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Book Review (reviewing Edwin Blythe Stason et al., Atoms and the Law (1959))

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RECENT BOOKS

ATOMS AND THE LAW. By *E. Blythe Stason, Samuel D. Estep* and *William J. Pierce.* [Parts I and II* Pp. 1-846] Ann Arbor: The University of Michigan Law School, 1959. Pp. xxvii, 1512. $15.00.

In this monumental volume Dean Stason and his colleagues at The University of Michigan Law School, Professors Estep and Pierce, have carried to completion a task of enormous scope. They have done nothing less than survey in detail *all* of the legal problems that will be raised by the peacetime exploitation of atomic energy. To do so they have had to look into the future and to risk prophecy of the shape and scope of the problems which are yet to come; their performance must constitute the most steadfast, thorough, and fully-documented gazing into the crystal ball in history. The magnitude of their achievement is such as to defy the limitations of a book review; and this is true although this review will be concerned only with Parts I and II, which deal with tort issues and which occupy the first 846 of the book's 1512 pages.[1] I shall therefore at the outset abandon all hope of doing justice to the richness of the book's materials; rather I shall confine discussion to a series of general points which the nature of the task and the authors' treatment of it suggest.

The basic task — the holding up of contemporary tort law to the mirror of this awesome new source[2] of accidents — strikes me as profoundly exciting and worthwhile. It provides a historic occasion for reconsideration of the wisdom and completeness of the law, a chance for a grand overview of what it is that tort law does and for a large criticism of it as it interacts with the pressing new problems generated by the use of atomic energy. It is almost as though we were placed once again at the threshold of the Industrial Revolution and invited to consider the problems with which our society and our law would soon be confronted. Reading the book is thus an extraordinary experience and privilege for the torts teacher.

The book is not easy to appraise as a work of scholarship. Necessarily much of the scholarship is derivative in the sense of collating an existing body of law with a new set of problems. Tort law had needed in recent years the monograph on the specific problem such as Dickerson's book on products liability in the food industry.[3] It might be thought that *Atoms and the Law* is the parallel monograph on the specific problem of atomic energy.

* Parts III, IV and V were reviewed by David F. Cavers in 58 MICH. L. REV. at p. 949, April 1960.—Ed.

1 The book has five major parts. The other three deal with "State Regulation of Atomic Energy," "Federal Regulatory and Administrative Limitations Upon Atomic Activities" and "International Control of Atomic Energy." See Cavers, Book Review, 58 MICH. L. REV. 949 (1960).

2 As we subsequently note in the text, there is some doubt, in view of the excellent safety record thus far, as to just how "awesome" these possibilities are.

3 DICKERSON, PRODUCTS LIABILITY AND THE FOOD CONSUMER (1951).

However, the uses of atomic energy are so varied and its probable versatility in causing harm is so great that a study of this specific problem is tantamount to a study of virtually all tort problems. Further, at several points the authors have done original legal research in considerable depth. Hence almost as a by-product of their basic purpose they have produced another general torts text which has claim to a place on the shelf alongside the *Restatement,* Prosser, and Harper and James.

Beyond this is the remarkable factual imagination the authors have displayed in locating the new problems. On this level the book is stunning indeed. They have been inexhaustibly thorough in imagining what kinds of problems will arise and in so doing they have furnished us with a major example of the kind of seasoned experienced judgment the lawyer can provide in planning ahead for the future. Hence, although the book is uneven, much of it rates as original scholarship.

Thus the task is exciting, the imagination is high, and the scholarship is deep. But despite these clear virtues the work is full of difficulties which invite criticism. In the uncharitable tradition of book reviewing, I will devote most of the space to the difficulties.

