

appointed that the author did not suggest sound effects, groans as well as facial distortions, or perhaps, where the wounds are fresh, the sound of blood dripping." Professor Seavey poses the significant social question "Are six-figure judgments desirable?"<sup>3</sup> Larry Alan Bear, Esq., a member of the Massachusetts bar, comments that "the author perhaps attempted to do too much." He calls attention to the fact that "one aspect of negligence law that has been shamefully neglected in the law school curriculums is the great area of medico-legal problems."<sup>4</sup> Payne Ratner, Esq., a member of the Kansas bar, properly points out that the book is a compilation of personal experiences of the author and not a compendium of trials in any sense.<sup>5</sup>

The target of a law text book should be to explain, to clarify, and to assist the practicing lawyer. This book misses that target.

MILTON POLLACK\*

<sup>3</sup> Seavey, Review of Belli, *Modern Trials*, 69 Harv. L. Rev. 394, 395 (1955).

<sup>4</sup> Bear, Review of Belli, *Modern Trials*, 55 Col. L. Rev. 1240, 1242, 1244 (1955).

<sup>5</sup> Ratner, Review of Belli, *Modern Trials*, 4 Kansas L. Rev. 146 (1955).

\* Member of the New York Bar.

---

**The United States Patent System: Legal and Economic Conflicts in American Patent History.** By Floyd L. Vaughan. Norman, Okla.: University of Oklahoma Press, 1956. Pp. 368. \$8.50.

This volume, published posthumously, reports Mr. Vaughan's conclusions upon a return to the study of the patent system a generation after his *Economics of Our Patent System*, published in 1925. Following in a general way the organization of the earlier work, Mr. Vaughan discusses patent pools, patent consolidations, license agreements, cartels, patent-tying devices, patent validity problems, suppression and discouragement of inventors. A final chapter is devoted to the discussion of remedies for the faults he finds. At the root of the proposed remedies lies the conclusion that the patent system is now "effective primarily in the case of the independent inventor" and that there should be "a distinction between the independent inventor's patents and those of the hired inventor."<sup>1</sup>

Mr. Vaughan's view is predicated on the fact that the atmosphere of invention has changed since the founding of the American patent system 160 years ago. To a progressively increasing extent inventions are the result of the efforts of engineers and research personnel employed on a salary basis by corporate enterprise. As to such efforts Mr. Vaughan considers that the "expense . . . —salaries, laboratories, etc.—for the going concern is like the expense of time and motion studies, market research, and the like in that it is

<sup>1</sup> P. 317.

necessary in order to keep up or stay ahead." He concludes that in "a competitive setup the reward of corporate research is the advantage, however temporary, a company has in taking advantage of its findings" and that "patents apparently play little or no part as an incentive." And, finally, the "grant of patents to a corporation via its employees is another inane effort to adapt the legal theory of a corporate person to a law originally intended for the individual."<sup>2</sup>

The writer questions these statements and the ultimate conclusions Mr. Vaughan draws from them. To categorize the patent system as principally effective in regard to individual inventors is at best a dubious generalization. It prompts a discussion of the available information regarding operation of the patent system in a normally competitive environment—and the impact of the patent system upon technological activity in group enterprise.

At the outset it should be noted that there is a pressing need for more complete information regarding these phases of patent-system operation. A few recent economic studies of specific industries shed some light on the matter.<sup>3</sup> Works on industrial history also afford some data.<sup>4</sup> And persons working with patents and research have expressed conclusions based upon personal experience.<sup>5</sup> Current private<sup>6</sup> and public<sup>7</sup> investigations of the patent system should provide further enlightenment on the subject. These studies may well demonstrate the need for some changes. In the meantime, however, we can point to available data to refute conclusions such as those drawn by Mr. Vaughan.

Perhaps the most important single factor in the matter is a phenomenon that seems established beyond all doubt—the resistance of essentially all established enterprise to change. The history of the phonograph is a case in point. In 1877, Edison developed a crude cylinder-type embossed foil machine and thereby first reproduced recorded sound. In the succeeding years he obstinately clung to the general principles of this early machine. Eight years later when Bell and Tainter introduced the greatly improved cut wax type cylinder machine Edison scorned the change, although ultimately he was forced to

<sup>2</sup> P. 288.

