two hundred or more common law cases mentioned? An American reader will be equally helpless as to citations of cases from Germany, etc. Before a translation is made, the author should thus revise his text and footnotes with a view to what an American reader can be expected to understand and to know. Cumbersome though a translation may be, the book is too important to be lost to American legal science.

Fairness to the reader requires the statement that the author has dedicated the book to the present reviewer, who also wishes to state, however, that he believes that his judgment has not been influenced by this fact.

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United States v. United Shoe Machinery Corporation: An Economic Analysis of an Anti-trust Case. By Carl Kaysen. Cambridge: Harvard University Press, 1956. Pp. viii, 404. $6.50.

This book consists mainly of the memorandum which Professor Kaysen prepared as "law clerk" to Judge Wyzanski in connection with the trial before him of the United Shoe Machinery case. In addition there is an introductory chapter summarizing the earlier history of the company as it was disclosed in prior anti-trust suits, a chapter discussing the final decree, and a chapter dealing with the "economic standards of the anti-trust laws and the problem of its enforcement" (p. vii). The book is, therefore, confined to the analysis of the empirical evidence as it was disclosed at the trial. Hence its chief interest is to show by example what economic analysis, or at least a given economist can contribute to the interpretation of the evidence presented in an anti-trust case. As Professor Kaysen points out, the evidence and hence also its interpretation might be quite different if technical economic analysis was also used in preparing a case.

A basic issue for the economist and the lawyer in any monopolization case has two aspects: (1) whether the firm has achieved monopoly, and (2) whether it has engaged in monopolizing. A distinction is usually drawn by both economists and lawyers concerning monopolizing or attempts to monopolize between firms which have, and those which do not have some monopoly powers. This distinction which Professor Kaysen accepts rests on quite dubious analysis. Obviously a firm without monopoly power cannot charge competitive prices and impose restrictions on its customers. The distinction must presume then that a monopolist can maximize his monopoly revenue and at the same time impose additional restrictions on his customers which will either make it possible for the monopolist to prevent entry into his market or to acquire a monopoly in another market. In this form the analysis is quite wrong. The monopolist can either maximize his monopoly revenue or charge lower prices and impose additional restrictions. The distinction is also based on the presumption that a monopolist can use some of his monopoly gain—emphasized especially where, as in the case of United, there is evidence of price discrimination—to sell another product at lower prices and thus monopolize it. This presumption is correct but irrelevant. The source of funds is not an important consideration in determining whether charging a low price is an effective method of monopolizing a market.

In resolving the basic issue, whether United has a monopoly, Professor Kaysen accepts the conventional criterion of the structure of an industry, supplemented by his standard of performance or behavior. The structure of the industry—relative size of the firm under consideration—is of crucial importance for the lawyer. It is important in deciding whether the relatively well developed line between legal and illegal structure is crossed in a particular case insofar as it involves the issue of monopoly. And as already noted it is also important in deciding whether the less well developed line is crossed between legal and illegal structure in a particular case insofar as it involves the issue of monopolizing.

The validity of using the criterion of the structure of the industry depends on a correct definition of the product or industry. United produces a great many different kinds of shoe machinery. Its share of the market is not the same for each kind. Professor Kaysen devotes considerable space and ingenuity to a discussion of different methods of combining the machines of United so as to get a single measure of the relative size of United. He concludes that United has 85 per cent of the shoe machinery market. No method of weighting the different machines can remove our ignorance in defining the industry. To take an extreme case, if United sold 100 per cent of machine A and 5 per cent of machine B, and these machines are not substitutes, a single measure would understate United's monopoly of A and overstate United's monopoly of B. In this simple case it would not only be wrong to combine the machines, but it would also be unnecessary. The necessity arises because United produces many kinds of machines, sells different fractions of the total of each kind sold to shoe factories, and we do not know to what extent the machines are complementary, to what extent they are substitutes and how good substitutes they are. Without this information we cannot get a useful measure of United's position in something called shoe machinery. The issue is not too important in this case where all the fractions are very large. The method of combining different "products" might give quite misleading results where the fraction in each is very close to any line fixed by law.

