contrary evidence, or even shifts the burden of persuasion to the defendant,93 it has never been suggested that the defendant was debarred from coming forward with evidence to disprove his own negligence.94 In these failing-device cases that defense would tend to take the form of proof of (a) latentness of defect; (b) lack of notice of defect; and (c) reasonably careful and frequent inspections. And one would suppose that this evidence, if credible and unopposed by contrary credible evidence, would justify a direction in favor of the defendant-unless the court were really hiding under the rubric res ipsa loquitur another theory altogether, an unarticulated idea of the required healthworthiness of medical machinery.95

^{92.} See Dodson v. Pohle, 73 Ariz. 186, 239 P.2d 591 (1952) (vaporizer); Martin v. Aetna Cas. & Sur. Co., 239 Ark. 95, 387 S.W.2d 334 (1965) (wheel chair); Dierman v. Providence Hosp., 31 Cal. 2d 290, 188 P.2d 12 (1947) (electric needle) (Traynor, J. dissented strongly); Owens v. White Memorial Hosp., 138 Cal. App. 2d 634, 292 P.2d 283 (1956) (bed); Ball Memorial Hosp. v. Freeman, 245 Ind. 71, 196 N.E.2d 274 (1964) (anesthetic) (dictum reference to automation equipment, 245 Ind. at 78 n. 1, 196 N.E.2d at 278 n.1).

Also interesting is Patrick v. Sedwick, 391 P.2d 453 (Alas. 1964) where the court explicitly rejected res ipsa loquitur because the injury was not the sort which occurred only through negligence, 391 P.2d at 456 n. 8, but used classical post hoc ergo propter hoc reasoning in finding that the plaintiff had made out a prima facie case merely by showing that she went into the operating room for a subtotal thyroidectomy with a soft feminine voice and came out hardly able to talk at all, and this despite expert testimony that such would be the result without any negligence in one to five percent of all similar procedures. This decision so horrified the malpractice insurers that they almost refused to write any more in Alaska and a special statute [Alaska Laws 1967, Ch. 49 (March 28, 1967)] had to be passed to make clear that causation was still part of the plaintiff's burden. See 15 Citation 125 (July 31, 1967).

^{93.} On the vexed question of just what the procedural effect of res ipsa loquitur might be, see 2 F. Harper & F. James, supra note 68, §§ 19.11-19.12; Louisell & Williams ¶¶ 14.05, 15.01-15.08, especially ¶ 15.03 detailing what a swampland the procedural question presently is; W. Prosser, supra note 68, § 40; J. Wigmore, supra note 73, § 2509.

^{94.} Consult sources in note 93 supra, and Louisell & Williams ¶ 14.08. See, for a successful recent rebutting, Landerman v. Hamilton, 230 Cal. App. 2d 782, 41 Cal. Rptr. 335 (1964) (disc allegedly ruptured during cervical operation).

^{95.} Cf. Louisell & Williams ¶ 14.07, at 450-452.

There can be no doubt that the doctrine of res ipsa loquitur is some help, albeit sporadic and unpredictable, to a patient complaining of injury through the failure of a defective medical device, and the doctrine thus constitutes a similarly uncertain risk for the user of such devices. But if plaintiffs are to be certain of victory solely on the basis of mechanical failure coupled with proof of causation, they are going to need something beyond res ipsa loquitur on which to rely. And there are at least two extant theories which, at first glance, seem to provide some basis for hope. These are "breach of warranty" and "strict liability," neither of which demands any evidence of negligence in order to hold a machine-owner or user liable.

C. Breach of Warranty

Though it had its birth in close enough propinguity to tort doctrines to be at least a bastard son of that family, 96 warranty has modernly been an adjunct to the law of sales.97 Therein, in fact, lies both its strength and its weakness as a doctrine adaptable to malpractice actions. A warranty (for our purposes) is a promise about the nature and quality of goods. It may be express or implied. Under the law currently in effect in the vast majority of American jurisdictions, 98 unless validly disclaimed, 90 the sale of an article of merchandise carries with it the implied warranty that the goods are merchantable, that is, ". . . fit for the ordinary purposes for which such goods are used."100 In addition, if "the seller at the time of contracting has reason to know any particular purpose for which the goods are required and that the buyer is relying on the seller's skill or judgment to select or furnish suitable goods, there is . . . an implied warranty that the goods shall be fit for such purpose."101 When these warranties are breached by the defectiveness of the goods, the damages which may be recovered include not only the loss of the value of the buyer's bargain, but also all consequential damages flowing from the breach, including bodily injury.¹⁰² Indeed, the seller's attempt to limit his liability by ex-

^{96.} See 8 W. Holdsworth, History of English Law 67-70 (1932); T. Plucknett, Concise History of the Common Law 640-42 (5th ed. 1956).

^{97.} See American Law Institute, Uniform Sales Act §§ 12-16 (1906); UCC §§ 2-312—2-318.

^{98.} As of December 31, 1966, the Code had been adopted in forty-nine jurisdictions. See 3 Bender's Uniform Commercial Code Service vi (Duesenberg & King eds. 1966).

^{99.} See UCC § 2-316.

^{100.} UCC § 2-314.

^{101.} UCC § 2-315.

^{102.} See Henningsen v. Bloomfield Motors, Inc., 32 N.J. 358, 161 A.2d 69 (1960) (pre-UCG). The Code is very explicit:

Consequential damages . . . include . . . injury to person or property proximately resulting from any breach of warranty. UCC § 2-715 (2).

cluding jeopardy for personal injury is, in regard to consumer goods, "prima facie unconscionable." Moreover, while under the Code this liability extends explicitly only to the purchaser, his family and guests in the purchaser's home, 104 the Code equally explicitly states that its provision is not meant to stop any jurisdiction from extending the protective ambit of the doctrine further, 105 and indeed several jurisdictions have done so. 106

Now it must be emphasized that once the warranty is established, and it is shown that the goods were defective and that their defect caused the injury complained of, no proof of negligence need be tendered in order to hold the seller liable. If a manufacturer were to create with exquisite care, running innumerable sophisticated tests and other safety procedures, a device which turned out not to meet its warranty, he would still be liable. Indeed it has been extensively held that a retailer who sells defective food in a sealed can, which he cannot test without destroying, is nevertheless liable to the purchaser for injuries suffered in eating that food. Thus, were warranty theory applicable to failing-device malpractice cases, it would eliminate at once most of the expert-testimony hurdle, the proof-of-fault bother, and substantially all of the other lets and hindrances to successful malpractice prosecutions except proof of causation, and all of this would come about because warranty was a sales doctrine rather than a delict doctrine.

The crushing difficulty is that since it is a sales doctrine it demands a sale, and doctors don't sell their equipment to their patients. In fact, even when a quasi-sale is involved, for instance in the supplying of allegedly defective blood to a patient by a hospital, the courts have been unwilling to find a "sale" sufficient for warranty purposes to charge the hospital. Admittedly, assuming that a jurisdiction were willing to widen

^{103.} UCG § 2-719(3). What that might mean is open to some conjecture. See Leff, Unconscionability and the Code—The Emperor's New Clause, 115 U. PA. L. REV. 485, 519 n.130 (1967).

^{104.} UCC § 2-318.

^{105.} Id., comment 3.

^{106.} See 2 F. HARPER & F. JAMES, supra note 68, § 28.16; W. PROSSER, supra note 73, § 95 at 651-57.

^{107.} See 2 F. HARPER & F. JAMES, supra note 68, § 28.30 at 1599-1600.

^{108.} See Sloneker v. St. Joseph's Hosp., 233 F. Supp. 105 (D. Colo. 1964); Perlmutter v. Beth David Hosp., 308 N.Y. 100, 123 N.E.2d 792 (1954); Dibblee v. Dr. W. H. Groves Latter-Day Saints Hosp., 12 Utah 2d 241, 364 P.2d 1085 (1961); Gile v. Kennewick Public Hosp. Dist., 48 Wash. 2d 774, 296 P.2d 662 (1956); Koenig v. Milwaukee Blood Center, 12 Wis. 2d 324, 127 N.W.2d 50 (1964). Indeed, this no-sale rule has been extended beyond hospitals to blood banks. See Whitehurst v. American Nat'l Red Cross, 1 Ariz. App. 326, 402 P.2d 584 (1965); Balkowitsch v. Minneapolis War Memorial Blood Bank, Inc., 270 Minn. 151, 132 N.W.2d 805 (1965). But see Russell v. Community Blood Bank, Inc., 185 So. 2d 749 (Fla. Dist. Ct. App. 1966) where

the ambit of harmed persons entitled to sue for breach of warranty beyond that prescribed by the Code, 109 so as to make it possible for a doctor-buyer's patient to sue the manufacturer or distributor, then the patient would have another string for his bow, 110 but the shaft he let fly would still not strike any doctors or hospitals. 111 For that to occur the concept of "sale" would have to be expanded to include "using upon," an expansion which none of the cases has yet been willing to make. 112 That being so, for our purpose it is sufficient to note that the existence of a warranty ground for recovery in regard to defective devices does not yet seem materially to have increased any doctor's or hospital's jeopardy for the use of advanced medical technology.

D. Strict Liability

Perhaps in response to the relatively unpredictable and sporadic workings of warranty doctrine as a device to reach sale-connected personal injury claims (this unpredictability arising most particularly out of the privity requirements which grew up around warranty claims) a new doctrine is in the process of construction to deal with the depredations of defective products. As codified in the Restatement (Second) of Torts, this doctrine, generally denominated "strict liability," provides:

the court refused to consider the blood bank as the same as a hospital for warranty purposes but exonerated it anyway by applying the "inherently unsafe" exception under Restatement (Second) of Torts § 402A, comment k (1966), a strict-tort-liability doctrine. In Hoder v. Sayet, 196 So. 2d 205 (Fla. Dist. Ct. App. 1967), in a suit for damages for death allegedly caused by homologous serum hepatitis caused from impure blood from a commercial blood bank, the court held that the supplying of the blood was a "sale" (and thus warranty doctrine would apply) and also stated that just because a product may be unavoidably unsafe does not license its processor to disregard all standards of care and precaution simply because he is secure in the knowledge that he does not impliedly warrant it against its unavoidable defects. The blood banks must take precautions in selecting donors and processing blood.

In Mississippi, on the other hand, blood supplying has by statute just been declared not to be a sale. See Miss. Laws 1966, ch. 475, § 1.

109. See note 105 supra.

110. See Annot., 79 A.L.R.2d 301, 701 (1961) (liability of manufacturer or seller for defective medical devices and drugs).

for defective medical devices and drugs).
111. See Annot., 14 A.L.R.3d 1254 (1967). But cf. Butler v. Northwestern Hosp.,
202 Minn. 282, 278 N.W. 37 (1938).

112. See Note, The Medical Profession and Strict Liability for Defective Products—A Limited Opportunity, 17 HASTINGS L.J. 359, 360 (1965). The note argues in favor of such extension, however. See id. at 359, 368-69. In fact the trend may be even more restrictive. Cf., e.g., McLoed v. W.S. Merrel Co., 174 So. 2d 736 (Fla. 1965) where the court, despite the cases holding retailers of food responsible in warranty for defective products in sealed cans (see note 107 supra), refused to hold a druggist liable for a pre-packaged defective drug.

- (1) One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property, if
 - (a) the seller is engaged in the business of selling such a product, and
 - (b) it is expected to and does reach the user or consumer without substantial change in the condition in which it is sold.
- (2) The rule stated in Subsection (1) applies although
 - (a) the seller has exercised all possible care in the preparation and sale of his product, and
 - (b) the user or consumer has not bought the product from or entered into any contractual relation with the seller.¹¹³

Clearly, this doctrine would apply to almost any medical devices, which almost without exception are "dangerous" if defective;¹¹⁴ it would apply without any need for proof of negligence, and the concept of "user or consumer" contained in it would be easily broad enough to include medical patients harmed by defective devices purchased by their physicians¹¹⁵ (thereby explicitly eliminating the old privity problems of warranty law). With perhaps some caveat as to certain drugs which are always dangerous even when not defective,¹¹⁶ this theory of liability seems to fit most defective-device malpractice cases like an old-fashioned surgical glove. It has been used with respect to a large number of different kinds of products,¹¹⁷ including, at least once, to justify the recovery of a substantial sum in connection with a defective surgical pin.¹¹⁸

But that recovery was from the pin's manufacturer. For alas, while the section clearly eliminates any requirement that the plaintiff be a buyer, it just as clearly insists that the defendant be a seller¹¹⁹ and, more than that, a seller "... engaged in the business of selling such product."¹²⁰ Therefore, under the "strict liability" formulation, even the blood-supply cases¹²¹

^{113.} RESTATEMENT (SECOND) OF TORTS § 402A (1965).

^{114.} See id., comment i.

^{115.} See id., comment 1: "'User' includes those who are passively enjoying the benefit of the product"

^{116.} See id., comment i; Russell v. Community Blood Bank, Inc., 185 So. 2d 749, 754-55 (Fla. Dist. Ct. App. 1966).

^{117.} See RESTATEMENT (SECOND) OF TORTS § 402A APPENDIX, at 1-8 (1966) (a full review of all the cases thus far utilizing the concept). The most influential case taking the concept beyond food products is Greenman v. Yuba Power Products, Inc., 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1962) (power tool).

^{118.} Bowles v. Zimmer Mfg. Co., 277 F.2d 868 (7th Cir. 1960).

^{119.} See RESTATEMENT (SECOND) OF TORTS § 402A, comment l, Illustration (1965).

^{120.} Id. § 402A (1) (a) & comment f.

^{121.} See cases cited note 108 supra.

would be harder to encompass; the machinery-use cases would be impossible to cover without a judicial coup de main. 122

E. Conclusion

The products-liability "breakthroughs" have thus far appeared in a form peculiarly unsuited to medical-device litigation. ¹²³ Res ipsa loquitur, while not without representation in the reports, has met resistance, and is, as indicated above, inherently unsuited to such medical-device cases except through a sleight-of-hand which will not withstand much scrutiny. Warranty and strict liability suffer from their common requirement of a sale, which in turn is a function of their primary legal purpose, the allocation of loss from commercial imperfections; they have thus far had almost no application against doctors or hospitals. And perhaps that is the way it should be. No one will deny, least of all doctors (at least not when asked directly) that the practice of medicine is a profit-making venture. But the

See also Cheshire v. Southampton Hosp. Ass'n, 53 Misc. 2d 355, 278 N.Y.S.2d 531 (Sup. Ct. 1967) where the plaintiff's pleading, which alleged specifically the sale of an intramedullary pin by the defendant hospital, withstood a motion to dismiss. But the court made clear that an actual sale of the pin itself, separate from the hospital's rendition of care and services, would have to be proved (a not very likely possibility).

123. There is another possible avenue of approach to these cases which, while by no means limited to situations involving new technologies, would tend to have more frequent operation in that context and should be mentioned here. A physician may be held liable to a patient if he carries out a procdure without having first procured the patient's "informed consent." See, e.g., Natanson v. Kline, 186 Kan. 393, 350 P.2d 1093 (1960). Without going too deeply into the details of this possible liability, for which see generally McCoid, A Reappraisal of Liability for Unauthorized Medical Treatment, 41 MINN. L. REV. 381 (1957), it is obvious that the more complex and powerful the device, the more likely it is that a user thereof will be forced to walk a dangerously narrow line between failing to warn a patient of the dangers involved and frightening him away from a treatment which is indicated despite its dangers. In some areas, notably that involving experimental drugs, some statutory guidelines exist. See 21 U.S.C. § 355 i, j (Supp. 1966), as amended, 76 STAT. 780, 782-84 (1962), but absent those standards, determining what information must be given is no easy business. See, e.g., Salgo v. Board of Trustees, 154 Cal. App. 2d 560, 317 P.2d 170 (1957); Williams v. Menehan, 191 Kan. 6, 379 P.2d 292 (1963); Natanson v. Kline, supra; Woods v. Brumlop, 71 N.M. 221, 377 P.2d 520 (1962); Gravis v. Physicians & Surgeons Hosp., 415 S.W.2d 674 (Tex. Civ. App. 1967).