<sup>3</sup> Notably, Bright, *The Electric Lamp Industry* (1949); MacLaurin, *Invention and Innovation in the Radio Industry* (1949). These studies are of particular interest for the modest conclusions reached as to the effect of the patent system on the industries studied. Neither is consistent with Mr. Vaughan's analysis.

<sup>4</sup> For a recent—and fascinating—example, see Gelatt, *The Fabulous Phonograph* (1955).

<sup>5</sup> E.g., Testimony of Charles F. Kettering, TNEC Hearings, 343 et seq.; testimony of Conway P. Coe, TNEC Hearings, 857 et seq.

<sup>6</sup> The Patent Trade-mark and Copyright Foundation of the George Washington University is currently engaged in a group of projects studying the patent system.

<sup>7</sup> The Senate Subcommittee on Patents, Trade-marks and Copyrights is currently engaged in a study of the patent system. Consult Sen. Rep. No. 1464, 84th Cong. 2d Sess. (1956).

adopt it. Two years later Berliner made the equally important innovations of the lateral-cut record groove and reproducible-disk type records. Yet Edison adhered to the obsolescent cylinder-type machine and did not give it up until he dropped out of the phonograph business entirely in 1929. The competitive activity resulting from Berliner's inventions led to the Victor Talking Machine Company which became the leading firm in the industry by the time of the phonograph revival following World War I. It remained for the employed engineers of Bell Telephone Laboratories, in 1924, to apply scientific principles to the design of the phonograph.<sup>8</sup> Electrical recording on a practical basis was the result; this was an innovation of tremendous practical importance because it freed the industry of the inherent limitations of mechanical recording. It then became possible to record faithfully the music of a full orchestra, chorus, or opera and eliminated the need for locating the recording artists in a musically-ineffective compact group about the horn of the recorder. However, Victor did not take a license from Bell Laboratories until forced to do so by collapse of the market for existing products.<sup>9</sup>

The history of the phonograph illustrates a complete cycle in the case of magnetic recording. Many of the principles of magnetic recording had been brought to light by the experiments of Vladimir Poulson at the turn of the century. But for four decades the idea was generally thought impractical and did not enjoy any significant commercial use in this country. The renaissance of magnetic recording came about in large measure through the work of Marvin Camras, who graduated from Armour Institute of Technology in 1940.<sup>10</sup> Before graduation Camras had not only acquired a deep interest in recording in general but also had faith in the possibilities of magnetic recording. While an undergraduate he had made a magnetic recorder and had demonstrated what could be done. Upon graduation he was employed to do further work in this field by the Armour Research Foundation. Today the Foundation licenses the use of the Camras inventions to an industry that did not exist when Camras started.

Of great significance is the fact that each of these changes in the phonograph emanated from a source outside the existing industry. Yet, save for the very early efforts, the activity was not that of individual inventors. The Bell Laboratories study was group research—motivated by the hope of profit.

<sup>8</sup> This research is reported in Maxfield and Harrison, *Methods of High Quality Recording and Reproducing of Music and Speech Based on Telephone Research*, 24 *Trans. A.I.E.E.* 243-53 (1926), and 5 *Bell System Technical J.* 493-523 (1926).

<sup>9</sup> This history of Bell Laboratories' activity is of particular interest in the light of the recent consent decree in *United States v. Western Electric Co.*, CCH Trade Reg. Rep. ¶ 68, 246 (D.N.J., 1956). Paragraphs IV, V, and VI of the decree appear to preclude manufacture of most products not used for common-carrier communications service by the defendants.

<sup>10</sup> As a classmate of Camras the writer had the opportunity of observing the Camras activities as they occurred.

Absent a patent system it is difficult to see how Bell Laboratories' management could justify the expense of such research; for Victor could then apply Bell Laboratories' results without compensation. Although his initial activities were individual, Camras' continued work was financed by Armour Research in the hope of patent-licensing profits.

The above represents a typical history of technical change. The problem of encouraging such change is not one of group research versus individual invention. Rather, the problem is to insure activity on all fronts. Both individual and group innovators must be given substantial encouragement in what is usually an uphill battle with established interests and virtually always a matter of substantial investment. The patent system is the major legal device directed to this end. And in the usual situation its effect should also impel continued research and innovation by the established firms; otherwise, they face loss of competitive position to an outsider with vision, ability, and patent rights who may forge ahead of the existing enterprises.