The very virtue of detailed and patient foresight proves to be a source of serious difficulty throughout for the allocation of discussion. There are two related problems here. First, whether the fact that the new source of accident is atomic energy will add any novelty to the legal issues; for example in a serious radiation accident many people will be killed but this would hardly justify a detailed study of death statutes since however the person is killed the legal issues raised by a claim for wrongful death remain the same. The authors seem to have followed an uneven editorial policy with respect to this dilemma. Thus the chapter on workman's compensation is a concise summary of the familiar law and devotes most of its space to the new issues that will arise from radiation accidents. But often they seem to be rehashing much law which picks up no novelty from its application to the atomic energy accident. An interesting instance of this is the handling of prenatal injuries to which some fifty pages are devoted. It is true that their legal analysis is very good and that radiation carries a new potential for causing prenatal harm, and further that prenatal tort law has developed only very recently, yet their lengthy discussion of the application of tort law to prenatal injuries caused by radiation does not read very differently from any of the several recent law review commentaries which have thoroughly reviewed the topic without the stimulus of the atomic energy accident. In contrast the novel issues of genetic injury from radiation receive little emphasis, although the authors do remind us that the law may someday have to resolve the puzzling issue of injury to a child who is not merely unborn but unconceived at the date of the wrong.

The other wing of this difficulty is that they sometimes are running so far ahead of events that the new case has no shape or feel as yet. Conse-

quently the application of existing law to the new case is not so much an application as a repetition of law. It is a little as though in anticipating the legal problems that will arise when man reaches the moon, a book on lunar law were to discuss at length the choice between the Torrens system and the recording acts on the supposition that property rights on the moon will be created. The book is thus an excellent playground for exercises on the arresting jurisprudential issue of when an application of a general legal principle to a case serves to illumine the principle and when it serves merely to repeat the principle. It is tempting to say that the book is an instance of too much and too soon.

A second pervasive difficulty stems from some uncertainty as to the audience for whom the book was written. Presumably the authors did not intend to write another torts text as their main objective. Nor did they apparently intend a critical essay on the policy issues involved, although the book is again uneven in its explicit criticism of existing law. They seem to have decided upon a book for the practising lawyer, a book the lawyer must have on his desk while he waits for the first nuclear accident to occur. The text is full of references to the "nuclear lawyer" and "the lawyer in the atomic age." This seems to me an instance of what might be called the "practical fallacy." With such a topic, the authors should have had the courage of their imagination, and not have attempted to make their book palatable to the presumably hard-headed bar by the pretense that it was actually written for them.

The desire to appear to be practical while engaged in pioneering legal study led the authors into what may well prove the most upsetting feature of their endeavor. They have approached their problem by a careful examination of the common law tort doctrine. It is a serious weakness that they do not face up early to the question whether the new problems are to be solved primarily by the judge or by the legislature. It is one thing to look to the common law doctrine for advice on legislation; it is quite another however literally to apply it inch by inch as the authors have done. Thus at page 685 they seem to me to give the game away in the following sentence: "In view of this complicated and uncertain state of affairs of one thing we may be certain, namely, that before we move very many years into the atomic age, state legislatures will be taking action to provide statutory rules covering the matter of liability in radiation injuries. . . ." I do not mean to suggest that the first 685 pages of patient discussion are rendered worthless by this prediction of legislation. I do mean to suggest, however, that the likelihood of legislation plays havoc with their organization and with their basic approach. Although at many points they have made specific recommendations for changes in the law, they have been inhibited throughout by the effort to extend the common law to the atomic accident and have not freely assessed the alternatives a legislature would have. Had they faced up at the outset to the probability of legislation they could not of course have written a book for the bar since it would be

hazardous indeed to attempt to predict what statutes the future will bring and to then attempt to apply them.

It is perhaps these same factors that have led to the most striking feature of the book — the authors' preoccupation with negligence as the criterion of liability in the atomic age. One would have thought that the advent of the atomic accident would have provided a splendid occasion for redebating the wisdom of *Brown v. Kendall.* Or at least that it would have furnished a fine case for analysing the impact of common law strict liability notions, particularly those for ultrahazardous activity under section 519 of the *Restatement.* It has always been a puzzle how section 519 could share the tort world peaceably with the negligence principle; and atomic energy would have seemed a superb test case. The book, however, plods through the negligence rules first and really never debates seriously what the proper criterion of liability should be.[4] It is true that on page 635 the authors finally discuss strict liability and good old *Rylands v. Fletcher,* but their heart does not seem to be in it. Their treatment is the more curious because at this point they pause for a useful review of the history of all the atomic accidents that have thus far occurred and add some good hypothetical cases of their own. They then attempt to decide whether negligence or strict liability will control. By my count they put 23 cases in all; in 14 they conclude it will be strict liability; in 6 they say that "available case law is not clear" and in 3 they lean toward negligence. Yet this box score seems to have had little impact on the emphasis throughout the rest of the book.