^{122.} Just such a coup was asked, and refused in a very recent case, Magrine v. Krasnica, 36 U.S.L.W. 2572 (Hudson City Ct. [N.J.], March 9, 1967) where the plaintiff, in a broken-hypodermic-needle case, asked for the extension of the strict-liability doctrine of § 402A "to service contracts, and particularly to those involving the use of manufactured implements in the performance of the service." The court apparently fully considered many of the applicable analogies and policy arguments before refusing to declare that "the gates are wide open."

healing arts are not necessarily just another species of commerce. Doctors and hospitals operate in an area where risk is always present, even without anyone's fault, but where liability, at least in the eyes of the community of potential patients, is always fault. 124 That is not to say that a legal system which made doctors and hospitals (or their insurers) absolutely liable for the mechanical shortcomings of their adjunct devices would be a senseless system; if risk spreading for mechanical and manufacturing imperfection is good for commerce and society, it may be good for medicine and patients. But such a conclusion does not necessarily follow. Most particularly, before announcing any such doctrine one would like to investigate what effect, if any, it might have upon doctors' willingness to utilize new medical technologies for the failure of which they themselves would be absolutely liable. 125 The danger at present is that the decision on whether to extend the warranty and strict-liability doctrines to the failure of medical devices so as to charge the physician-users will be made by an unconsidered piercing of what is after all an accidental requirement, the "sale" sine qua non of the doctrines' commercial birth. A particularly appealing fact situation might do the trick, perhaps by way of a redefinition of "sale" to encompass the rendition of services. That might be a "good thing," but it might not. If it is to be done, it is better done knowingly, after explicit consideration, than as the emotive response to hearttugging facts and an accidental limitation.

In any event, on the basis of present law it may be said that one's malpractice risks, as a doctor or hospital, do not materially increase *solely* through the use of more sophisticated medical devices.¹²⁶ Even the use

^{124.} Or at least many physicians seem sincerely to believe that a recovery against them is interpreted as an aspersion upon their professional competence. See LOUISELL & WILLIAMS ¶ 1.04.

^{125.} Of course, in addition to the possibility of insuring against any financial loss (which also entails some residual risk under current policies, see "Malpractice Insurance," infra) there is the power of any physician, successfully sued, to recover against the sellers or manufacturer of the defective device. This, of course, shifts to the physician all of the risks and confusions of actions over. See e.g., Pollanck v. Cyril & Julia Johnson Memorial Hosp., 26 Conn. Super. 186, 216 A.2d 841 (1965). See also Nelson v. Swedish Hosp., 241 Minn. 551, 64 N.W.2d 38 (1954) (manufacturer's warranty disclaimer effective).

^{126.} One additional caveat is perhaps required here. There appears to be some feeling in the courts that failure to maintain adequate equipment is somehow grounds for a way around any charitable-immunity protection against suit afforded a hospital. See, e.g., Ball Memorial Hosp. v. Freeman, 245 Ind. 71, 196 N.E.2d 274 (1964). And in those states maintaining some sort of professional-administrative negligence distinction with hospitals liable only for the latter sort, see text at notes 174-76 infra, supplying defective materials has been classed as "administrative." See, e.g., Volk v. City of New York, 284 N.Y. 279, 30 N.E.2d 596 (1940).

of the most advanced devices, computers, will still have to be judged in the main by those rules which apply to the purposive acts of physicians generally. Briefly, the mere use of a machine, even a defective machine, does not under currently applicable doctrine relieve the plaintiff of proving, under the ordinary standard, that the doctor or hospital departed from the ordinarily applicable standard of care.¹²⁷

What happens, however, if the new medical technique involves not the use of special machinery, but the use of special people? More precisely, what is the legal effect of employing a person to do a "medical" job, instead of doing it oneself or employing a machine to do it? One result is that a lawyer's attention shifts from products-liability foci to agency doctrines, with a concommitant shift of rule and emphasis. Thus, to understand the situation in law of the "paramedical," one must first creep fearfully into the thicket of "agency" as a division of the law, hoping eventually to flush out the particularly sought doctrinal quarry.

III. MEDICO-LEGAL AGENCY DOCTRINES AND THE USE OF PARAMEDICALS

A. General Agency Doctrines

As a matter of general law,

A master is subject to liability for physical harm caused by the negligent conduct of servants within the scope of employment.¹²⁸

That sounds clear enough, but much of agency law consists of attempts to attach more precise definitions to that simple rule. For present purposes the central definitional problem involves the words "master" and "servant:" in what circumstances are two persons engaged in a somehow allied endeavor in the relationship of master to servant with respect to that endeavor.

To answer that question as a matter of general law, that is, applicable to all factual matrices which might arise and become relevant at law, no

^{127.} Naturally, if the element of negligence is present the doctor is not relieved of liability merely because a dangerous product was involved. See, e.g., Love v. Wolf, 226 Cal. App.2d 378, 38 Cal. Rptr. 183 (1964) (prescription of contraindicated antibiotic).

^{128.} RESTATEMENT (SECOND) OF AGENCY § 243 (1958). See also id. § 219(1) (torts in general).

^{129.} See id. §§ 219-34; F. Mechem, Outlines of the Law of Agency §§ 364-468 (4th ed. 1952) [hereinafter cited as Mechem].

^{130.} Problems about what is within the scope of a servant's employment, rife in ordinary master-servant cases, are extremely rare in malpractice, most likely because medical employees, when they are about their employer's business, are ordinarily in his office or hospital and doing things more or less clearly connected with the general duties for which they were hired.

simple test has been devised. The Restatement (Second) of Agency, in fact, does not even attempt to set out a simple single definitional criterion. Instead it provides in its key definitional section¹³¹ one seemingly prime requirement, ¹³² followed by a collection of ten criteria also to be considered:

- (1) A servant is a person employed to perform services in the affairs of another and who with respect to the physical conduct in the performance of the service is subject to the other's control or right to control.
- (2) In determining whether one acting for another is a servant or an independent contractor, the following matters of fact, among others, are considered:
 - (a) the extent of control which, by the agreement, the master may exercise over the details of the work;
 - (b) whether or not the one employed is engaged in a distinct occupation or business;
 - (c) the kind of occupation, with reference to whether, in the locality, the work is usually done under the direction of an employer or by a specialist without supervision;
 - (d) the skill required in the particular occupation;
 - (e) whether the employer or the workman supplies the instrumentalities, tools, and the place of work for the person doing the work;
 - (f) the length of time for which the person is employed;
 - (g) the method of payment, whether by the time or by the job;
 - (h) whether or not the work is a part of the regular business of the employer;
 - (i) whether or not the parties believe they are creating the relation of master and servant; and
 - (j) whether the principal is or is not in business.

As one would guess from a Restatement provision in the above form, the law in the area of its ken is hardly settled, seeming to depend, if not on that old evasion "the facts of the particular case," at least on the facts of a large number of diverse paradigmic cases. Nevertheless, as one often finds, most of the cases are easy cases. Permanently employed hourly-wage manual laborers are "servants," and he who pays them is an employer and a master. No one is likely to contend for long that a truck driver who is hired by and paid weekly for his services by a trucking firm is not its "servant" in driving a truck, or that the Ford Motor Company is not the "master" of an assembly-line worker.

^{131.} RESTATEMENT (SECOND) OF AGENCY § 220 (1958).

^{132.} The peculiar mischievousness of this prime requisite, "control," will be illustrated in detail presently. See text accompanying notes 149-204 infra.

Both the problems and the simplicities of master-servant law are in general reflected in the more restricted context of medical malpractice. There too, the simple cases are legion. By any test currently employed, a nurse¹³⁸ or other attendant¹³⁴ employed by a physician in his office, hired, paid, and supervised by him, is his "servant." With respect to hospitals, their full-time salaried orderlies,¹³⁵ technicians,¹³⁶ and nurses¹³⁷ are almost uniformly considered "servants" for respondent superior purposes. The trouble arises with respect to three questions: (1) the responsibility of hospitals for the acts of physicians; (2) the responsibility of physicians for the acts of other physicians; and (3) the responsibility of physicians for the acts of persons "employed" by hospitals.¹³⁸

A cursory glance at the Restatement indicia quoted above indicates that when the alleged "servants" are highly trained professionals, the question of their status becomes heroically unclear. It is this, more than anything, which clouds the physician's status. The more skilled in his activities a person is, the more he identifies with a specific well-recognized profession, the more his activities demand independent knowledge, skill and judgment, the less likely he is to be considered a "servant" for respondent superior purposes. On the other hand, what is one to conclude of even such a professional's status when he is, with all of his skill and qualifications, a permanent full-time salaried employee of another who uses his employer's offices and other facilities? In other words, what is one to conclude when the indicia of servanthood and independence coincide neatly in one and the same individual?

^{133.} See, e.g., Walker v. Rynd, 46 Wash. 2d 226, 280 P.2d 259 (1955).

^{134.} See, e.g., Donald v. Swann, 24 Ala. App. 463, 137 So. 178 (1931).

^{135.} See, e.g., Hipp v. Hospital Authority, 104 Ga. App. 174, 121 S.E.2d 273 (1961) (despite defense that orderly, in molesting child patient, was acting out of scope of authority).

It should be recalled at this point that a hospital is a juridical "person" only; having no arms or legs or mind of its own it must "act," if at all, only through agents and servants.

^{136.} See, e.g., Hospital Authority v. Adams, 110 Ga. App. 848, 140 S.E.2d 139 (1964).

^{137.} See, e.g., Duling v. Bluefield Sanitarium, Inc., 149 W. Va. 567, 142 S.E.2d 754 (1965).

^{138.} A less serious problem surrounds the physician's possible liability for the acts of the patient's "employees," typically "special" nurses. An occasional allegation of such liability may be found, see, e.g., Louzader v. James, 107 S.W.2d 976 (Mo. App. 1937) but there appears to be no case in which the physician was held liable for a special nurse's error.

^{139.} See RESTATEMENT (SECOND) OF AGENCY § 220 (2) (a), (b) & (d) (1958).

^{140.} See id. § 220 (2)(e), (f), (g), (h) & (j).

A possible answer, I suppose, is to count indicia. A more reasonable approach would be to try to discover whatever policy considerations underlie, are embodied in, and then are masked by, these indicia. And first it is important to keep in mind that all respondeat superior liability is liability without fault. If there is actual employer fault involved, negligent hiring, for instance, or delegation to unqualified personnel, one has no need of any derivative liability theory to charge the master. But ordinarily one is not liable for harm unless he has been at the very least careless. That being so, it is somewhat surprising to see this master's liability for someone else's errors, his employee's, accepted so easily. And indeed it was not so generally accepted even into the twentieth century. The origin of the rule has been variously ascribed, but the current justifications may be broken down into three families: (1) the historical-accident theories; (2) the entrepreneurial theories; and (3) the spreadthe-loss or "deep-pocket" theories.

The first of these bases need hardly be discussed at all. If the master's liability for the negligence of his servant is but an accidental survival of another historical context, perhaps from the master-slave relationship of ancient Rome, 146 that is interesting, but it can hardly, except through the most attenuated process of reasoning, inform any contemporary decision in a particular case. Moreover, if the third explanation is the correct one, it is only another way of saying that for some reason or other, when injuries through "agents" are involved, it has been decided to put the recompensatory function of the law of torts over its responsibility-affixing function, under some theory of the public weal. This decision too will not much inform any current decision except in the crudest manner. Once the master-servant relationship is established some other way, then the surge toward the pocket can commence, but the deepness of the pocket is not itself a criterion for establishing the status relationship; if your chauffeur happens to have more money than you do, you are still responsible for

^{141.} See, e.g., Stohlman v. Davis, 117 Neb. 178, 220 N.W. 247 (1928).

^{142.} See, e.g., Delaney v. Rosenthal, 347 Mass. 143, 196 N.E.2d 878 (1964).

^{143.} See T. Baty, Vicarious Liability (1916), especially at 146-54, which can be recommended, among other things, as one of the finest extant examples of sustained stylistic waspishness.

^{144.} See T. Baty, supra note 143, at 7-34; O. Holmes, The Common Law 16, 228-29 (1881); Mechem §§ 352-53; Restatement (Second) of Agency, Historical Note prefaced to § 219, at 477-78 (1958); Holmes, Agency, 4 Harv. L. Rev. 345 (1891), 5 Harv. L. Rev. 1 (1891).

^{145.} See T. Baty, supra note 143, at 148 for a black-letter tabulation of who has espoused which. See also Mechem §§ 351-63 and works cited in § 351 nn.4-6.

^{146.} See Holmes, Agency, supra note 144.

his negligence and he is still not responsible for yours. In other words, the rule is *not* that any connection with a harmful event will, when coupled with wealth, equal liability.

The difficulty with the entrepreneurial-theory explanations of respondeat superior—that after all the "servant" was engaged in furthering the "master's" business when the injury occurred and thus it should be treated as a "cost" of that business¹⁴⁷— is that taken alone it cuts too far. One is most emphatically not responsible for the torts of everyone who is about one's business, but only for those of "servants" about one's business. If the tort is that of an "independent contractor," it becomes a cost of his business, not that of his "employer." If a factory owner calls in a plumber to fix a leaky pipe, for instance, and in the course of fixing that pipe the plumber drops a wrench on a passerby, the factory owner is ordinarily not responsible for that injury. Briefly, on the basis of current law merely being someone's business does not make you his "servant," or make him responsible for your torts. 148

What does? Well, along with (or perhaps independent of) the commonsense incidents of employment-permanence of employment, continuousness, regularity of salary, and so forth it is "control or right to control" which seems to govern.¹⁵⁰ The use of this "control" terminology, however, is notably unfortunate. The dramatic vignettes it produces are generally inapposite to the question at hand. The flavor of the word is such that one is impelled into a feeling that the master's fault lies somehow in a culpable failure to control the acts of his servant to the extent that innocent third parties not be subjected to harm. But the truth is that the right to control does not very often coincide with the power to control. In fact, in those situations wherein the possibility of such actual power is present most of the utility of having a servant in the first place is lost. If a truck owner were to ride beside his driver on every trip, or more pertinently, if a physician were to hover over his nurse on every trivial procedure, it would hardly be worthwhile having the driver or nurse at all. And even in those situations where the possibility of control is strengthened by the master's presence and attention, it would still be almost impossible for him to control those minutiae of physical activity out of which most accidents arise: the momentary inattention, the small speedy slip of the needle or knife. The point is that the failure actually to control the acts of servants such that the error would not take place is often, by no

^{147.} See Mechem § 359.

^{148.} See RESTATEMENT (SECOND) OF AGENCY §§ 219-20 (1958).

^{149.} See id. § 219(2).

^{150.} Id. § 219(1). See also Mechem §§ 413-15.

reasonable interpretation of the words, "negligent or otherwise culpable." Liability under the doctrine of respondeat superior is still liability without fault, and the concept of "control" is not, correctly understood, a means of supplying the element of fault which everyone is searching for, but a means of supplanting it. The right to control is just one, albeit an important one, of the indicia of the existence of a master-servant relationship in the first place, and it is this initial relationship which is the correct focus of inquiry.

For respondeat superior seems really to come down to this: If you enter into a relationship with another person such that common sense would make one call him your servant, you will be responsible for all of the harm he negligently commits, without reference to your innocence or indeed to anything other than the social utility of placing the loss where it may be recompensed and spread among a larger group of persons benefitting from those services. The law of torts is a system fundamentally designed to assign fault and provide recompense, and its general rule is that the source of the recompense should be the source of the fault. But it appears that there are some circumstances wherein the recompensatory function overtakes the fault-assessing function, to the effect that if two parties are without "fault" in any realistic sense, but one of them is harmed, the causal nexus between them will alone justify shifting the loss onto the other as a source of recompense (especially where that other is in the position to spread the impact of that loss).

What complicates things is that not all persons whom one hires to go about one's business necessarily have empty pockets; if one businessman hires another businessman to do a job, for instance plumbing, and it is the plumber's negligence which injures a third party, it is hard to see why it is not enough for the injured party to have the plumber to go after; why does he need the man with the leaky pipes too? In other words,

^{151.} This is not to imply that an employer has no power of general direction or control, or that the exercise of that general power cannot conduce toward greater safety and care. If a munitions maker forbids in-factory smoking, and enforces that rule stringently, his neighbors are indeed safer, and his failure to do either might be negligent. But putting up a sign that no employee is at any time to drop a case of guncotton is not going to decrease the risk, and the employer will be responsible for the dropped case even if he had no real opportunity to intercept its fall himself.

In fact it is arguable that it is precisely within the scope of his employee's employment that the employer is ex hypothesi incapable of effective factual control. When he fails to provide adequate guidance for employees, or hires carelessly he is himself negligent. When his safe employees fail to meet his adequate standards, he is not negligent, but he is, for all of that, just as legally responsible.

^{152.} Cf. Mechem § 415 (control as "a matter of intuition"). I take it that it is understood that an appeal to "common sense" or "intuition" is a confession and not an explanation.

if the assumption is that an injured party have an "enterprise" to pursue for recompense, it does not necessarily follow that he have two enterprises. Thus the servant-defining concept of control has a second function, determining whether there are two "enterprises," and if so which enterprise should have the liability. If the employer does not have sufficient "control," and does not meet the other master-defining criteria, then the "employee" is an "independent contractor." What that really means is that if there are two enterprises, presumptively full-pocketed, then the injured party is remanded to his more normal right under the law of torts, to go after the party actually guilty of delict.