There remain the manifold problems arising from efforts to use the patent system for anti-competitive purposes. Problems of this kind are the major point of emphasis in Mr. Vaughan's book. One clue to their resolution lies in considering the patent system for what it is—a device to encourage competitive activity in technology. As in the case of competition generally, the activity successfully carried out may itself beget problems of monopoly. Also, as in competitive activity generally, the stresses and strains lead businessmen to seek relief by way of agreement rather than competition. In character, these problems incident to the patent system are generally the same problems as those to which the antitrust laws are directed.

It follows that the antitrust laws must be a major reliance in confining the use of patents to the competitive norm. Indeed, the antitrust laws in great measure provide the legal mechanism for achieving the very results critics such as Mr. Vaughan seek through patent legislation. "Suppression" is a case in point. There is no need to engage in fruitless controversy as to the extent of non-use of otherwise practical patented methods and products. Nearly all, if not all, actual instances of "suppression" involve violations of the antitrust law.<sup>11</sup> Similarly, in competitively significant patent interchanges, antitrust considerations now preclude arrangements that close off the patents to others or impose restrictions on competition.<sup>12</sup>

It may be added that, as a matter of patent law, the courts have gone far toward controlling the abuse of patents. The development of the patent "mis-

<sup>11</sup> E.g., *Blount Mfg. Co. v. Yale and Towne Mfg. Co.*, 166 Fed. 555 (C.C. D. Mass., 1909); *Hartford-Empire Co. v. United States*, 323 U.S. 386 (1945).

<sup>12</sup> Consult, e.g., Report of the Attorney General's National Committee to Study the Antitrust Laws, 242-47 (1955).

use" doctrine from the *Motion Picture Patents*<sup>13</sup> case to the present far-reaching doctrine is well known.<sup>14</sup> Less frequently noticed is the fact that the courts have, again as a matter of patent law, qualified injunctive patent relief in accordance with broad considerations of public welfare.<sup>15</sup> Even during the period characterized by Mr. Vaughan as one of "approval of pools that restrain trade"<sup>16</sup> the Supreme Court held a patent-pooling agreement illegal on public interest grounds.<sup>17</sup> Today, expanded procedures for discovery, the declaratory judgments statute and express statutory authorization for award of attorney fees considerably broaden the range of judicial control over undesirable patent practices.

Mr. Vaughan has performed a useful service in collecting and classifying what is now a considerable body of experience with abuses of the patent system. Indeed, his subtitle, "Legal and Economic Conflicts in American Patent History," suggests that he set forth to do no more. While the work is unfortunately marred by instances of incomplete information and inaccurate reporting, it will nevertheless be of utility within this narrow compass. As to the final resolution of the questions raised by Mr. Vaughan and others respecting the patent system itself, we must look to broader balanced studies directed to the typical rather than the atypical and to the impact of the system upon all phases of technological development.

GEORGE E. FROST\*

<sup>13</sup> *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502 (1917).

<sup>14</sup> Consult, e.g., Report of the Attorney General's National Committee to Study the Antitrust Laws, 250-54 (1955).

<sup>15</sup> E.g., *Milwaukee v. Activated Sludge, Inc.*, 69 F. 2d 577 (C.A. 7th, 1934), cert. denied, 293 U.S. 576 (1934).

<sup>16</sup> P. 40.

<sup>17</sup> *Pope Mfg. Co. v. Gormully*, 144 U.S. 224 (1892).

\* Member of the Chicago Bar.

---

**We the Judges: Studies in American and Indian Constitutional Law from Marshall to Mukherjea.** By William O. Douglas. Garden City, N.Y.: Doubleday & Co., 1956. Pp. 480. \$6.00.

This book represents the Tagore Law Lectures delivered by the author at the University of Calcutta in July, 1955. In 12 chapters, the author, Justice of the United States Supreme Court, surveys the main provisions of the American and the Indian constitutions—provisions relating to fundamental (civil) rights, the judiciary and their jurisdiction, judicial control, trade and commerce.

The book is of absorbing interest to the student of comparative constitu-