The history of atomic accidents suggests one other fascinating possibility. The remarkable thing is that there have been so few accidents of any sort. We are told that the AEC has operated 25 reactors for over 600,000 hours using almost 18,000,000 man hours without accident. Clearly the crude popular impression that tort law will have to face disasters comparable to Hiroshima is happily wide of the mark. In fact it is doubtful that on the current safety record the use of atomic energy would qualify as ultrahazardous under section 519! One is tempted to go on and suggest, with tongue in cheek, that perhaps atomic energy will not produce any tort problems and that the authors have been engaged in documenting with exquisite care the legal consequences of a private nightmare.

As subchapter C of the long third chapter on Negligence the authors report in detail on the government insurance indemnity program for atomic energy. Apparently the threat of tort liability has been considered so great and so far in excess of private insurance funds that the government has had to step in and underwrite $500,000,000 of liability insurance for each industrial user of atomic energy over and beyond his private coverage. We have here an instructive instance of the deterrent impact tort liability may have on industry. Thus there may be something after all to the fashionable interpretation of *Brown v. Kendall* as a subsidy to infant New England

[4] There is, however, some discussion of the issue in Chapter IV, especially p. 721 et seq.

industry. This time, however, the subsidy is not buried in the negligence limitation but is perfectly visible in the government insurance program which presumably rests in the end on general tax revenues.

But what seems extraordinary to me is that this dramatic use of government insurance has so little impact on the authors' discussion of liability criteria. It is true that the Anderson amendment to the Atomic Energy Act carefully refrained from tampering with state substantive law,[5] and it is perhaps on this ground the authors decided to discuss liability without reference to the implications of this insurance arrangement. This seems to have been unwise since this massive governmental underwriting of liability by the entire society which wishes to have atomic energy exploited for peaceful uses is surely an epochal novelty in tort law. It is difficult to see why this government insurance scheme does not make very persuasive the case for "an atomic accident compensation plan." Indeed one of the great ironies of recent writing on tort law is evident when we compare *Atoms and the Law* to Leon Green's *Traffic Victims*.[6] Green, writing about the auto accidents we have today, argues for junking the negligence system and utilizing the insurance principle so as to make feasible a compensation plan. Dean Stason and his colleagues writing about the atomic accident of tomorrow eschew the insurance that is already there and instead support a meticulous use of the negligence principle. Perhaps the moral is that in writing about tort policy we all tend to come out through the same door we enter.[7]

The discussion thus far has been unfair to the genuine novelty of much of the book and has given an erroneous impression of the degree to which it centers on the discussion of a liability, keyed to negligence. Actually of the 850 pages of tort discussion, some 200 are allotted to the insurance provisions, to strict liability and to workmen's compensation. And, more important, another 325 are devoted to issues of damages and causation where the book makes its most interesting and refreshing contributions. The authors make it clear that the atomic accident will make salient such currently esoteric damage issues as prenatal injuries, genetic injuries, shortened life spans, cumulative injuries, and an interesting variety of psychic harms due to fear of fall out, etc., and they have given us a fine text on these matters.

It is, however, with respect to causation that the exciting possibilities of the topic are most fully realized. Radiation accidents suggest splendid issues of multiple and gradual, cumulative causation. Moreover, as the

[5] See p. 574. The only change is that the amendment imposes a limit of $560 million on tort liability.

[6] GREEN, TRAFFIC VICTIMS: TORT LAW AND INSURANCE (1958).

[7] I have reviewed the Green proposal in 26 U. CHI. L. REV. 679 (1959). I think I would disagree with both Dean Green and Dean Stason. I do not find the compensation plan formula persuasive in the auto accident case; however, I do find it persuasive for the atomic accident.