B. Medical Applications

All of these confusions are, as we shall see, interestingly represented in cases confronting the agency complications of malpractice. But, as noted above, not all cases are hard cases, and the courts have made some medical-agency decisions firmly. Individual doctors (as contrasted to hospitals, whose position will be discussed anon) are liable for the negligence of all persons to whom they pay a salary on a regular basis, ordinarily nurses and attendants,¹⁵⁴ but occasionally younger salaried doctors.¹⁵⁵ In fact, so far as physicians are concerned, the only remaining vicarious liability problems involve persons to whom they do not pay a regular salary, but with whom they are nevertheless "associated" in particular cases, or even in particular procedures within particular cases. These situations involve, typically, other independent physicians, and the regular employees (professional or not) of hospitals in which their patients are lodged.

As a general rule, a doctor is not responsible for the negligence of a consultant, even if he recommended him and made all of the arrangements for his employment by the patient.¹⁵⁶ This assumes, of course, that the recommendation was not itself negligent, that is, that the referring doctor neither knew nor had reason to know that the specialist was incompetent or unqualified to do the particular job.¹⁵⁷ Nor is a physician ordinarily liable for the actions of another physician who substitutes for him during a period when he is absent or unavailable.¹⁵⁸ This is not the

^{153.} See RESTATEMENT (SECOND) OF AGENCY § 220(2) & comment e (1958).

^{154.} See notes 133-34 supra.

^{155.} See note 134 supra.

^{156.} See Oldis v. La Societe Francaise De Bienfaisance Mutuelle, 130 Cal. App. 2d 461, 279 P.2d 184 (1955); Powers v. Scutchfield, 205 N.E.2d 326 (Ind. App. 1965).

^{157.} See, e.g., Smith v. Beard, 56 Wyo. 375, 110 P.2d 260 (1941).

^{158.} See Myers v. Holborn, 58 N.J.L. 193, 33 A. 389 (1895); Sturm v. Green, 398 P.2d 799 (Okla. 1965); Nash v. Royster, 189 N.C. 408, 127 S.E. 356 (1925) (agency is jury question); Moore v. Lee, 109 Tex. 391, 211 S.W. 214 (1919). But see Wilson v.

case, however, if his absence or unavailability is unjustified, especially if he made no arrangement for a competent substitute to "cover" his patients during an expected hiatus in his own service, or if he arranges for an inadequate "cover." Of course, if his replacement is a physician regularly in his employ such as to be his "servant" under the usual indicia, then he is liable for that substitute's negligence under respondent superior just as he would be for any other servant. And sometimes more permanent and regular "covering" arrangements in fact amount to employment relationships or ad hoc or permanent partnerships in all but official designation, and since doctors, like everyone else, are liable for the acts of their partners in furtherance of the partnership business, a doctor will be liable for negligence committed by his actual but unofficial partner.

Moreover, if two doctors jointly cause harm to a person, they are both liable for that result.¹⁶⁵ And just because a consultant has been called in does not mean that a doctor is immediately thereby freed of responsibility for his own subsequent negligence. Thus, if a consultant makes an error which the referring physician sees or ought to have seen in the exercise of reasonable care, he himself will be negligent in doing nothing to correct it.¹⁶⁶ Of course, the reason one calls in a specialist-consultant is for his expertise, and thus one is not necessarily negligent in not second-guessing one's consultant, but there are errors which a specialist can commit which a reasonably competent non-specialist ought to catch. But it should be noted that in cases like these, the doctor's liability is based on his own negligence; it is not derivative at all.

But the private physician's major exposure for the negligent acts of persons not employed by himself arises in connection with the treatment

Martin Memorial Hosp., 232 N.C. 362, 61 S.E.2d 102 (1950) (jury finding of agency upheld).

^{159.} These cases are often considered as species of abandoment. See LOUISELL & WILLIAMS ¶ 8.08 and ¶ 16.04 n.50.

^{160.} See, e.g., Stohlman v. Davis, 117 Neb. 178, 220 N.W. 247 (1928).

^{161.} See, e.g., Wilson v. Martin Memorial Hosp., 232 N.C. 362, 61 S.E.2d 102 (1950).

^{162.} See, e.g., Heimlich v. Harvey, 255 Wis. 471, 39 N.W.2d 394 (1949).

^{163.} See Wolfsmith v. Marsh, 51 Cal. 2d 832, 337 P.2d 70 (1959); Porter v. Puryear, 153 Tex. 82, 262 S.W.2d 933 (1953). But see Graddy v. New York Medical College, 19 App. Div. 2d 426, 243 N.Y.S.2d 940 (1963) (shared office and fee splitting not de facto partnership).

^{164.} See, e.g., Haase v. Morton & Morton, 138 Iowa 205, 115 N.W. 921 (1908); cf. United Dentists, Inc. v. Bryan, 158 Va. 880, 164 S.E. 554 (1932) (suit against incorporated dental clinic).

^{165.} See, e.g., Baird v. National Health Foundation, 235 Mo. App. 594, 144 S.W.2d 850 (1940); Sprinkle v. Lemley, 414 P.2d 797 (Ore. 1966).

^{166.} See, e.g., Morrill v. Komasinski, 256 Wis. 417, 41 N.W.2d 620 (1950).

of his patients at hospitals. Under certain circumstances a private doctor may find himself held legally responsible for the actions of full-time hospital employees, and even for the acts of other independent physicians who treat his patient in the hospital. To understand the contours and origin of that liability, however, something must be said first about modern hospital organizations, the hospital's own respondent superior liability pattern, and the way in which the "control" criteria fit (or, more accurately, do not fit) this organizational pattern.

A modern hospital has a great number of highly trained professionals going about its business who are "employees" by almost any definition of that term. These are not limited to technicians, nurses and interns either; also on the regular payroll, frequently without any independent practice, are a number of fully qualified, fully licensed physicians, sometimes called the "house staff," often including physicians well beyond their initial residency period. Almost without exception, hospitals are presently responsible for the negligent acts of all of their full-time salaried employees, whether menials, 168 technicians, 169 nurses, 170 interns, 171 or resident physicians. 172 And there are some indications that the hospital may be held responsible for the acts of non-salaried professionals whose permanence and pervasiveness of relationship with the hospital is analogous to "employment," at least if it might lead a patient to believe that they were employees. 173

Until recently, extension of this broad liability for the acts of professional employees had been retarded to some extent by the following doctrine: since a corporation (the hospital) could not practice medicine, and since it was factually absurd to suppose that anyone had the right to "control" a highly trained professional in the practice of his profession, a hospital could not be held derivatively liable for the professional negligence of its professional employees, though it could still be held liable for their "administrative" negligence. This rule neatly illustrated the confusion

^{167.} See Stetler & Moritz 366-67.

^{168.} See note 135 supra.

^{169.} See note 136 supra.

^{170.} See note 137 supra.

^{171.} See, e.g., Methodist Hosp. v. Ball, 50 Tenn. App. 455, 362 S.W.2d 475 (1961).

^{172.} See, e.g., Emory Univ. v. Lee, 97 Ga. App. 680, 104 S.E.2d 234 (1958); cf. Carroll v. Richardson, 201 Va. 157, 110 S.E.2d 193 (1959) ("concessionaire" pathologist as hospital "employee").

^{173.} See C. Kramer, Medical Malpractice 24 (rev. ed. 1965); Louisell & Williams ¶ 16.08; Stetler & Moritz 367, all citing Seneris v. Haas, 45 Cal. 2d 811, 291 P.2d 915 (1955), and all except Kramer citing Carroll v. Richardson, 201 Va. 157, 110 S.E.2d 193 (1959).

^{174.} The leading case is generally considered to be Schloendorff v. Society of New York Hosp., 211 N.Y. 125, 105 N.E. 92 (1914).

sown by the word "control" in its agency context, and its unfortunate tendency to tempt judges into regarding it as fault-denominating, rather than a status defining, concept. At any rate, the professional-administrative distinction proved itself unadministratable over the years, 175 and it is quite clear that, though it may survive presently in some places, 176 it is unlikely to hang on long, and it ought soon to be the general rule that hospitals are responsible for all of the errors of its fulltime employees, "professional" or not.

In addition to its employees, however, most hospitals also have treating patients within its walls a large roster of other doctors, the so-called "visiting staff," physicians in private practice who have the privilege of treating their patients at the hospital.¹⁷⁷ Except for the fact that these physicians use hospital facilities, and are subject to some form of "control" (in the significant but limited sense that the hospital may cancel their visiting privileges),¹⁷⁸ these doctors, though they may be in the hospital every day, would hardly be reasonably denominated "servants" without giving a violent wrench to the usual indicia, since they are ordinarily engaged and paid by the patient. Thus it has almost without exception been held that the negligence of these "outside" doctors is not imputable to the hospital so as to make it liable to the injured patient.¹⁷⁹ (By a parity of reasoning, if nothing else, it has also generally been held that the visiting staff doctors are not responsible for the negligence of hospital employees inflicted upon

^{175.} See Bing v. Thunig, 2 N.Y.2d 656, 143 N.E.2d 3, 163 N.Y.S.2d 3 (1957), overruling Schloendorff, for a careful review of the mess caused in New York by the Schloendorff doctrine. But see 2 N.Y.2d at 667, 143 N.E.2d at 9, 163 N.Y.S.2d at 12: "... the doctrine of the Schloendorff case has justified itself over the years ..." (concurring opinion per Conway, C.J.).

See also W. Meredith, Malpractice Liability of Doctors and Hospitals 123-28 (1956) and H. Nathan, Medical Jurisprudence 122-39 (1956) for the story of the English and Canadian movement away from hospital non-liability for professional employees.

^{176.} See Huber v. Protestant Deaconess Hosp. Ass'n, 127 Ind. App. 565, 133 N.E.2d 864 (1956); Frost v. Des Moines Still College of Osteopathy and Surgery, 248 Iowa 294, 79 N.W.2d 306 (1956); Louisell & Williams III 16.01-16.07. See also Annot., 19 A.L.R. 1183 (1922) for a collection of the older cases.

^{177.} See C. Kramer, supra note 173 at 22; Stetler & Moritz 366.

^{178.} See Stetler & Moritz 41-43; Note, The Physician's Right to Hospital Staff Membership: The Public-Private Dichotomy, 1966 WASH. U.L.Q. 485, 512.

^{179.} See authorities cited in note 177 supra.

A warning should be interposed here that there seems to be some trend toward broadening the responsibility of hospitals for the acts of the attending staff. See Annot., 14 A.L.R.3d 873 (1967) and the cases cited therein, especially Darling v. Charleston Community Memorial Hosp., 33 Ill. 2d 326, 211 N.E.2d 253 (1965) where a charitable hospital seems to have been held liable for not supervising the orthopedic work of a non-specialist and for not insisting that he call in a consultant when the patient's condition began to deteriorate.

their patients, even if furtherance of the physician's own (non-negligent) orders, assuming, again that the delegation itself was not negligent.)¹⁸⁰

Were this the final resting place of imputed-responsibility doctrine in the malpractice area, doctors and hospitals would each be liable for their own and their servants' negligence. Fault, insofar as it might be relevant, would be rationally distributed, and recompense, obviously much more relevant, would be rationally arranged by making reachable the doctors and the hospitals (and their respective insurers). Unfortunately, there has intervened to snaggle this neat arrangement an extraneous doctrine: charitable immunity. Though the almost universal application of that doctrine is on the wane (along with its sister doctrine of sovereign immunity, covering governmental hospitals), in a great number of states at the present time non-profit hospitals are not fully amenable to suits based upon medical malpractice. 181 Wherever applicable, of course, this doctrine tends to sew closed one of the deep pockets towards which the agency imputations have been (seemingly inexorably) driving, and in many cases leaves the injured patient with no place to go for recompense except against the presumably impecunious technician, nurse, intern or resident whose actual error caused the injury. These persons, in addition, are less like to carry adequate insurance and are, moreover, by far more personally appealing to juries than the XYZ General Hospital. The sudden blockage of the route toward recovery can almost be pictured hydraulically. At the top of a cylinder is the source of monetary solace. The usual agency-aided piston pushes strongly toward that end, only to find a metal cap between the urge and its satisfaction. This hardly diminishes the thrust, but only frustrates it, pushing the compressed medium outward against the sides of the cylinder in which the law has imprisoned it. Hydraulically, under such circumstances, if there is the slightest crack in the sides of the cylinder, the compressed liquid will violently force its way through. And in this cylinder, there are two cracks. One is the "borrowed-servant doctrine" familiar to the law of agency, and the other is the doctrine of res ipsa loquitur (this time adapted to serve a quasi-agency purpose).

^{180.} See C. Kramer, supra note 173, at 24.

^{181.} For a state-by-state outline of the current status of the charitable and governmental immunity doctrines in the various states, see LOUISELL & WILLIAMS, ¶¶ 17.06-17.57 and 1966 Supp. at 99-106. Since that compilation at least two states, Idaho and Pennsylvania, have abolished the doctrine of charitable immunity. See Bell v. Presbytery of Boise, 421 P.2d 745 (Idaho 1966), and Nolan v. Tifereth Israel of Mount Carmel, 227 A.2d 675 (Pa. 1967). The abolition of the doctrine in Pennsylvania is particularly significant in the light of the fantastic lengths the Pennsylvania courts have gone in the past to get recompense for injured hospital patients despite the hospital's immunity. See the discussion of "captain-of-the-ship" doctrine, text at notes 195-204 infra.

1. Res Ipsa Loquitur

This latter doctrine has previously been discussed in connection with medical-device liability.¹⁸² And at first glance it would seem peculiarly unfitted to perform any vicarious liability function; after all, one of the prime preconditions to use its use is that the defendant in the case would be likely to be the one responsible for any negligence which had occurred.¹⁸³ In other words, one of the bases of the *res ipsa loquitur* theory is that the plaintiff may not know just *what* happened, but that whatever it was, the defendant (or someone for whose acts he is responsible) did it.

Let us suppose, however, the following situation, one very like the hypothetical case which opened this essay. A man goes into a hospital for an abdominal operation. He is wheeled, sedated, into the operating amphitheatre where there awaits him all of the personnel and paraphernalia of modern major surgery: an operating "team" consisting of a member or two of the house staff, several nurses, an intern, an anesthesiologist and a surgeon, together with an array of complicated and mysterious machinery. He is put under deep general anesthesia. When he awakes after the operation he has a crippling pain in one shoulder, that is, far away from the site of the (otherwise successful) operation.¹⁸⁴ He hasn't, and given the situation cannot have, any idea what happened, but he does know that he hurts. His impulse is to sue everyone who came near him during the course of the operation (post hoc, proptor hoc reasoning being among the commonest of human failings) 185 and since he doesn't know quite what to allege, he frames his complaint in terms of res ipsa loquitur. Now, since it is hardly credible that everyone in the room ganged up on him to hurt his shoulder (so any joint-tortfeasor theory is out), or that everyone there should have noticed whatever it was that was being done wrong (so any multiple-independent-delict theory is out), it is most likely the case that only one or two of the persons in the room was guilty of any personal negligence (assuming there was any). But who?186 The plaintiff in this sup-

^{182.} Text accompanying notes 70-95 supra.

^{183.} See text accompanying note 73 supra.

^{184.} While all the details are not the same, the foregoing is roughly the situation presented in the landmark case of Ybarra v. Spangard, 25 Cal. 2d 486, 154 P.2d 687 (1944).

^{185.} See Patrick v. Sedwick, 391 P.2d 453 (Alas. 1964) for a recent judical example. See note 92, supra, for the response of the malpractice insurers to being asked to stand liable for subsequentness rather than for causation.

^{186.} It should be noted here that if one person is responsible, under respondent superior for instance, for everyone in the room, there is no problem. Whoever was negligent, the master will have to pay. Moreover, in those states which deem the surgeon the ad hoc "master" of everyone in the room during the course of the operation, see text

posed case has no more way of knowing who went wrong than of knowing what went wrong; indeed, if he knew the former he would be well on the way to knowing the latter, and would have much less need to plead in terms of res ipsa loquitur in the first place. If, however, it were determined that one attempting to utilize res ipsa loquitur must be able to pinpoint the negligent actor (being freed, that is, only from the need to prove the contours of the negligent act) then this would follow: in any situation involving more than one possible negligent actor, where moreover no single defendant would ordinarily be responsible for all of the possible negligent actors, res ipsa loquitur would not be an acceptable theory and a verdict in favor of all of the defendants would have to be directed. The net effect of that would be that in the vast majority of team-surgery cases, since the hospital is ordinarily not the "master" of the surgeon, and often is not the "master" of the anesthesiologist, the doctrine of res ipsa loquitur would be inapplicable. And, indeed, that is the way many courts have come out.187 If, however, a court faced with this state of affairs decided that it was after all obvious that someone in the room was negligent, and since the plaintiff, unconscious at the critical time, had no better way of knowing who it was than what it was that went wrong, it was up to each defendant to prove it wasn't he, in the absence of sufficient exculpating evidence the court might allow a verdict against all of the defendants. 188 From the point of view of the party with the deepest pocket, this would be tantamount to making him responsible for the acts of everyone in the room, precisely the effect which would be reached were he the "master" of all the other participants. Concededly, in form he is not being held vicariously liable for anyone else's error, but is only being held responsible for his failure to prove his own absence from error. 189 But when the money

accompanying notes 195-204 infra, again no significant problem arises (assuming the surgeon's pocket is sufficiently plenteous).