A second basic issue to both economists and lawyers in any anti-trust case is whether the monopoly is a natural one, i.e., whether there are economies of scale throughout the region of possible outputs of shoe machinery, so that only United or another single firm can exist in this industry. For the lawyer this issue raises the possibility that the monopoly "was thrust upon" the firm, and therefore possibly not illegal. For the economist it raises the question whether anything can be done by state intervention to eliminate the monopoly. After reviewing the available evidence Professor Kaysen concludes that United does not have a natural monopoly. This is a troublesome issue. Direct evidence on economies of scale is difficult to obtain and even more difficult to interpret. In the light of these difficulties Professor Stigler has suggested that we should fall back on the test of survival as a means of identifying the presence or absence of economies of scale. This test can be applied only when a substantial interval of time has elapsed after the creation of a monopoly. Thus, if a merger were effected between all or most of the firms in an industry in 1900, we would not at that time know whether the explanation of the merger lies in an attempt to take advantage of economies of scale, or in an attempt to exploit a monopoly position. But if after half a century, the firm retained the same high percentage of the industry, and there were few or only minor firms we would have to conclude, absent effective exclusionary conduct, that the explanation must be in terms of economies of scale.

The United Shoe Machinery Co. was created by merger in 1899. It has thus remained a monopoly for a half-century. In fact the period may be much longer. In the first case against United the determination that it was not an illegal monopoly was derived from the emphasis which the court put on the complementary character of the products of the different firms, protected by patents, which merged into United. To the extent that this conclusion is valid, the monopoly of shoe machinery predates the merger. Professor Kaysen is properly critical of the conclusion. He bases his criticism on the evidence against complementarity, and on the more questionable ground that firms which produce complementary products are more likely to invade each other's monopolies than firms in other industries or newly created firms. And yet United's position in the market has remained relatively unchanged. The conclusion that United's position depends on economies of scale is qualified only by the continued existence of a few minor firms and by the emergence of a new but quite small firm (Compo) in connection with the development of a new method of attaching soles to uppers. To argue as Professor Kaysen does that the minor firms have not grown more rapidly because the resources available to them are insignificant in relation to the resources available to United, is only to assert that they continue to be small firms because they started as small firms. We should have to conclude that any monopoly which is confronted with relatively small firms would last more or less indefinitely. Expansion of relatively small firms and entry of new firms is of course difficult, i.e., it takes time. Is half a century too short a period?

Professor Kaysen's conclusion against economies of scale is ultimately determined not so much by the direct evidence as by the emphasis which he puts on behavior based on power, i.e., on the monopolizing activities of United to retain its original position and to enter new fields of shoe machinery as developed by itself and others.

No attempt will be made here to review the very comprehensive account provided by Professor Kaysen of the obstacles to entry which explain United's continued monopoly position. Some, such as the great variety of shoe machinery marketed by United are said to derive from the nature of its organization. Others, such as full-line forcing and leasing machines and providing services in combination only are said to derive from the nature of the organization of United and of its monopoly position. Only two of the monopolizing activities will be examined.

Before examining the two features of United's behavior in the context of monopolizing, it should be noted that in the second case against it,[1] some of the features such as certain tie-in arrangements were prohibited, and yet this does not appear to have made any difference. This in itself raises some doubt about the continued importance which is attached to certain practices as means of explaining the continued existence of a monopoly.

United has always followed the practice of leasing rather than selling its main lines of shoe machinery. The explanation for the practice is probably that it enables United to charge different prices to different shoe factories, under a uniform royalty rate. The leasing system is, however, taken by Kaysen, as by others, as an obstacle to entry of new firms. The argument can be divided into two parts. In deciding whether to purchase a new machine, a shoe factory which already owns a machine will compare the marginal cost of operating its present machine with the average cost of a new one. But this marginal cost will be less than the rent it would pay if it leased the machine, since the latter would have to include a return on the capital cost of the machine. In consequence, on this score alone, the firm would be more likely to buy a new machine if it leased than if it owned its existing machinery. However, this argument is not conclusive, since it assumes that the royalty is fixed. Faced with competition, the leasing firm can reduce royalty, and the bottom limit to what it will pay it to reduce is precisely that marginal cost which would enter into the factory's calculation if it owned the machine. But United levies a "penalty" for cancellation of any lease and return of the machines. Hence the marginal cost under leasing used in making the comparison, includes not only the royalty but also the "penalty." But even a monopolist cannot set any arbitrary penalty and continue to charge the same royalty in spite of the assertion of a member of United that the purpose of the penalty is not income-producing. Hence the introduction of a penalty does not change the essence of the matter. Perhaps selling and leasing can have differential effects on entry, but if so, they must rest on the other considerations noted by Kaysen, such as the absence of a second hand market which goes with leasing.

A second obstacle to entry noted by Kaysen is price discrimination. But the evidence he cites in this context has no relevance to pricing practices ordinarily regarded as price discrimination. Apparently he uses this term to refer to a much broader class of pricing practices. And it is not at all clear that either class of

[1] United Shoe Machinery Co. v. United States, 258 U.S. 451 (1922).

practices, though they clearly support the conclusion that monopoly exists, is relevant to monopolizing.