authors excellently analyse, the new accidents will test profoundly our loose notions about probabilities both of causation and of future harm. All torts teachers have at some time speculated with their classes about what the result should be if we knew exactly what the probabilities of causation were. If the plaintiff shows that it is 60% likely that the defendant caused the harm, should he recover 100%? and if he shows it was 45% likely, should he recover nothing? Apparently exposure to radiation is such as to yield strict statistical estimates of the likelihood of future harm from the exposure. As the authors ably argue we must revise our thinking about causation if we are to deal with the radiation accident. They document carefully how odd and how wrong the results under current law will be here. Assume that under normal circumstances one person in 1000 will get leukemia and that after exposure to a certain quantum of radiation, 7 persons in 1000 will get leukemia. If then there is a tortious exposure to radiation, how should the damage issues be handled? If we wait until the 7 cases develop, each victim will be able to show that it was more likely than not that his sickness was caused by his exposure and would hence recover 100% under current law. However the leukemia may not develop for years after the exposure and the authors argue that the law should not wait. If, however, they sue promptly, the odds are only 7 in 1000 that the particular plaintiff will develop the sickness. At this point the authors suggest an ingenious contingent injury fund. Each plaintiff will get a contingent claim against the fund and each defendant will pay into the fund only the percentage of harm he may have caused. If the odds have been estimated properly the fund over time will have enough money to compensate the victims who actually do get leukemia. The authors have admirably broken with conventional thinking about causation and proof of future harm and their analysis is certain to enliven class discussions of causation for many years to come.[8]

Even here one is disturbed by the authors' failure to react to the implications of the government insurance coverage. Three points are involved. First, there is the issue of multiple defendants where causation in fact is as obscure as in the well known *Summers v. Tice.* The authors make the very bright point that if both defendants are insured by the same company we do not really have to solve the issue of which one caused the harm to do justice, since either way the loss will fall on the same fund. This does not keep them, however, from a very full analysis of multiple defendant cases although as they note, in the end, the atomic accident will be borne by the government insurance fund.[9] Second, they are impressed with the fairness of their contingent injury fund discount scheme to defendants who under it need never pay for more than the harm they have contingently caused. How-

[8] Their fund could extend also to the contingent claim where the odds are less than 50-50 that radiation caused the harm so long as radiation increased the chance of harm by some definite amount. See p. 515. See Estep, *Radiation Injuries and Statistics: The Need for a New Approach to Injury Litigation,* 59 MICH. L. REV. 259 (1960).

[9] Pp. 417-418.

ever, since all defendants will have to be insured it is likely that premiums will be level and will make the neat discriminations in their scheme unnecessary. The real costs of insurance coverage will be determined by the harms that actually do occur and not by the contingent chance of their occurring. Third, there is the problem in the above leukemia example of the recovery by the seventh victim since only six new victims were created by the exposure. Here the authors suggest that all ultimate victims recover only 6/7 of their loss since there is no way of identifying which one does not deserve to recover.[10] Within their framework this is a sensible solution. However the shadow of the mighty government insurance underwriting suggests the daring possibility that the government fund be regarded not as indemnity insurance but as accident insurance. If so, all concern with the incidence of liability becomes irrelevant and a way is suggested for allowing even the seventh victim full recovery. This is not the place to develop the point, but arguably the impact of the tax supported government fund is such that like English Social Insurance it might make tort law obsolete[11] by pooling the humanly caused accidents, which have been the preoccupation of tort law, with the other misfortunes man is heir to, into a general pervasive accident insurance program. Hence the debate might shift from the current one under auto compensation plans of why the auto victim and not the cancer victim to why the cancer victim of radiation and not all cancer victims.

The effort to make the book practical rather than speculative has in the end cut it off from some of the excitement inherent in the topic. Peaceful utilization of atomic energy will bring us a brave new world indeed but as the authors lead us into that new world they do so with a stubborn nineteenth century perspective. Although on this particular topic I personally would have preferred more of the spice that Green, James or Ehrenzweig would have given to it, Dean Stason and his co-authors have done a major job of research, analysis, and exposition and the American law of torts is the richer for it.

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CONSERVATION OF OIL AND GAS. A LEGAL HISTORY — 1958.[1] Edited by *Robert E. Sullivan.* Chicago: Section of Mineral and Natural Resources Law, American Bar Association, 1960. Pp. xi, 351. $5.00.

"Conservation" in the law of oil and gas is an ambiguous and provocative term. It may describe methods by which economic waste is confined. It

[10] P. 527.

[11] Of course the English did not actually abolish tort law but permitted some deduction of the social insurance recovery from the tort damages. See Friedman, *Social Insurance and the Principles of Tort Liability,* 63 HARV. L. REV. 241 (1949).

[1] Hereinafter cited as "text."