^{187.} In addition to those courts which take the position that res ipsa loquitur is never applicable in a malpractice action, e.g., Visingardi v. Tirone, 178 So. 2d 135 (Fla. Dist. Ct. App. 1965); Lane v. Calvert, 215 Md. 457, 138 A.2d 902 (1957); DeFord v. McMenamin, 79 York Leg. Rec. 113 (Pa. C.P. 1965) are those which recognize its availability in malpractice cases but not when the party responsible cannot be identified. E.g., Shutts v. Siehl, 109 Ohio App. 145, 164 N.E.2d 443 (1959); MacDonald v. Pottinger, [1952] N.Z.L.R. 196 (Sup. Ct.); cf. Shannon v. Jaller, 6 Ohio App. 2d 206, 217 N.E.2d 234 (1966) (cannot be used against party not in "control" in operating room).

^{188.} See Frost v. Des Moines Still College of Osteopathy and Surgery, 248 Iowa 294, 79 N.W.2d 306 (1956).

^{189.} Of course proof of personal innocence is permissible, and the right to present it is not an empty one; in numerous cases physicians have successfully escaped liability by presenting such evidence. See Landerman v. Hamilton, 230 Cal. App. 2d 782, 41 Cal. Rptr. 335 (1964); Ragusano v. Civic Center Hosp. Foundation, 199 Cal. App. 2d 586,

is counted at the end of the year, that particular subtlety will not show up, and the ultimately stuck defendant will not find his temper sweetened by his knowledge that while he has no idea exactly what (if anything) went wrong, he knows it wasn't he.

The gross illogic of this particular "agency use" of res ipsa loquitur does not, of course, invalidate it, not even when its intellectual offensiveness is coupled with the obvious fact that in at least some of the cases one party will pay for another's error. After all, that is the situation in true respondeat superior cases too. In any event, a number of cases can be found wherein the court found it possible to allow res ipsa loquitur to be applied in a case involving two or more parties neither responsible for each other's actions and for whose actions no other single party was responsible, typically cases in which it might have been either the patient's "independent" physician, or a hospital employee, who was at fault. In the superior cases in the case of the cases one party will be applied in a case involving two or more parties neither responsible for each other's actions and for whose actions no other single party was responsible, typically cases in which it might have been either the patient's "independent" physician, or a hospital employee, who was at fault.

It has been suggested that the manifest illogic of such application can be eliminated by viewing res ipsa loquitur not as an evidentiary device, but as a substantive decision that in this species of case the burden of proof be shifted to the defendants to make the burden of the inexplicable fall on someone other than the injured plaintiff.¹⁹² Viewed in such terms, the questions become those solely of recompensatory policy, which are not our primary interest here. What is of interest is the fact that under this particular application of res ipsa loquitur a physician may become responsible for the errors of someone other than himself or his chosen employees, and that would include hospital-employed paramedicals. To the extent that additional jeopardy attaches, the physicians will undoubtedly be far more interested in

¹⁹ Cal. Rptr. 118 (1962); DeLaughter v. Womack, 250 Miss. 190, 164 So. 2d 762 (1964); Poor Sisters of St. Francis v. Long, 190 Tenn. 434, 230 S.W.2d 659 (1950).

^{190.} In fact, the defendant at least has the opportunity to disprove his own fault under res ipsa loquitur and thus escape liability, whereas when he is charged with liability under respondeat superior it is assumed that he is without personal fault, but his blame-lessness is nonetheless irrelevant.

^{191.} The leading case is Ybarra v. Spangard, 25 Cal. 25 486, 154 P.2d 687 (1944). See also Landerman v. Hamilton, 230 Cal. App. 2d 782, 41 Cal. Rptr. 335 (1964); Ragusano v. Civic Center Hosp. Foundation, 199 Cal. App. 2d 586, 19 Cal. Rptr. 118 (1962); Frost v. Des Moines Still College of Osteopathy and Surgery, 248 Iowa 294, 79 N.W.2d 306 (1956); Las Vegas Hosp. Ass'n v. Gaffney, 64 Nev. 225, 180 P.2d 594 (1947); Matlick v. Long Island Jewish Hosp., 25 App. Div. 2d 538, 267 N.Y.S.2d 631 (1966); Poor Sisters of St. Francis v. Long, 190 Tenn. 434, 230 S.W.2d 659 (1950); Danville Community Hosp. v. Thompson, 186 Va. 746, 43 S.E.2d 882 (1947).

These holdings should be distinguished from those in which the theory was one of actual negligence by several of the persons in the operating room. E.g., Weiss v. Rubin, 11 App. Div. 2d 818, 202 N.Y.S.2d 274 (1960) (really stretching the facts to find negligence by the surgeon); Conrad v. Lakewood General Hosp., 410 P.2d 785 (Wash. 1966).

^{192.} See Louisell & Williams ¶¶ 15.03-15.08.

who shares the amphitheatre with them, and that interest might be expressed as hostility to hospital experimentation with paramedical personnel. One hardly thinks that this particular hurdle is insurmountable, but it is there.

2. "Captain-of-the-ship"

The second crack in the cylinder wall (and the second and somewhat higher hurdle to the easy use of paramedical personnel) is more straightforward in its search for a pocket deep enough for recompense in the face of a master-servant situation which yields an exempt master: it goes in search of another "master" who is not exempt.

It is a well known doctrine of agency law that a man may indeed serve two masters, either simultaneously, or consecutively for the nonce. 103 Let us say, for instance, that a truck driver shows up at the St. Louis plant of a consignee who says to him, after the truck is unloaded, "Here's ten bucks; run this box over to Harry Jones in Clayton for me." If the driver negligently hits a pedestrian on the trip, though he remains in the general employ of the trucking firm which pays his salary and so on, he may also be considered the "servant" of the St. Louis consignee while on the trip to Clayton, and the consignee is liable under respondeat superior for his negligence toward the pedestrian. (Under what circumstances his general employer is also liable need not in detail detain us here, 194 but it should be pointed out immediately that he can be, and such fact is often overlooked by courts, even in medical malpractice contexts.) Many courts, led by Pennsylvania, have taken this "borrowed-servant doctrine" and applied it to make the surgeon in charge of an operation responsible for any negligence that takes place during (and even not quite "during") an operation, even though it is perfectly clear that if there was any negligence it was committed either by full-time employees of the hospital, or by other self-employed independent-contractor physicians also taking part in the operation.

The metaphor, at least in Pennsylvania, is nautical: the surgeon-inchief is "captain of the ship." The theory, in Pennsylvania and else-

^{193.} See generally Mechem §§ 453-68; Restatement (Second) of Agency §§ 226-27 (1958).

^{194.} See MECHEM §§ 457-68.

^{195.} The origin of the phrase is most likely McConnell v. Williams, 361 Pa. 355, 65 A.2d 243 (1949):

[&]quot;... he [the surgeon] is in the same complete charge of those who are present and assisting him as is the captain of a ship over all on board." 361 Pa. at 362, 65 A.2d at 246.

The footnote backing up this remark, interestingly enough, cites only actual maritime cases.

where, is that since the surgeon at an operation has the *right* to control the activities of everyone in the room, that is sufficient, by itself, to make him a "master" for *respondeat superior* purposes, even though all of the other criteria of servanthood—permanency of relationship, source of remuneration, professional expertise of the servant, and so on¹⁹⁶—are totally lacking. The reasoning is simple: (1) a master is responsible for the negligent acts of his servants; (2) a master is one who has the power to control the acts of another; (3) a surgeon has the right to control the acts of everyone in an operating room; (4) a surgeon is responsible for the negligent acts of everyone in an operating room. The result is also simple: the surgeon pays. And all of this without the elaborate rigamarole which goes into an attempt to get the same result via the *res ipsa loquitur* route.

There are, however, several difficulties with this formulation. First of all, it depends upon the assumption that "right to control" is not a necessary ground (if it is even that) for a finding of "masterhood," but a sufficient ground. That is, it assumes that if the statement "all masters are persons who have the right to control" is true, 197 then the statement "all persons who have the right to control are masters" is also true. But the latter is not true. Right to control by itself is not a sufficient ground for the imputation of mastership; mothers, for instance, are not, without personal fault, liable for the torts of their children, nor are foremen responsible for the negligent acts of employees over whom they have the right of control. The correct statement is more like "even if all masters are persons who have the right to control, not all persons who have the right to control are masters," and that, obviously enough, leaves the critical question hanging. When are they and when aren't they? Well, one can say with the Restatement, that depends on a lot of other things. 198

A second problem with the captain-of-the-ship formulation is that it is most likely supported by false premises about team surgery. It is most likely *not* true that the surgeon has even the *right* to control the activities of certain of the other persons in the operating room during the operation,

^{196.} See RESTATEMENT (SECOND) OF AGENCY § 220 (1958).

It might be well to note that the missing criteria are the "mercantile" ones, that is, the ones which indicate that it is the master's "enterprise" which is being forwarded. See text accompanying notes 147-48 supra.

^{197.} And even that may not be true. For instance, it is possible that a hospital does not have the right to control the professional actions of a full-fledged physician, even if he is a full-time salaried employee, but nevertheless the hospital may be held liable for that physician's malpractice. See text accompanying notes 175-76 supra.

^{198.} See RESTATEMENT (SECOND) OF AGENCY § 220(2) (a)-(j) (1958). See also MECHEM § 415 ("... most accurately described as a matter of intuition. ...").

notably the anesthesiologist. 189 But still more important, going to the heart not only of borrowed-servant doctrine but of control-oriented respondeat superior doctrine in general, is that whether or not the surgeon has the right to control all the other members of the team, during a modern major operation he certainly does not have the actual power to do so. A surgeon is hardly to be expected to ask someone to hold this heart while he checks to see if one of the nurses or attendants is correctly adjusting a heat lamp so it does not burn the patient. And it is questionable whether he has the power, in the sense of being by knowledge and training prepared to do so, to direct the activities of anesthesiologists, heart-lung-machine operators and other persons of similar highly trained specialization. One can, of course, repeat again that respondeat superior liability has, or at least ought to have, nothing to do with investigations into the master's own delict, that as to a master it is always liability without fault. The added difficulty in the operatingroom cases is that the surgeon's liability is there based solely on "control" and "right to control," and he generally has none of the former, and frequently none of the latter.

In any event, the cases dealing with attempts to stick the surgeon with liability for errors taking place in an operating room reflect all of the above-noted difficulties. There are those in which the imputed liability question did not arise, or was made not to arise, by finding some actual personal negligence by the surgeon,²⁰⁰ though this personal-negligence element has sometimes been supplied by inventing an unarticulated rule of law that a surgeon has a duty actively to supervise every single procedure in the operating room.²⁰¹ There are other cases, many of them, in which the surgeon's liability has been refused when the alleged negligent act took

^{199.} See Dunlap v. Marine, 242 Cal. App. 2d 162, 51 Cal. Rptr. 158 (1966); Thompson v. Lillehei, 164 F. Supp. 716 (D. Minn. 1958), aff'd, 273 F.2d 376 (8th Cir. 1959), especially 273 F.2d at 382 n.4 which reviews the cases recognizing divided responsibility in the operating room.

^{200.} See Beadles v. Matayka, 135 Colo. 366, 311 P.2d 711 (1957) (surgeon sent orderly on errand and patient fell off table); Davis v. Potter, 51 Idaho 81, 2 P.2d 318 (1931); Cohen v. Swiller, 17 Misc. 2d 921, 186 N.Y.S.2d 844 (Sup. Ct. 1959); French v. Fischer, 50 Tenn. App. 587, 362 S.W.2d 926 (1962). See also Voss v. Bridwell, 188 Kan. 643, 364 P.2d 955 (1961); Yorston v. Pennell, 397 Pa. 28, 153 A.2d 255 (1959) (negligent selection of assistants).

^{201.} See, e.g., Davis v. Potter, 51 Idaho 81, 2 P.2d 318 (1931) (postoperative: doctor "supervised" placing patient in bed in which there was a too-hot hot-water bottle); Weiss v. Rubin, 11 App. Div. 2d 818, 205 N.Y.S.2d 274 (1960) (surgeon failed to check blood type; doing so would have necessitated stopping operation and rendering himself unsterile); Rockwell v. Stone, 404 Pa. 561, 173 A.2d 48 (1961) (preoperative anesthesia error).

place before the ship set sail or after it returned to port.²⁰² There are still other cases in which the court refused to hold the surgeon under any borrowed-servant theory, the more recent cases generally taking cognizance of the fact that the surgeon did *not* have the power to control the acts of *some* of the people, particularly other specialists, who were presumably negligent in the operating room.²⁰³ But there are also a fair number of cases in which the captain-of-the-ship doctrine was allowed its full flowering, sometimes with the ironic result that the hospital, the regular employer of the actually negligent person, was freed of any liability.²⁰⁴

202. Beary v. Smart, 242 Cal. App. 2d 13, 51 Cal. Rptr. 306 (1966) (postoperative); Sherman v. Hartman, 137 Cal. App. 2d 589, 290 P.2d 894 (1955) (postoperative); Bria v. Saint Joseph's Hosp., 153 Conn. 626, 220 A.2d 29 (1966) (pre- and postoperative); Porter v. Patterson, 107 Ga. App. 64, 129 S.E.2d 70 (1962) (preoperative); Stapler v. Brownstein, 261 Ill. App. 57 (1931) (preoperative); Hale v. Atkins, 215 Mo. App. 380, 256 S.W. 544 (1923) (postoperative); Nichter v. Edmiston, 81 Nev. 606, 407 P.2d 721 (1965) (preoperative); Bakal v. University Heights Sanitarium, 198 Misc. 651, 99 N.Y.S.2d 814 (Sup. Ct. 1950), aff'd in part, rev'd in part on other grounds, 277 App. Div. 572, 101 N.Y.S.2d 385 (1950), aff'd mem., 302 N.Y. 870, 100 N.E.2d 51 (1951) (preoperative); Blackman v. Zeligs, 90 Ohio App. 304, 103 N.E.2d 13 (1951) (preoperative); Scacchi v. Montgomery, 365 Pa. 377, 75 A.2d 535 (1950) (postoperative); Shull v. Schwartz, 364 Pa. 554, 73 A.2d 402 (1950) (postoperative); Stewart v. Manasses, 244 Pa. 221, 90 A. 574 (1914) (postoperative); Meadows v. Patterson, 21 Tenn. App. 283, 109 S.W.2d 417 (1937) (postoperative); Huggins v. Hicken, 6 Utah 2d 233, 310 P.2d 523 (1957) (postoperative). But see Rockwell v. Stone, 404 Pa. 561, 173 A.2d 48 (1961) (surgeon responsible for preoperative negligence); Yorston v. Pennell, 397 Pa. 28, 153 A.2d 255 (1959) (same).

203. See Thompson v. Lillehei, 164 F. Supp. 716 (D. Minn. 1958), aff'd, 273 F.2d 376 (8th Cir. 1959) (excellent examination of the realities of team surgery); Dunlap v. Marine, 242 Cal. App. 2d 162, 51 Cal. Rptr. 158 (1966); Salgo v. Board of Trustees, 154 Cal. App. 2d 560, 317 P.2d 170 (1957) (amicus brief filed by American College of Surgeons); Hallinan v. Prindle, 17 Cal. App. 2d 656, 62 P.2d 1075 (1936) (surgeon not responsible for nurse's negligence); Guell v. Tenney, 262 Mass. 54, 159 N.E. 451 (1928) (lost sponge); Watson v. Fahey, 135 Me. 376, 197 A. 402 (1938); Niebel v. Winslow, 88 N.J.L. 191, 95 A. 995 (1915); cf. Shannon v. Jaller, 6 Ohio App. 2d 206, 217 N.E.2d 234 (1966). An appreciation of the realities of team surgery, however, is not always enough to lead to the court's exoneration of the surgeon. See, e.g., Mazer v. Lipschutz, 327 F.2d 42 (3d Cir. 1963).