Price discrimination is generally taken to mean charging different prices for the same product to different customers when their demands are different and can be separated. United clearly practices such discrimination. The leasing system, as noted above, is one evidence of such discrimination. And other practices followed by United such as some of the tie-in arrangements of the earlier period, can logically be explained as designed to achieve such price discrimination.

Professor Kaysen does not consider explicitly this kind of price behavior, presumably because the necessary evidence in terms of cost-price relations is not readily available. Instead he takes the relation between cost and price for different machines. This is a dubious extension of the meaning of price discrimination. This extension would lead to the conclusion that price discrimination prevailed when the monopolist of one product charges a different price than the monopolist of another product and their cost conditions are the same. It does lead to the conclusion that when a monopolist charges a monopoly price for one product and a competitive price for another product, he practices price discrimination, and in fact that it is his monopoly position which enables him to do it. In fact he charges the competitive price because he does not have a monopoly, or because firms are entering the field. And whether charging low prices is a good method of keeping out rivals is, to repeat, not connected with the higher prices obtained from monopoly products. And price discrimination in the narrower sense, by increasing monopoly profit, stimulates entry.

In view of Professor Kaysen's conclusion that economies of scale do not explain United's continued position in its industry, the creation of, say, three firms by divestiture would have been feasible. In addition to the usual reluctance to apply this remedy, there is the absence of any precedent for breaking up a firm surrounded by four walls—United has a single plant. He cites also as reasons against dissolution the "diseconomies of trying to subdivide an operating technical unit—or, alternately, of condemning existing plant to idleness while at the same time encouraging the building of new plant . . ." (p. 274). He is influenced also by the "tremendous importance of leasing in the maintenance of United's dominance in the market" (p. 275). Hence he concludes: "Given a justified expectation of results from weaker measures, a remedy which is drastic, unprecedented and of doubtful practicability should not be tried" (p. 275).

In view of the importance which Professor Kaysen attaches to specific forms of behavior—"abuses"—as an explanation for the continued duration of United's position, he is quite optimistic about the probable effects of the remedies which were applied, although he would support stricter conditions as in a prohibition of all leasing. The remedies include lease or sale option; limitation of the duration of leases; service charges on an operation-by-operation, or annual contract basis; divestiture of the production and distribution of tacks, nails and eyelets; prohibition on distribution of supplies not produced by itself; prohibition on acquisitions of shoe machinery or shoe factory supply business or stock in such business if the transaction involves more than $10,000.00; and non-exclusive licensing on non-discriminatory reasonable royalty basis. Only time will show whether the optimism is justified and unfortunately even this will not be conclusive.

The list of remedies falls short of indicating adequately the details of the firm's behavior which are proscribed and prescribed. Hence, aside from their probable effectiveness in restoring competititon, the remedies raise the important and paradoxical issue of detailed regulation of business conduct in enforcing a law whose main purpose is to avoid government regulation of such conduct.

The critical comments made above should not be taken as representing a judgment about Professor Kaysen's achievement. For this purpose they would be quite unfair. The book will in fact be of substantial value to those who wish to study the problem of monopoly and the method of dealing with it, and to those who wish to study the shoe machinery industry as an example of this problem. A tremendous mass of empirical data and argument has been reviewed and organized in an orderly and useful manner. All the significant issues have received a proper emphasis.

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The History of Negotiable Instruments in English Law. By J. Milnes Holden. London: The Athlone Press, 1955. Pp. xxxix, 350. $7.00.

This small book—according to the preface—was prompted by a suggestion of Professor Jenks,[1] some sixty years ago, that no serious study of "the origin of negotiable instruments" in England had ever been done. The law writers, he said, were disposed to devote only "a page or two of discursive remarks to the historical side of the subject, as a sort of concession to decency." Of course, one might protest that case law is itself history; but that would be to quibble, for it is true that law text writers are concerned mainly with current black letter law, not origins.

At all events, Holden has tried manfully to write both of "law" and of "history," or to fill the "gap" between the two, as he puts it. The book, however, deals mostly with case law, although there is a considerable elaboration of economic history, some political history, not a little of statutes, banker's recommendations, the long jurisdictional contest between the courts in England, and so on. Not much of this is new. In fact, following a suggestion of Holmes, made just sixty years ago,[2] casebook editors here have long presented much of Hol-

[1] Jenks, The Early History of Negotiable Instruments, 9 L. Q. Rev. 70 (1893).

[2] Holmes, The Path of the Law, 10 Harv. L. Rev. 457, 469 (1897).