204. See Mazer v. Lipschutz, 327 F.2d 42 (3d Cir. 1963) (hospital settled prior to trial, see 360 F.2d 275 (3d Cir. 1966)); Honeywell v. Rogers, 251 F. Supp. 841 (W.D. Pa. 1966) (notable for manipulation of "control" fictions); Ragusano v. Civic Center Hosp. Foundation, 199 Cal. App. 2d 586, 19 Cal. Rptr. 118 (1962) (jury exonerated physicians; new trial against hospital alone); Beadles v. Metayka, 135 Colo. 366, 311 P.2d 711 (1957) (hospital freed); Voss v. Bridwell, 188 Kan. 643, 364 P.2d 955 (1961); Jordan v. Touro Infirmary, 123 So. 726 (La. Ct. App. 1922); Sancier v. Ross, 112 Miss. 306, 73 So. 49 (1916); Randolph v. Oklahoma City Gen. Hosp., 180 Okla. 513, 71 P.2d 607 (1937); Aderhold v. Bishop, 94 Okla. 203, 221 P. 752 (1923) (hospital freed); Rockwell v. Stone, 404 Pa. 561, 173 A.2d 48 (1961); McConnell v. Williams, 361 Pa. 355, 65 A.2d 243 (1949); Minogue v. Rutland Hosp., 119 Vt. 336, 125 A.2d

This area of the law is still developing, and the precise contours of that development, again, are not our primary focus here. What is of central importance for our inquiry—legal hindrances to the full utilization of medical manpower—lies in the fact that the captain-of-the-ship doctrine is but another instance of a physician's liability for the errors of one whom he did not choose. The danger is that the doctor might choose to supervise the activities of his ad hoc assistants more closely if their errors become his, in other words that he might choose to turn the law's misleading "right to control" into an attempt at real supervision and control, to the detriment of his concentration on what he himself, and he only, can do best. Moreover, a doctor who is going to find himself willy-nilly responsible for the actions of persons whom he neither hires nor pays might be tempted to oppose any attempt by the actual employer (the hospital) to utilize personnel (e.g., paramedicals) to render their operations more efficient. In short, it is one thing to be willing to be responsible for one's own employees, selected and to some extent trained and supervised by oneself. It is another thing lightly to accept liability for the negligent acts of assistants thrust upon oneself by a hospital, especially if these assistants are not even "professionals" as that term has been understood prior to the coming of paramedical personnel to the operating room scene.

G. Paramedical Personnel

Up to this point our discussion has centered upon ways in which one person, a physician or a hospital, may become civilly responsible for the negligence of another. This has been viewed as a jeopardy additional to that which one runs for his own negligence. Insofar as this jeopardy may to some extent inhibit the use of assistants, or increase the time spent unnecessarily looking over their shoulders, this danger of vicarious liability lessens the effectiveness of attempts to substitute for valuable doctor time

^{796 (1956) (}hospital freed); Hillyer v. Governors of St. Bartholomew's Hosp., [1909] 2 K.B. 820 (C.A.) (hospital freed).

In a number of cases, however, where the suit was against the hospital, courts have refused to free the hospital of liability merely because the allegedly negligent servant was "borrowed" by a visiting-staff physician. See Tyler v. Touro Infirmary, 169 So. 2d 574 (La. Ct. App. 1964); Matlick v. Long Island Jewish Hosp., 25 App. Div. 2d 538, 267 N.Y.S.2d 631 (1966); Hillcrest Medical Center v. Wier, 373 P.2d 45 (Okla. 1962); ef. Dickerson v. American Sugar Ref. Co., 211 F.2d 200 (3d Cir. 1954) (industrial clinic). Sometimes the question is left to the jury under the assumption that either the surgeon or the hospital, but not both, could be liable. See McCowan v. Sisters of the Most Precious Blood, 208 Okla. 130, 253 P.2d 830 (1953).

See generally, for a critical survey of the borrowed-servant doctrine in malpractice cases, Louisell & Williams ¶ 16.05. The authors are especially critical of automatically freeing the hospital. See id. at 498.

equally useful quasi-doctor time. If a truck owner must ride beside his driver on every trip, or, more pertinently, if a doctor must hover over his assistant on every little procedure, it is hardly worthwhile to have an assistant at all. If the law were to develop such that if the computer suddenly blows a secret fuse and comes up with the wrong result the doctor, innocent as the driven snow, will still be held liable for the results of that error, a physician would tend to be more chary of computers than he would otherwise be. But it would not necessarily make him refuse to use one, any more than the respondeat superior doctrine has ended the utilization of servants. In brief, that a certain technique increases a person's risk does make him less inclined to use it, but, given sufficient gains from the use of the technique, he may use it anyway, charging off the extra cost to the hazards of life and commerce.

But if a doctor were to find himself responsible for every untoward result of a procedure carried out by an assistant, without reference to whether or not that assistant had been negligent, then the use of such assistants would be effectively suppressed. It is one thing to be liable for having a negligent servant, but it is quite another to be liable for having one at all. The nature of modern medicine is such that jeopardy for all bad results would put an enormous additional burden on whoever must bear it.

Implicit in the rules making a doctor liable for the negligent acts of his servants is his "right" to use them in the first place. If the plaintiff's case could stop after proof of (1) injury and (2) employment, it would. This right to employ assistants is hardly surprising in most circumstances, nor does it raise very much in the way of legal complication. Certainly if a doctor hires a high school graduate as his chaffeur the doctor is liable for the chauffeur's negligent accidents on ordinary respondent superior grounds. But he is not responsible merely because he chose not to drive his own car. Similarly, if a radiologist employs a strong young man to help patients on and off of his X-ray table, and to manipulate the table's hydraulic controls, he would hardly be deemed negligent per se for the mere use of someone without a medical degree to do such a job. In both of these cases the physician is perfectly capable of doing the job himself, but he is not held liable merely because he delegated a task within his capability. Rarely indeed has negligence even been alleged of such delegation. In fact, a doctor might be negligent in not delegating a particular job to someone better able to do it, though such cases have thus far been confined to failures by less specialized physicians to utilize the services of specialists.205

^{205.} See, e.g., Wild v. Roman, 91 N.J. Super. 410, 220 A.2d 711 (1966).

What, however, of procedures which a physican could presumably do better than anyone else (especially in dealing with reasonably foreseeable emergencies) which he might wish, nevertheless, to delegate to a non-physician, or even to a non-professional. Again it must be recalled: the more tasks a doctor does not himself have to carry out, the more of his time is freed to do the things for which he is irreplaceable. If it takes ten percent of a radiologist's time to place his patient correctly in front of his X-ray machine, permitting him to use a healthy high schooler to do it instead creates, in effect, one tenth again as many radiologists as before, and at a considerably lower (financial) cost than graduating an additional ten percent and training them in the specialty.²⁰⁰ How far, however, can this delegation go?

It would be one's initial reaction that the use of paramedical personnel should present no unique malpractice problems. Under the usual malpractice test, the question is whether the doctor, in carrying out a particular procedure in a particular way, departed from the standard practice of other physicians similarly situated.²⁰⁷ The use of a paramedical delegate would seem to present problems no different from those presented when a physician decides to use a boiler sterilizer rather than a pressure autoclave: is the method he has chosen to produce the result warranted. In fact, this delegation-to-another problem is frequently presented in such terms when the alleged negligence is the physician's choice of another physician, either as a substitute or as a consultant.²⁰⁸

In practice, however, the use of paramedical delegates presents a vast array of new considerations because the delegation of arguably "medical" procedures to a non-physician is open to characterization as "aiding and abetting the practicing of medicine without a license." Now, this problem must be put into the perspective of current practices. Physicians currently delegate to non-physicians the doing of innumerable things which are clearly within the ambit of a licensed physician's training and experience and which, at least ex hypothesi, it would be somewhat safer for the physician to do himself. Interns, for instance, who are often not even licensed during their internships, 209 are given critical patient-care responsibilities, including even spot diagnosis, prescription and treatment, minor surgery, obstetrical deliveries, lumbar punctures, and so forth. 210 But they are not

^{206.} See note 11 supra.

^{207.} See "The Malpractice Standard of Care" supra, and Appendix A.

^{208.} See note 160 supra.

^{209.} Stetler & Moritz 366-67; B. Shartel & M. Plant, The Law of Medical Practice \S 5-12 (1959).

^{210.} See A. Bernstein, Intern's Manual (3d ed. 1965) for some indication of what

deemed to be "practicing medicine without a license."²¹¹ Nurses are permitted to carry out a vast array of procedures which are characterizable as "medical," including giving injections and administering anesthesia, even when not specially licensed.²¹² It is a commonplace that critical hematological and general pathological procedures are commonly carried out by mere technologists or technicians.²¹³ Indeed, these particular "medical" delegations are so commonplace as to provide only rare instances of legal significance.²¹⁴ To some extent this is because the ordinary malpractice standard is being applied, rarely explicitly but often sub rosa (and even, one assumes, by plaintiff's attorneys in deciding how to frame their cases). In other words, physicians and hospitals employ many "paramedicals" now, without additional malpractice jeopardy, even when some of them are "unlicensed."

But that seems to be an effect of custom and immemorial usage²¹⁵ which, as we have seen,²¹⁶ is capable of legitimatizing almost any practice

interns may be called upon to deal with, and Dr. X, INTERN (1965) for recollections of what one intern did face.

See also J. Knowles, The Balanced Biology of the Teaching Hospital, in Hospitals, Doctors and the Public Interest 22, 29 (1965) ("[T]he patients are his own, and the internship is judged by just how complete his responsibility is.").

211. See Watson v. Centro Espanol De Tampa, 158 Fla. 796, 30 So. 2d 288 (1947); Rush v. Akron Gen. Hosp., 84 Ohio L. Abs. 292, 171 N.E.2d 378 (Ct. App. 1957); B. SHARTEL & M. PLANT, supra note 209.

212. See Frank v. South, 175 Ky. 416, 194 S.W. 375 (1917); Wells v. McGehee, 39 So. 2d 196 (La. Ct. App. 1949) (anesthesia given by non-R.N.,); Ramsland v. Shaw, 341 Mass. 56, 166 N.E.2d 894 (1960) (anesthesia); Penaloza v. Baptist Memorial Hosp., 304 S.W.2d 203 (Tex. Civ. App. 1957) ("vocational nurse" permitted to give medication); Huss v. Vande Hey, 29 Wis. 2d 34, 138 N.W.2d 192 (1965) (giving physiotherapy all right); Louisell & Williams ¶ 16.05, at 497; B. Shartel & M. Plant, supra note 209. ing a nurse to do too much, despite evidence of the permissive custom to that effect. E.g., also 9 U. Kan. L. Rev. 258 (1960) for a letter from the then Kansas Attorney General on the right of "qualified medical technicians" to take blood for drunk-driving blood tests.

214. Cases do exist, however, where a physician has been found negligent for allowing a nurse to do too much, despite evidence of a permissive custom to that effect. E.g., Delaney v. Rosenthal, 347 Mass. 143, 147, 196 N.E.2d 878, 880 (1964):

A girl who had merely graduated from high school . . . removed stiches, squeezed pus out of . . . [a] thumb, prescribed pills, injected penicillin, removed bandages . . . and even advised the plaintiff as to the treatment to be followed.

See also McKinney v. Tromly, 386 S.W.2d 564 (Tex. Civ. App. 1964) (anesthesia); Barber v. Reinking,—Wash. 2d—, 411 P.2d 861 (1966) (practical nurse giving innoculation).

215. See, e.g., Rush v. Akron Gen. Hosp., 84 Ohio L. Abs. 292, 294, 171 N.E.2d 378, 380 (Ct. App. 1957) ("... the employment of interns and residents by hospitals has been an accepted feature of medical education for many years ... throughout the various states...").

216. See "The Malpractice Standard of Care" supra.

of the medical profession. Ordinarily, however, one who "practices medicine" must be licensed by the state in which he practices before he legally can do so. It is probable that unless he goes through whatever administrative procedure is required for a license (or an exemption from licensure) to practice medicine in Illinois, the Chairman of the Department of Internal Medicine at St. Louis' Washington University Medical School cannot legally suggest to someone across the river in Illinois that he take a couple of aspirin for his headache. And it is arguable that one who employs a paramedical to carry out "medical procedures" might be guilty of aiding and abetting the "practice of medicine" without a license.

Of course, what constitutes the "practice of medicine" or of some other healing art is a question of almost criminal complexity.²¹⁷ Not only does the terminology of the various licensing statutes vary widely, but their administrative and judicial interpretations have done nothing to produce a simple, generalized standard. Primarily, of course, these statutes and administrative procedures are designed to assure that the public not have its health needs provided by persons who have not a certain minimum complement of training, intelligence, probity, honesty and experience. To that end procedures have been developed to catch and stop wholly unqualified persons from setting up as healers and meddling with the human body.²¹⁸ But the precise contours of the regulation in any jurisdiction

^{217.} For a thorough and up-to-date study of this and all other aspects of medical licensure, see E. Forgotson & R. Roemer, Legal Regulation of Health Manpower in the United States (1967).

^{218.} Cases involving those without even a pretension to licensed membership in any "school" of medical practice during the last twenty years include State v. Horn,—Ariz.—, 422 P.2d 172 (1966); People v. Augusto, 193 Cal. App. 2d 253, 14 Cal. Rptr. 284 (1961) ("own system"); Rubin v. Douglas, 59 A.2d 690 (D.C. Mun. Ct. App. 1948) (massaging for arthritis); Snedeker v. Vernmar, Ltd., 139 So. 2d 682 (Fla. 1962) (masseur); State Board of Medical Examiners v. Craft, 93 So. 2d 298 (La. Ct. App. 1957) (masseur-not practicing unless holding self out as physician); State v. Moore, 141 Mont. 86, 375 P.2d 218 (1962) (layman burning off moles); State v. Bain, 130 Mont. 90, 295 P.2d 241 (1956) (physiotherapist); People v. Dennis, 271 App. Div. 526, 66 N.Y.S.2d 912 (1946) (massage attendant taking blood pressure-nurse's customary rights distinguished); People ex rel. Burke v. Steinberg, 190 Misc. 413, 73 N.Y.S.2d 475 (N.Y.C. Magis. Ct. 1947) (nurse setting up on own to give [fake] smallpox vaccinations); Commonwealth v. Roberts, 29 Pa. D. & C. 2d 12 (Phila. County Ct. 1962) (faith healer giving olive oil and alcohol mixture); Webber v. State, 370 S.W.2d 889 (Tex. Crim. App. 1963) (cosmetologist essaying baldness cure); Flournoy v. State, 174 Tex. Crim. App. 263, 356 S.W.2d 147, (1962) (layman setting up as physician); Masters v. State, 170 Tex. Crim. App. 471, 341 S.W.2d 938 (1960) (hypno-

The line between the foregoing cases and those involving persons who claim to be practicing the tenets of a particular school, licensed or not, is often exceedingly fine. See note 220 infra.

are additionally shaped by the pressures of having more than one "school" of healing in existence²¹⁹ (including some of marginal scientific justification)²²⁰ and the possibility of commercial competition between licensed

219. The continuing struggle among osteopaths, chiropractors and medical doctors provides much of the fun. See England v. Louisiana State Bd. of Medical Examiners, 263 F.2d 661 (5th Cir. 1959) (attempt to outlaw chiropractic); United States v. Shock, 379 F.2d 29 (8th Cir. 1967) and United States v. Article Consisting of 2 Devices, 255 F. Supp. 374 (W.D. Ark. 1966) (chiropractors characterized by government as "laymen" for purposes of receiving "medical" devices); Crees v. State Bd. of Medical Examiners, 213 Cal. App. 2d 195, 28 Cal. Rptr. 621 (1963) (limitations on procedures open to chiropractors); Brown v. Guy, 144 Cal. App. 2d 659, 301 P.2d 413 (1956) (chiropractor cannot pierce skin); State ex rel. Board of Medical Registration & Examination v. Goodman, 230 Ind. 38, 101 N.E.2d 421 (1951) (chiropractic is "practice of medicine"); Cummins v. Donley, 173 Kan. 463, 249 P.2d 695 (1952) (osteopath held to physician's standard of care); State Bd. of Medical Examiners v. Anton, 105 So. 2d 303 (La. Ct. App. 1958) (chiropractic is "practice of medicine"); Josselyn v. Dearborn, 143 Me. 328, 62 A.2d 174 (1948) (osteopath only held to care standard of own school); Bryant v. Biggs, 331 Mich. 64, 49 N.W.2d 63 (1951) (need osteopath to testify against osteopath); Harris v. State, 229 Miss. 755, 92 So. 2d 217 (1957) (chiropractor who gives injection is "practicing medicine"); State ex rel. Gibson v. State Bd. of Chiropractic Examiners, 365 S.W.2d 773 (Mo. Ct. App. 1963) (chiropractor may not give drugs); Chiropractic Ass'n v. Hilleboe, 12 N.Y.2d 109, 187 N.E.2d 756 (1962) (regulation forbidding X-raying by chiropractors upheld); Riddet v. Allen, 23 App. Div. 2d 458, 261 N.Y.2d 562 (1965) ("chiropractors . . . not authorized . . . to diagnose or treat patients for disease."); State v. Baker, 229 N.C. 73, 48 S.E.2d 61 (1948) (osteopaths can give vitamins but not injections); Foxton v. Woodmansee, 236 Ore. 271, 388 P.2d 275 (1964) (physician can testify against osteopath); Ison v. McFall, 400 S.W.2d 243 (Tenn. App. 1964) (physician cannot testify against chiropractor); Sims v. Gaffney, 227 S.W.2d 848 (Tex. Civ. App. 1950) (allopathic doctor cannot testify against osteopath).

220. In this category are those practitioners of "schools" of health service which are generally not subject to licensing, and which make their defense on the basis that they are not practicing medicine at all. The largest category is the naturopaths and "drugless healers." See Shawver v. State, 103 Ga. App. 1, 118 S.E.2d 202 (1961); State ex rel. State Bd. of Medicine v. Smith, 81 Idaho 103, 337 P.2d 938 (1959) (state cannot forbid practice of naturopathy); Smith v. State Bd. of Medicine, 74 Idaho 191, 259 P.2d 1033 (1953); State v. Errington, 355 S.W.2d 952 (Mo. 1962), appeal dismissed, 371 U. S. 3 (1962); State ex rel. Collet v. Errington, 317 S.W.2d 326 (Mo. 1958); State ex rel. Collet v. Scopel, 316 S.W.2d 515 (Mo. 1958); State v. Leimer, 382 S.W.2d 718 (Mo. Ct. App. 1964); State v. Henning, 83 Ohio App. 445, 78 N.E.2d 588 (1948); Davis v. Beeler, 185 Tenn. 638, 207 S.W.2d 343 (1947), appeal dismissed, 333 U.S. 859 (1948); Estep v. State, 183 Tenn. 325, 192 S.W.2d 706 (1946); United American Ins. Co. v. Selby, 161 Tex. 162, 338 S.W.2d 160 (1960); Keahey v. State, 168 Tex. Crim. App. 331, 327 S.W.2d 759 (1959); Kelly v. Carroll, 36 Wash. 2d 482, 219 P.2d 79 (1950), cert. denied, 340 U.S. 892 (1950); Hahn v. State, 78 Wyo. 258, 322 P.2d 896 (1958). But occasionally one finds other "schools" setting out to treat diseases according to their own lights. See, e.g., Evans v. Unruh, 79 S.D. 53, 107 N.W.2d 917 (1961) and Evans v. Hoyme, 78 S.D. 509, 105 N.W.2d 71 (1961) involving practitioners of "Swedish movements" (the allegedly broadly therapeutic massage of the foot below the ankle). As one creeps down the patient's back from chiropractic to Swedish movements, medical practitioners and certain of their adjunctive commercial organizations, for instance between opthalmologists, optometrists, and oculists,²²¹ or dentists and dental technicians.²²² In general, the regulatory scheme takes the form of restricting certain procedures to certain types of licentiates (in greater or lesser degrees of specificity), and of forbidding unlicensed persons from holding themselves out, by the use of identifying tags like "doctor" or "physician," as being licensed.²²³ Its primary focus seems to be the prevention of unauthorized medical practice by persons inde-

the cases in this note start approaching equally valid classification with those collected in note 218 supra.

In any event, one of the important lessons to be learned from these cases is that merely giving oneself an official sounding identity in some "school" will not protect one against successful prosecution for practicing without a license if one is indeed poaching on the physician's or other licensed person's territory. See, e.g., State v. Henning, 83 Ohio App. 445, 450, 78 N.E.2d 588, 591 (1948): "... we are not interested in what constitutes naturopathy, but only in what constitutes the practice of medicine;" and Hahn v. State, 78 Wyo. 258, 269, 322 P.2d 896, 900 (1958): "Counsel claims that naturopathy is separate science, distinct from the practice of medicine. ... But naturopathy is simply one of the methods of practicing medicine. ..."

221. See, e.g., the continuing skirmish over the fitting of contact lenses as the "practice of optometry," Fields v. District of Columbia, 232 A.2d 300 (D.C. App. 1967) (optician cannot fit contact lenses); Burt v. People, 421 P.2d 480 (Colo. 1966) (oculist wins 4-3); Delaware Optometric Corp. v. Sherwood, 36 Del. Ch. 223, 128 A.2d 812 (1957) (no injunction; must use criminal law to enforce); State Bd. of Optometry v. Chester, 251 Miss. 250, 169 So. 2d 468 (1964) (oculist can fit only on prescription with fitting checked afterwards by optometrist); State Bd. of Optometrists v. Reiss, 83 N.J. Super. 47, 198 A.2d 816 (1964) (oculist loses, despite two week course at a medical school in "contact lens technician work"); State ex rel. Reed v. Kuzirian, 228 Ore. 619, 365 P.2d 1046 (1961) (only under "direct personal supervision" of licensed optometrist); State ex rel. Sahlstrom v. Malos, 442 P.2d 580 (Ore. 1967) (optician loses).

222. See Hortman v. State Bd. of Dental Examiners, 214 Ga. 560, 105 S.E.2d 732 (1958); Berry v. Koehler, 86 Idaho 225, 384 P.2d 484 (1963); Bruce v. Department of Registration and Educ., 26 Ill. 2d 612, 187 N.E.2d 711 (1963) (dentist can lose license for aiding and abetting technician's practice of dentistry); People v. Shanahan, 12 Ill. App. 2d 480, 139 N.E.2d 860 (1957); State ex rel. Zimmerer v. Clark, 252 Iowa 578, 107 N.W.2d 726 (1961); Ambrose v. Board of Dental Examiners, 78 Nev. 130, 369 P.2d 672 (1962); Cohen v. Board of Regents, 274 App. Div. 952, 83 N.Y.S.2d 449 (1948) (per curiam), aff'd mem., 299 N.Y. 582, 86 N.E.2d 106 (1949) (one year suspension of dentist for aiding and abetting technician); People v. Gurevich, 191 Misc. 338, 75 N.Y.S.2d 919 (Sup. Ct. 1947), aff'd mem., 274 App. Div. 767, 81 N.Y.S.2d 138 (1948); State v. Fishwick, 84 Ohio App. 283, 85 N.E.2d 136 (1948); Smith v. State ex rel. Bd. of Governors of Registered Dentists, 330 P.2d 366 (Okla. 1958) (dentist's license revocation for aiding and abetting reversed for lack of proof of scienter); Shewmaker v. State, 329 P.2d 858 (Okla. Cr. App. 1958); Lees v. Oster, 8 Utah 2d 141, 329 P.2d 648 (1958); State ex rel. Taylor v. Devore, 134 W. Va. 151, 58 S.E.2d 641 (1950); Huntington Dental Soc. v. Winton, 129 W. Va. 550, 40 S.E.2d 769 (1946) (dentist loses license for fronting for technician in practice of dentistry).

223. See E. FORGOTSON & R. ROEMER, supra note 217.

pendently "in business" for themselves, and most of the cases cited above deal with just such situations.²²⁴ But there is another potential evil which licensure enforcement (administrative or criminal) may be used to combat, the hiring by a qualified physician of cheap, non-professional labor to increase the number of patients he can "process" during a working day. Licensure laws are rarely directed specifically to that problem,²²⁵ but it is a particularly significant one for present purposes, for between the employment of non-professional quacks to increase the economic returns of one's practice, and the employment of paramedicals to increase its health-extending efficiency, there may often be a very fine line. There are numerous cases in which physicians have been punished for permitting non-professionals to help out in their practices where the physician's action was wholly unjustifiable,²²⁶ and there are others in which the professional justification was unclear or questionable,²²⁷ but there are also cases in

227. See Newhouse v. Board of Osteopathic Examiners, 159 Cal. App. 2d 728, 324 P.2d 687 (1958) (second-year chiropractic student allowed to do post-partum suturing in alleged emergency); Glesby v. Hartford Acc. & Indem. Co., 6 Cal. App. 2d 89, 44 P.2d 365 (1935) (allowing unlicensed employee to do unspecified procedures puts employer physician within illegal act exclusion of malpractice insurance policy). But cf. Baxter v. State, 47 So. 2d 764 (Fla. 1950) (physician's layman assistant who assisted in

^{224.} See notes 218-22 supra.

^{225.} But see Ariz. Rev. Stat. Ann § 32-1421(6) (Supp. 1967); Okla. Stat. tit. 59, § 492 (Supp. 1965) for provisions specifically permitting delegation of some medical fuctions "under the supervision" of the employing physician. Most states have no such provision, relying instead on "the definitions of functions spelled out in the licensure statutes for various kinds of other health personnel." E. Forgotson & R. Roemer, supra note 217.

^{226.} See Stuck v. Board of Medical Examiners, 94 Cal. App. 2d 751, 211 P.2d 389 (1949) (abortion mill used laymen); Rilcoff v. State Bd. of Medical Examiners, 90 Cal. App. 2d 603, 203 P.2d 844 (1949) (owner of proprietary hospital employed unlicensed persons to diagnose, perform autopsies, and treat); Hickey v. Wells, 91 So. 2d 206 (Fla. 1956) (dentist used unlicensed assistant—suspension reversed for failure of proof); Applegate v. State Bd. of Dentistry, 336 Mich. 42, 57 N.W.2d 438 (1953) (dentist used unlicensed assistant); State v. Paul, 56 Neb. 369, 76 N.W. 861 (1898) (layman performed amputation as employee of medical partnership); White v. Prospect Heights Hosp., 278 App. Div. 789, 103 N.Y.S.2d 859 (1951) (hospital orderly did catheterization); O'Neill v. Board of Regents, 272 App. Div. 1086, 74 N.Y.S.2d 762 (1947) (per curiam), appeal dismissed mem., 298 N.Y. 777, 83 N.E.2d 469 (1948) (physician employed unlicensed assistant); Gobin v. State, 9 Okla. Crim. 201, 131 P. 546 (1913) ("The medical practices act does not . . . authorize a registered physician going out and employing all the unauthorized quacks in the country to aid and assist him. . . ."); State Bd. of Medical Educ. and Licensure v. Ferry, 63 Dauph. 243 (Pa. C.P. 1952), aff'd sub nom. State Bd. of Medical Educ. v. Ferry, 172 Pa. Super. 372, 94 A.2d 121 (1953) (unlicensed person employed to give physical examinations and injections, diagnoses, etc.); State Bd. of Dental Examiners v. Fenlaw, 357 S.W.2d 185 (Tex. Civ. App. 1962) (dentist allowed 17-year old juvenile delinquent drug addicted grandson to pull teeth).

which the effect of the administrative and criminal interdiction was arguably to interrupt a worthwhile social experiment. For instance, in Magit v. Board of Medical Examiners, 228 a physician employed highly trained physicians licensed in foreign countries as anesthetists. The California Board of Medical Examiners revoked his license for unprofessional conduct. On appeal, the Supreme Court of California, sitting en banc, affirmed the Board's finding of unprofessional conduct (though remanding the case with a recommendation amounting almost to a direction to choose a penalty far less stringent than revocation), despite the fact that nurses and interns regularly administered anesthesia in California.²²⁹ In a similar case decided more recently, 230 the disciplining of a physician who aided and abetted hospital-staff practice by Japanese and Mexican licensed physicians visiting the country under a federally sponsored exchange-visitor program was upheld.231 And in a very recent case which attracted nartionwide publicity,232 at which numerous experts on the use of paramedical personnel testified in his favor, 233 a physician was convicted of aiding and abetting the unauthorized practice of medicine in permitting an experienced but unlicensed (as anything) ex-medical corpsman to drill cranial holes preparatory to brain surgery.

One would hardly wish to suggest that these specific decisions are necessarily wrong.²³⁴ But there is evidence in all of them that the motive

childbirth in alleged emergency acquitted); People v. Albert, 358 Mich. 647, 101 N.W.2d 378 (1960) (physician's chiropodist brother allowed to perform nurse-like duties at mastectomy); *In re* Flynn, 52 Wash. 2d 589, 328 P.2d 150 (1958) (unknowing hiring of unlicensed assistant not ground for revocation of dentist's license).

228. 57 Cal. 2d 74, 366 P.2d 816, 17 Cal. Rptr. 488 (1961).

229. See 57 Cal. 2d at 81-83 and 83 n. 5, 366 P.2d at 818-20 and 820 n. 5, 17 Cal. Rptr. at 490-92 and 492 n. 5 (on the effect of custom and usage on what nurses are allowed to do).

230. O'Reilly v. Board of Medical Examiners, —Cal. App. 2d—, 55 Cal. Rptr. 152 (1966).

231. In this case the Board of Medical Examiners, perhaps taking cognizance of the Magit case, imposed only a 90-day suspension and five-year probation on the offending physician. See 55 Cal. Rptr. at 158. This was still too harsh for the California Supreme Court, however, which affirmed the decision but remanded the case for reconsideration of the penalty. O'Reilly v. Board of Medical Examiners, —Cal. 2d—, 426 P.2d 167, 58 Cal. Rptr. 7 (1967).

232. See 88 TIME, December 30, 1966, at 36.

233. A copy of the verbatim transcript of the trial is in the possession of Dr. Edward Forgotson of the University of California at Los Angeles. The case was brought in a Justice Court, and there is no official or unofficial report.

234. In O'Reilly v. Board of Medical Examiners, —Cal. App. 2d—, 55 Cal. Rptr. 152 (1966), for instance, there was some additional evidence of a male nurse who was permitted to appear to patients as a "doctor." See 55 Cal. Rptr. at 158. And the medical-corpsman case seems particularly questionable. Even when done under close supervision, the drilling of cranial holes does not seem, at least to a layman, a procedure fit for even

at least of the licensed physician in each was not just to increase the lucrativeness of his practice, but to find a means of ameliorating a shortage of medical personnel in a manner arguably without significant additional risk for the patient.²⁰⁵ In each of these cases the applicable licensing system would seem clearly to have been violated. But the conclusion to be drawn from that may well be that the applicable licensing system can use some revision.²⁰⁶

Violation of the statutory and administrative scheme governing the practice of medicine in any jurisdiction may bring with it, therefore, very serious disciplinary or even criminal penalties. But the existence of the scheme itself may create a further jeopardy for anyone experimenting with paramedical personnel, even if the administrators of the licensing system forebear to act. There is a well-used doctrine of general tort law which may be summarized as follows:

Once [a] statute is . . . interpreted as designed to protect the class of persons in which the plaintiff is included, against the risk of the type of harm which has in fact occurred as a result of its violation . . . the great majority of the courts hold that an unexcused violation is conclusive on the issue of negligence, and that the court must so direct the jury.²³⁷

A few courts have reached about the same result by holding that violation of a statute raises a presumption of negligence. A considerable minority have held that statutory violation is evidence of negligence which may go to the jury.²⁵⁸ Thus, allowing a paramedical to carry out, even under general or close supervision, a procedure which might be considered the "practice of medicine" not only subjects the employer-doctor to danger of disciplinary proceedings, but substantially heightens his malpractice

an experienced layman. And there was additionally some evidence in the case that the corpsman carried out other medical procedures, including dural suturing. See TIME, supra note 232. In fact, it would seem that one of the dangers in the use of paramedical aides is their and their employers' natural temptation to extend the ambit of their operation as confidence grows.

235. See Battistella v. Society of New York Hosp., 9 App. Div. 2d 75, 78, 191 N.Y.S.2d 626, 629-30 (1959) for the suggestion that it might be permissible to use less highly qualified personnel for mass preventive medicine procedures, in that case mass X-ray screening for tuberculosis. Cf. Application of Cornell Legal Aid Clinic, 26 App. Div. 2d 790, 273 N.Y.S.2d 444 (1966) for the New York court's carefully guarded permission for law students to appear in a narrow category of courtroom procedures.

236. See "General Conclusion and Recommendations" infra.

237. W. Prosser, Torts § 35 at 202 (3d ed. 1964). See also Restatement (Second) Torts §§ 286-88C (1965).

238. W. Prosser, supra note 237. See also 2 F. Harper & F. James, Torts § 17.6 (1956).

jeopardy. Even if the physician is of the honest and reasonable belief that the paramedical delegate is as well qualified, perhaps even better qualified, to carry out the procedure than he himself, and even if the delegate does in fact carry out that procedure as well and carefully as it can be carried out, if in fact the result of the paramedical's ministrations is harmful to the patient, there is substantial risk that the physician will be civilly liable for the injury suffered by the patient. Naturally the risk is highest in those jurisdictions which view violation of a statute as negligence per se, but it is increased even where the violation is viewed as evidence of negligence for the jury. Interestingly, most of the more recent cases which have considered whether practicing without a license was negligence per se have stated that it was not. 239 But an effectively per se result might be obtained under the widespread, perhaps majority,²⁴⁰ rule, that an unlicensed practitioner is held to the standard of care of a registered physician. 241 Since the ordinary malpractice standard encompasses having the skill of other physicians in the community,242 a charge to the jury in those terms as to a paramedical employee would seem to demand a finding of negligence on his part,243 which negligence would thereupon be imputed to his employer under ordinary respondent superior doctrines.244

^{239.} See McKay v. State Bd. of Medical Examiners, 103 Colo. 305, 86 P.2d 232 (1938); Andrews v. Lofton, 80 Ga. App. 723, 57 S.E.2d 338 (1950) ("... the mere failure to have a license... will not authorize an inference of negligence"); Grier v. Phillips, 230 N. C. 672, 55 S.E.2d 485 (1949) ("... the mere want of a license to practice dentistry does not raise any inference of negligence."); Forrest v. Eason, 123 Utah 610, 261 P.2d 178 (1953) ("Civil liability does not depend necessarily on lack of statutory licensing qualification ..."). But cf. Kapuschinsky v. United States, 248 F. Supp. 732 (D.S.C. 1966) (violation of hospital rule is negligence per se). For the early per se rule cases, see generally Annot., 57 A.L.R. 978 (1928).

^{240.} Brown v. Guy, 144 Cal. App. 2d 659, 666-67, 301 P.2d 413, 418 (1956).

^{241.} See Annot., 19 A.L.R.2d 1188, 1204-06 (1951), following report of Kelly v. Carroll, 36 Wash. 2d 482, 219 P.2d 79 (1950). See also Fulton Hosp. v. McDonald, 106 Ga. App. 783, 128 S.E.2d 539 (1962); Correll v. Goodfellow, 255 Iowa 1237, 125 N.W.2d 745 (1964); Dowell v. Mossberg, 226 Ore. 173, 355 P.2d 624 (1961); Grier v. Phillips, 230 N.C. 672, 55 S.E.2d 485 (1949); cf. Valentine v. Kaiser Foundation Hosps., 194 Cal. App. 2d 282, 15 Cal. Rptr. 26 (1961) (graduate student in ostetricsgynecology held to specialist's standard of care).

^{242.} See cases cited in Appendix A hereto.

^{243.} A registered nurse, on the other hand, has her own charge. She need only meet the standards of other nurses in the community, see Baur v. Mesta Machine Co., 405 Pa. 617, 176 A.2d 684 (1961); or perhaps just a general negligence (as opposed to malpractice) standard, see Gold v. Sinai Hosp., 5 Mich. App. 368, 146 N.W.2d 723 (1966).

^{244.} It might also be noted here that a physician is likely not even to have the benefit of the (usually quite short) malpractice statute of limitations in an action based on his non-professional employee's actions, for there seems to be some question whether

This then may be the largest single stumbling block in the way of the utilization of trained but unlicensed less-than-professional assistants to extend the scope and effectiveness of medical manpower. Certainly a doctor or hospital is and ought to be responsible for the negligence of their employees,245 and that itself might have some small tendency to lessen the use of employees, but if physicians are effectively to be made absolutely liable for every untoward result of an action carried out by an employee, the tendency to forego such services will become nearly irresistable. And this anti-innovative pressure is particularly effective in the area of delegation to assistants, much more so than in the analogous area of utilization of machines. In the latter case, there is always some danger that the doctor might be considered negligent in not using a particularly efficacious medical device which, it is arguable, can do the job better than he could do unaided. In those cases the Scyllic risk of going too far in mechanical aids is at least balanced to some extent by the Charybdis of "failure to keep up with the profession." But it would be an exceedingly rare medical procedure indeed of which it might be arguable that the doctor was guilty of malpractice for not delegating its performance to an unlicensed paramedical.246 Thus any innovative practitioner who contemplated delegating to anyone other than another doctor, or to a licensed member of some clearly accepted medical-adjunct subprofession, a procedure which might be deemed part of the "practice of medicine" would, on the basis of current law, be a brave man indeed, and perhaps a foolhardy one.

some of the malpractice statutes of limitations apply even to the acts of nurses. See Louisell & Williams ¶ 13.01, at 364 (1966 Cum. Supp., at 62). See also Wildey v. Kertzman, 44 Misc. 2d 258, 253 N.Y.S.2d 672 (Sup. Ct. 1964), appeal dismissed, 261 N.Y.S.2d 856 (App. Div. 1965) (statute does not apply); Richardson v. Doe, 176 Ohio St. 370, 199 N.E.2d 878 (1964) (statute does not apply); Davis v. Eubanks, 83 Ohio L. Abs. 28, 167 N.E.2d 386 (Ohio C.P. 1960) (statute does apply). And, as will be seen, there is some danger that the physician's malpractice insurance will not cover his liability for use of a paramedical aide. See text accompanying notes 265-72 infra.

245. And of course they are responsible for their own negligent hiring or delegation. E.g., White v. Prospect Heights Hosp., 278 App. Div. 789, 103 N.Y.S.2d 859 (1951) (medical orderly doing catheterization). See also Haliburton v. General Hosp. Soc'y, 133 Conn. 61, 48 A.2d 261 (1946), where hiring an unlicensed dentist was deemed to be negligence per se, but the plaintiff was still obligated to prove that the unlicensed employee had been negligent; Yorston v. Pennell, 397 Pa. 28, 153 A.2d 255 (1959), where it was deemed negligent for a surgeon to designate an uncertified hospital resident to do an operation, the effect of which was to make the surgeon responsible (apparently as a matter of agency law) for the preoperative negligence of an intern assisting the resident.

246. But see Natanson v. Kline, 186 Kan. 393, 350 P.2d 1093 (1960), where the physician delegated radioactive cobalt calculations to a physicist, indicating at the trial that he could not even understand the latter's calculations.

D. Conclusion

It should not be concluded from the foregoing pages that doctors ought to be wholly free to use paramedicals whenever they feel like it. One could hardly contend for a system which allowed a doctor, without any restriction, to render his practice more efficient (and perhaps more lucrative) by the utilization of numerous less qualified and less costly employees. There are obvious limits to arguments for efficiency, and they are speedily reached in the medical field, especially since that sort of "efficiency" gives a doctor a gross competitive advantage over his brethren. Nonetheless it would seem that if the present legal system erects an almost impassable barrier to the use of paramedicals despite any probability of gains in efficiency without loss of quality, it is the present legal system that needs adjustment.²⁴⁷

IV. MALPRACTICE INSURANCE

Implicit (and sometimes explicit) in much of the legal response to the problem of allocating responsibility for medically connected damages, is the belief that the ultimate bearer of any obligation placed upon a doctor or hospital will be an insurance carrier.²⁴⁸ And indeed, surveys seem to indicate that most doctors do carry malpractice insurance,²⁴⁹ though arguably not enough do, and those that do do not carry enough.²⁶⁰ Assuming, however, that the relevant legal rules are affected by this presumed insurance coverage, it is of cardinal interest whether or not the new medical technologies discussed in this paper are in fact covered by current insurance policies.

While doctors (and hospitals, often even if they are still protected by charitable and governmental immunity doctrines)²⁵¹ carry all sorts of insurance which are not especially germaine to their professional liability,²⁵² they also generally carry an insurance policy specifically protecting them against malpractice exposure. The key provision of the usual malpractice policy provides as follows:

^{247.} See "General Conclusion and Recommendations" infra.

^{248.} See Louisell & Williams ¶ 20.02.

^{249.} See the report of the 1963 Professional Liability Survey carried out by the A.M.A. in 189 J.A.M.A. 859, 862 (1964) (almost 95 percent carry some malpractice insurance).

^{250.} Id. at 862-64. See also Rosner v. Peninsula Hosp. Dist., 224 Cal. App. 2d 115, 36 Cal. Rptr. 332 (1964) involving an unsuccessful attempt by a hospital to make adequate malpractice coverage a pre-condition for admission to staff privileges.

^{251.} See note 181 supra.

^{252.} See notes 256-60 infra.

The Company agrees... to pay on behalf of the insured all sums which the insured shall become legally obligated to pay as damages because of injury arising out of malpractice, error or mistake in rendering or failing to render professional services in the practice of the insured's profession... committed... by the insured or by any person for whose acts or omissions the insured is legally responsible....²⁵³

On first reading, such a provision would seem broad enough to cover the the liability of a doctor arising out of malfunction of his equipment and the errors of his employees. Matters, however, are not quite that simple.

A. Coverage of Medical Devices

With respect to the equipment used in connection with medical treatments, no case has been found in which a doctor sued his insurer for reimbursement which has held squarely that an injury caused by the malfunction of medical machinery, for which the doctor was held liable, was not covered by the doctor's malpractice insurance policy. In fact, only one case has been discovered in which the insurance company even claimed that such a liability was not covered by its policy. In that case²⁵⁴ a chiropodist had been held liable for injuries suffered by one of his patients when she fell while attempting to sit down in the chiropodist's hydraulic treatment chair. When the chiropodist sued his insurer for reimbursement, the court treated the case as involving a failure "in maintaining equipment in . . . safe condition"255 and found in favor of the claimant. But it should be noted that in that case the alleged error was the chiropodist's failure to lock the chair securely before the patient attempted to sit on it, and thus there was a large proportion of personal negligence in the case.

In addition, in several cases involving claims under some form of policy other than malpractice, there is dicta indicating that mechanical failure of medical devices would be considered risks covered by the typical malpractice policy. In one case,²⁵⁶ which involved a "comprehensive" policy insuring a chiropractor, which policy contained a clause excluding malpractice

^{253.} See Coverage and Exclusions of Professional Liability Insurance, 170 J.A.M.A. 813, 814 (1959).

^{254.} American Policyholders Ins. Co. v. Michota, 156 Ohio St. 578, 103 N.E.2d 817 (1952); cf. Burns v. American Cas. Co., 127 Cal. App. 2d 198, 273 P.2d 605 (1954), where the *Michota* case was cited to justify the purchase by a hospital with governmental malpractice immunity (but not against claims arising out of defective equipment) of malpractice insurance.

^{255. 156} Ohio St. 578, 582, 103 N.E.2d 817, 819 (1952).

^{256.} Antles v. Aetna Cas. & Sur. Co., 221 Cal. App. 2d 438, 34 Cal. Rptr. 508 (1963).

liability, it was held that an injury caused when the bracket holding a heat lamp being used in treatment broke was within the malpractice exclusion. In a similar case,²⁵⁷ when a patient fell off a treatment table with a faulty catch, the injury was again held to be within the governing policy's malpractice exclusion. In still another case,²⁵⁸ the court held that it could not be decided on summary judgment whether the failure to put up side-rails on a bed did or did not come within a malpractice exclusion in a hospital's comprehensive policy, and remanded the case for trial.

On the other hand, one case²⁵⁹ does hold that a failure to put up bed rails would not be within the malpractice exclusion in a hospital's comprehensive policy, and another²⁶⁰ seems to hold that excessive use of an X-ray machine is within the coverage of a general (i.e., not malpractice) accident policy.

Despite these last two weak indications to the contrary (one is hardly certain that coverage would not also have been found in those cases had a malpractice policy been in issue), it seems likely that if a physician is held liable for injuries inflicted on a patient through failure of equipment reasonably closely connected with his rendition of professional services, his malpractice insurer will be held obligated to repay the doctor's loss. It should be noted, however, that in most of the cases so far decided the fault was not solely a mechanical breakdown, but included some strong flavor of actual negligence by the physician. That should not on principle lead to a different result; negligent failure to inspect should be no different from negligent use. But it ought to be pointed out that if the liability of the doctor is in the future based on some strict-liability theory, 261 or on breach of warranty,262 a distinguishable fact situation would be presented to the courts. Especially if the patient's theory had been breach of warranty, there might be some temptation for the courts to invoke the line of cases freeing malpractice insurers from liability for breaches

^{257.} Harris v. Fireman's Fund Indem. Co., 42 Wash. 2d 655, 257 P.2d 221 (1953); cf. Knorr v. Commercial Cas. Ins. Co., 171 Pa. Super. 488, 90 A.2d 387 (1952), where a falling hairdryer was held not covered by a beauty shop owner's comprehensive policy because of a clause excluding injuries arising out of "the rendering of . . . professional services. . . ."

^{258.} Demandre v. Liberty Mut. Ins. Co., 264 F.2d 70 (5th Cir. 1959).

^{259.} D'Antoni v. Sara Mayo Hosp., 144 So. 2d 643 (La. Ct. App. 1962).

^{260.} Shaw v. United States Fidelity & Guar. Co., 101 F.2d 92 (3d Cir. 1938). It is hard to tell from the report of this case either what the policy provided or what the insureds did.

^{261.} See "Strict Liability" supra.

^{262.} See "Breach of Warranty" supra.

of express "warranties" of cure.²⁶³ "After all," the argument might persuasively but wrongly go, "we insured against tort liability, not contract liability." Any rate, since the strict liability and warranty theories would in fact increase the insurer's underwriting risk if adpoted in the medical-device area, thereby increasing the companies' restiveness at liability,²⁶⁴ it would likely be wisest to redraft malpractice policies to cover more explicitly breakdowns in medical machinery, and also to draw a definition of "medical" devices wide enough to encompass emerging technologies like computer-connected devices.

B. Coverage of Paramedicals

As for the errors of assistants, the general coverage provision quoted above specifically includes such liability. Malpractice policies, however, also generally carry a provision excluding "injury arising out of the performance of an illegal act." Under such a provision it might well be held that delegation to an unlicensed paramedical was an "illegal act" and thus excluded from the coverage of the policy. And in at least three cases such holdings were made, one involving an optometrist who exceeded his licensed sphere by undertaking to perform a minor eye operation, and two others involving arguably medical procedures carried out by unlicensed assistants of the insured. Assuming these cases would be followed today, and there is no strong reason to doubt it, the use of a paramedical would carry with it not only the risk of civil liability without anyone's negligence, but the further risk that the doctor's liability would go uncompensated even if he had taken the precaution of procuring malpractice insurance. Of course, if what the assistant does is not "the prac-

^{263.} The leading case is most likely McGee v. United States Fidelity & Guar. Co., 53 F.2d 953 (1st Cir. 1931), where the physician was held not covered by his malpractice insurance policy when he lost the case against the patient (Hawkins v. McGee, 84 N.H. 114, 146 A. 641 (1929)) on a theory of "breach of warranty of cure," i.e., a breach-of-contract theory. Cf. Aker v. Sabatier, 200 So. 2d 94 (La. Ct. App. 1967) refusing to rule as a matter of law that libel and slander was not covered by a professional liability policy.

^{264.} At present, even when faced with close hypothetical coverage questions, the companies seem to be willing to interpret their obligations generously. See Hirsh, Insuring Against Medical Professional Liability, 12 VAND. L. REV. 667, 680-93 (1959).

^{265.} See Louisell & Williams ¶ 20.04; Hirsh, supra note 264, at 669.

^{266.} Kime v. Aetna Cas. & Sur. Co., 66 Ohio App. 277, 33 N.E.2d 1008 (1940).

^{267.} Glesby v. Hartford Acc. & Indem. Co., 6 Cal. App. 2d 89, 44 P.2d 365 (1935); Betts v. Massachusetts Bonding & Ins. Co., 90 N.J.L. 632, 101 A. 257 (1917). See also Seay v. Georgia Life Ins. Co., 132 Tenn. 673, 179 S.W. 312 (1915), where the negligent assistants were licensed but, the policy requiring that they be "acting under the insured's instructions," the insurer was held not liable when they were acting without the insured's direct and close supervision in the particular case.

tice of medicine" the act is not illegal.268 But, as noted above,260 that determination is one that presently demands some dangerous guessing. Here too then, some malpractice policy redaction seems in order. The question of whether the typical malpractice policy ought to cover the insured physician's liability for the acts of his unlicensed aides ought at least be specifically faced in the drafting of the policies rather than permitting it to be decided by interpretation of "illegal act" clauses primarily directed at abortion-like acts. It would seem best to cover the acts of aides as a matter of course, the insurer relying for its protection against physicians who set up paramedical factories upon the disclosures required on their application forms. If indeed the insurers believe that coverage of non-physicianassistants' acts materially increases their underwriting risk, this coverage might be supplied by an added-cost rider, many of which presently exist to cover other special risks.²⁷⁰ The point is that many uses of paramedicals are proper and helpful, but that the present legal distinctions between proper and improper use are exceedingly close. The risk of transgressing that exceedingly fine line is, it would seem, just the kind of risk which is properly shiftable to a professional insurer, and hardly one which, given the other penalties for serious transgression, is likely unduly to encourage anti-social activity. The operator of an abortion mill, or even of a practice which employs laymen to increase profits,271 is not likely to be deterred by questions about his malpractice coverage, but one who wishes to use a highly trained tonometer operator may well be. The danger seems one the severity of which is equalled only by its unpredictability, a pretty good general definition of a properly insurable risk.²⁷²

^{268.} See Maryland Cas. Co. v. Crazy Water Co., 160 S.W.2d 102 (Tex. Civ. App. 1942). That case involved the question of whether the acts of a "tubber" in a bath house, whose job was to draw baths of the correct temperature (sometimes following a physician's prescription), was within an exclusion in a public liability policy of "... claims due to the rendition of any professional services ..." The court held that the tubber was not a professional, moved strongly to this conclusion by the fact that the tubber's wages were \$1.60 per day. But cf. Mason v. Liberty Mut. Ins. Co., 370 F.2d 925 (5th Cir. 1967) where a student nurse's injection was within the exclusion for acts "of professional nature" in a hospital's general liability policy.

^{269.} See "Application to Paramedicals" supra.

^{270.} See Hirsh, supra note 264, at 668, on the necessity of paying an extra premium to cover the malpractice of partners.

^{271.} See cases cited note 226 supra.

^{272.} It should also be noted that the employee of the physician is ordinarily not covered for his own malpractice liability by the terms of his employer's policy, see Legler v. Meriwether, 391 S.W.2d 599 (Mo. Ct. App. 1965); nor are physicians to whom other physicians send their patients, see O'Neil v. Glens Falls Indem. Co., 310 F.2d 165 (8th Cir. 1962). In light of the additional premium costs of a multiplicity of policies, see Ehrenzweig, Compulsory "Hospital Accident" Insurance: A Needed

GENERAL CONCLUSIONS AND RECOMMENDATIONS

The preceding discussion illustrates that the complexities involved in Mrs. K.'s hypothetical lawsuit²⁷³ become even greater after a review of the relevant law than before. Even with reference to the specific foci of this study—the effect of malpractice law as currently constituted upon the use of sophisticated medical devices and paramedical personnel—the unresolved problems exceed the resolved ones, and that does not even take into account the rightness or wrongness of the resolutions heretofore achieved. One can say that on the basis of current law, a physician is responsible for his own negligence, the negligence of his servants and, under special circumstances, the negligence of certain others with whom he is closely associated in certain procedures, without reference to their actual employment status.274 Also he is quite likely to be liable for the harmful or even unhelpful acts of paramedicals, whether employed or not, perhaps without reference to his or their due care.275 As for medical devices, under current law the owner and user thereof is responsible for negligence in choice, maintenance and use, but not for mere malfunction.²⁷⁶ But to say all that is to hide most of the difficult problems, not to answer them. The legal status of paramedicals and medical devices is in a not surprising state of flux, and the resulting uncertainty itself may hinder the development and use of some valuable new medical techniques.

The greatest danger in the use of paramedicals lies in their unlicensed status. It is this which makes it possible to regard their utilization under the rubric "practicing medicine without a license" with the resultant actual or spurious absolute liability concommitant of that characterization.²⁷⁷ A possible solution would be to license them, setting forth with reasonable certainty just what it is they are to be permitted to do, as usual conjoining that permission with requisite standards of training and qualification. This would not only remove the additional malpractice jeopardy, but might help to raise the quality of paramedicals. It might, however, have the effect instead of fragmenting and rigidifying categories of medical manpower, subjecting physicians and hospitals to administrative and civil jeopardy

First Step Toward the Displacement of Liability for "Medical Malpractice," 31 U. Chi. L. Rev. 279, 283-84 (1964), it might be wise to put at least full-time employees on their employers' policies, as a matter of course or at least by standard rider.

^{273. &}quot;Introduction" supra.

^{274.} See text accompanying notes 181-204 supra.

^{275.} See text accompanying notes 237-44 supra. The same is more or less true of hospital liability with the variations discussed above.

^{276.} See "Malpractice Aspects of the Use of Advanced Medical Devices" supra.

^{277.} See text accompanying notes 237-44 supra.

for any attempt to use paramedical personnel with any cross-category flexibility.

Whether paramedicals are eventually licensed or not, it would seem that courts considering their actions should resist the temptation to consider the question one of "unauthorized practice" (with its subjoined perse-negligence aspects), and think rather in terms of whether the specific utilization met the ordinary standard of care required of physicians. After all, most of the cases would be easy ones. A doctor who allowed high school graduate to diagnose or prescribe or perform surgery would ordinarily be found negligent without any need for a per se instruction.278 Since there is already left to the discretion of doctors decisions as to whether or not to administer powerful and dangerous drugs, to open a major bodily cavity, to envelop one in destructive radiation, it would hardly be much of a wrench to rely upon their honest skill and judgment as to the safety of allowing a paramedical to take a "pap" smear or run a tonometer. This decision would remain subject, of course, like all other medical decisions, to a later jury determination whether it was justifiable under the normal malpractice standard. And if the paramedical were negligent in fact, the physician or hospital, as his employer, would remain liable for the injuries inflicted. In other words, the public is relatively well protected against paramedical mills without any per se negligence theories.

As for allocating the responsibility for the breakdown of medical devices, whatever is eventually decided, the decision ought to be made with cognizance of the specific medical context involved. At present, neither physicians nor hospitals seem to be liable for mechanical failure without evidence of negligence. The doctrines of breach of warranty and absolute liability are both inapplicable because of the requirement of a "sale." Even if that ought to change, the change ought not be allowed to come about, unbidden and unexamined, merely as the byproduct of a redefinition of "sale" made in some other context. If the "sale" requirement is the only thing which stands between a physician and absolute liability for mechanical failure now, that does not necessarily mean that that is the only thing that ought to stand between. Here as elsewhere in the law, facing problems does not solve them, but unless one has an almost mystical belief in judicial serendipity, one must concede that facing them at least increases one's chances of solving them.

^{278.} See Delaney v. Rosenthal, 347 Mass. 143, 196 N.E.2d 878 (1964). See also Hassard, Practice of Medicine: Delegation of Duties, 89 CALIF. Med. 158 (1958).

APPENDIX A

RECENT JUDICIAL FORMULATIONS OF THE MALPRACTICE STANDARD

- ALABAMA Hatcher v. Camp, 279 Ala. 475, 187 So. 2d 232 (1966) (under like circumstances); Cooper v. Providence Hosp., 272 Ala. 283, 130 So. 2d 8 (1961) (hospitals generally in the community); Mobile Infirmary v. Eberlein, 270 Ala. 360, 119 So. 2d 8 (1960) (hospitals generally in the community); Watterson v. Conwell, 258 Ala. 180, 61 So. 2d 690 (1952) (same general neighborhood).
- ARIZONA Stallcup v. Coscarart, 79 Ariz. 42, 282 P.2d 791 (1955) (in that community).

 ARKANSAS Walls v. Boyett, 216 Ark. 541, 226 S.W.2d 552 (1950) (same general neighborhood or similar localities).
- CALIFORNIA McCurdy v. Hatfield, 30 Cal. 2d 492, 183 P.2d 269 (1947) (same locality); Inouye v. Black, 238 Cal. App. 2d 31, 47 Cal. Rptr. 313 (1965) (in the locality); Evans v. Sarrail, 208 Cal. App. 2d 478, 25 Cal. Rptr. 424 (1962) (same locality).
- Connecticut Decho v. Shutkin, 144 Conn. 102, 127 A.2d 618 (1957) (same general neighborhood); Snyder v. Pantaleo, 143 Conn. 290, 122 A.2d 21 (1956) (same general neighborhood); Marchlewski v. Casella, 141 Conn. 377, 106 A.2d 466 (1954) (same general neighborhood).
- Delaware DiFilippo v. Preston, 53 Del. 539, 173 A.2d 333 (1961) (same or similar community); Hornbeck v. Homeopathic Hosp. Ass'n, 197 A.2d 461 (Super. Ct. 1964) (this or similar community).
- DISTRICT OF COLUMBIA Brown v. Keaveny, 326 F.2d 660 (D.C. Cir. 1963) (own or similar locality); Garfield Memorial Hosp. v. Marshall, 204 F.2d 721 (D.C. Cir. 1953) (hospitals generally in the community); Stottlemire v. Cawood, 213 F.Supp. 897 (D.C. 1963) (his own or similar locality).
- FLORIDA Olschefsky v. Fischer, 123 So. 2d 751 (Fla. Dist. Ct. App. 1960) (in the community); Brown v. Swindale, 121 So. 2d 38 (Fla. Dist. Ct. App. 1960) (in the community).
- GEORGIA Murphy v. Little, 112 Ga. App. 517, 145 S.E.2d 760 (1965) (ordinarily employed by the profession generally and not in the locality).
- IDAHO Kingston v. McGrath, 232 F.2d 495 (9th Cir. 1956) (same or like locality).
- ILLINOIS Darling v. Charleston Community Memorial Hosp., 33 Ill. 2d 326, 211 N.E. 2d 253 (1965), cert. denied, 383 U.S. 946 (1966) (no error in failing to charge "customary standards of the community"); Mann v. Sanders, 29 Ill. App. 2d 291, 173 N.E.2d 12 (1961) (in the locality).
- Indiana Worster v. Caylor, 231 Ind. 625, 110 N.E.2d 337 (1953) (in similar localities generally).
- Iowa Baker v. United States, 343 F.2d 222 (8th Cir. 1965) (hospitals generally in the community); Barnes v. Bovenmyer, 255 Iowa 220, 122 N.W.2d 312 (1963) (in like localities); Lagerpusch v. Lindley, 253 Iowa 1033, 115 N.W.2d 207 (1962) (in like localities).
- Kansas Yeates v. Harms, 193 Kan. 320, 393 P.2d 982 (1964) (not only in the community but in similar communities); Natanson v. Kline, 186 Kan. 393, 350 P.2d 1093 (1960) (in his community); Goheen v. Graber, 181 Kan. 107, 309 P.2d 636 (1957) (community or similar communities); Harris v. Exon, 161 Kan. 582, 170 P.2d 827 (1946), opinion adhered to, 162 Kan. 270, 176 P.2d 260 (1946) (in the community).
- KENTUCKY Jones v. Furnell, 406 S.W.2d 154 (Ky. 1966) (no area description); Johnson v. Vaughn, 370 S.W.2d 591 (Ky. 1963) (same or like locality).
- LOUISIANA Hayward v. Echols, 362 F.2d 791 (5th Cir. 1966) (in the community); Frederic v. United States, 246 F.Supp. 368 (E.D. La. 1965) (same community or locality); Prack v. United States Fidelity & Guar. Co., 187 So. 2d 170 (La. Ct. App),

- cert. denied, 249 La. 483, 187 So. 2d 450 (1966) (same locality or community); Meyer v. St. Paul-Mercury Indem. Co., 225 La. 618, 73 So. 2d 781 (1953) (in same community or locality).
- MAINE Josselyn v. Dearborn, 143 Me. 328, 62 A.2d 174 (1948) (under like conditions).
- MARYLAND State ex rel. Solomon v. Fishel, 228 Md. 189, 179 A.2d 349 (1962) (in the community); Lane v. Calvert, 215 Md. 457, 138 A.2d 902 (1958) (in the profession generally).
- Massachusetts Delaney v. Rosenthall, 347 Mass. 143, 196 N.E.2d 878 (1964) (in the community); Haggerty v. McCarthy, 344 Mass. 136, 181 N.E.2d 562 (1962) (in the community); Ramsland v. Shaw, 341 Mass. 56, 166 N.E.2d 894 (1960) (in the locality).
- MICHIGAN Brandon v. Art Centre Hosp., 366 F.2d 369 (6th Cir. 1966) (same or similar locality); Skeffington v. Bradley, 366 Mich. 552, 115 N.W.2d 303 (1962) (that or similar communities); Bryant v. Biggs, 331 Mich. 64, 49 N.W.2d 63 (1951) (same locality or similar localities); Bradshaw v. Blaine, 1 Mich. App. 50, 134 N.W.2d 386 (1965) (same or similar localities).
- Minnesota Thompson v. Lillehei, 164 F. Supp. 716 (D. Minn. 1958), aff'd, 273 F.2d 376 (8th Cir. 1959) (in that locality); Hoffman v. Naslund, 274 Minn. 521, 144 N.W.2d 580 (1966) (in his locality); Schulz v. Feigal, 273 Minn. 470, 142 N.W.2d 84 (1966) (in his locality).
- MISSISSIPPI Newport v. Hyde, 244 Miss. 870, 147 So. 2d 113 (1962) (in the locality); Copeland v. Robertson, 236 Miss. 95, 112 So. 2d 236 (1959) (in the neighborhood).
- MISSOURI Fisher v. Wilkinson, 382 S.W.2d 627 (Mo. 1964) (no area stated); Rauschelbach v. Benincasa, 372 S.W.2d 120 (Mo. 1963) (in the community).
- MONTANA Donathan v. McConnell, 121 Mont. 230, 193 P.2d 819 (1948) (in the community).
- Nevada Foreman v. Ver Brugghen, 81 Nev. 86, 398 P.2d 993 (1965) (in the locality); Lockhart v. Maclean, 77 Nev. 210, 361 P.2d 670 (1961) (the same locality).
- New Hampshire Carrigan v. Roman Catholic Bishop, 104 N.H. 73, 178 A.2d 502 (1962) (same or similar locality).
- New Jersey Schueler v. Strelinger, 43 N.J. 330, 204 A.2d 577 (1964) (no area stated).
- New Mexico Cervantes v. Forbis, 73 N.M. 445, 389 P.2d 210 (1964) (in the community).
- NEW YORK Mickles v. State, 43 Misc. 2d 953, 252 N.Y.S.2d 629 (Ct. Cl. 1964) (the same locality); Judd v. Park Avenue Hosp., 37 Misc. 2d 614, 235 N.Y.S.2d 843 (Sup. Ct.), aff'd 18 App. Div. 2d 766, 235 N.Y.S.2d 1023 (1962) (hospitals generally in the community); Battistella v. Society of the N.Y. Hosp., 9 App. Div. 2d 75, 191 N.Y.S.2d 626 (1959) (in locality).
- NORTH CAROLINA Belk v. Schweizer, 268 N.C. 50, 149 S.E.2d 565 (1966) (similarly situated); Bryant v. Dougherty, 267 N.C. 545, 148 S.E.2d 548 (1966) (similarly situated).
- NORTH DAKOTA Benzmiller v. Swanson, 117 N.W.2d 281 (N.D. 1962) (similar localities).
- Ohio Oberlin v. Friedman, 5 Ohio St. 2d 1, 213 N.E.2d 168 (1965) (his or similar community); Richardson v. Doe, 176 Ohio St. 370, 199 N.E.2d 878 (1964) (same or similar localities).
- OKLAHOMA Pearce v. United States, 236 F. Supp. 431 (W.D. Okla. 1964) (in the community); Eckels v. Traverse, 362 P.2d 680 (Okla. 1961) (in the general community).

- OREGON Eckleberry v. Kaiser Found. N. Hosps., 226 Ore. 616, 359 P.2d 1090 (1961) (in like communities); Dowell v. Mossberg, 226 Ore. 173, 355 P.2d 624 (1960) (in the same community).
- Pennsylvania McHugh v. Audet, 72 F. Supp. 394 (M.D. Pa. 1947) (same general neighborhood); Smith v. Yohe, 412 Pa. 94, 194 A.2d 167 (1963) (same or similar locality).
- SOUTH CAROLINA Bessinger v. De Loach, 230 S.C. 34, 94 S.E.2d 3 (1956) (same general neighborhood or similar localities).
- TENNESSEE Thompson v. Methodist Hosp., 211 Tenn. 650, 367 S.W.2d 134 (1962) (generally in the community); Gresham v. Ford, 192 Tenn. 310, 241 S.W.2d 408 (1951) (in the community); Methodist Hosp. v. Ball, 50 Tenn. App. 460, 362 S.W.2d 475 (1961) (same or similar communities); Redwood v. Raskind, 49 Tenn. App. 69, 350 S.W.2d 414 (1961) (no area stated).
- Texas Bowles v. Bourdon, 148 Tex. 1, 219 S.W.2d 779 (1949) (no area stated); Levermann v. Cartall, 393 S.W.2d 931 (Tex. Civ. App. 1965) (same general vicinity).
- UTAH Riley v. Layton, 329 F.2d 53 (10th Cir. 1964) (in the community); Marsh v. Pemberton, 10 Utah 2d 40, 347 P.2d 1108 (1959) (in the vicinity).
- VIRGINIA White v. United States, 244 F. Supp. 127 (E.D. Va. 1965) (in locality); Hall v. Ferry, 235 F. Supp. 821 (E.D. Va. 1964) (his community).
- Washington Stafford v. Hunter, 66 Wash. 2d 269, 401 P.2d 986 (1965) (in his locality or similar communities); Kaiser v. Suburban Transp. Sys., 65 Wash. 2d 461, 398 P.2d 14 (1965) (in locality); Teig v. St. John's Hosp., 63 Wash. 2d 369, 387 P.2d 527 (1963) (same or similar locality); Derr v. Bonney, 38 Wash. 2d 678, 231 P.2d 637 (1951) (in locality).
- WEST VIRGINIA Schroeder v. Adkins, 149 W. Va. 400, 141 S.E.2d 352 (1965) (in similar localities); White v. Moore, 134 W. Va. 806, 62 S.E.2d 122 (1950) (in similar localities).
- Wisconsin Peterson v. Carter, 182 F. Supp. 393 (W.D. Wis. 1960) (in the vicinity or locality); McManus v. Donlin, 23 Wis. 2d 289, 127 N.W.2d 22 (1964) (same or similar localities).