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## COMPULSORY PATENT LICENSING BY ANTITRUST DECREE

IN administering the antitrust laws, the ultimate question is not one of doctrine but of remedy. Given a conceded violation, what effective steps can be taken to restore competitive conditions? In many complex industrial situations, basic changes cannot be accomplished either by criminal penalties or by injunctions in the ordinary "cease and desist" form. The offensive trade practices are symptoms of a deeper fault—the monopolistic organization of the industry itself, the size and integration of the producing units, their relations to each other and to the market. An antitrust decree, therefore, must be based on a far reaching and sophisticated analysis of the underlying economic organization of the industry if it is to be effective in carrying out the purposes of the law.

A further requirement is that means be provided for the enforcement of the decree. In some cases it may be possible to devise a remedy which once executed requires no further administrative supervision, such as the forfeiture of patents, or the sale of stock or corporate assets. More typically, it is impossible to devise a decree which will restore competitive conditions by a single act, and the only effective mechanism is a decree which sets up general

objectives and an administering authority to make decisions on specific issues that arise in the future.

The Department of Justice has not had an easy task in framing and enforcing effective decrees.<sup>1</sup> The basic difficulty is perhaps that decrees have customarily been drawn in an effort to pronounce final adjudication of the rights of the parties. Although antitrust decrees<sup>2</sup> conventionally contain a provision reserving jurisdiction for the purpose of taking further action, the courts have been generally unsympathetic towards attempts by the Department or the defendants to secure modifications.<sup>3</sup> Antitrust decrees have not been framed so as to reserve issues for subsequent determination nor to allow persons not party to the suit to apply to the court for a determination of disputes arising under the decree. Such functions have traditionally been regarded as the proper province of administrative tribunals.<sup>3</sup>

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1. For an account of the difficulty experienced by the Antitrust Division in enforcing antitrust decrees, see HAMILTON and TILL, *TNEC REP., ANTITRUST IN ACTION*, Monograph No. 16 (1940); HAMILTON, *THE PATTERN OF COMPETITION* (1940) 75 *et seq.*; and HANDLER, *TNEC REP., CONSTRUCTION AND ENFORCEMENT OF THE FEDERAL ANTITRUST LAWS*, Monograph 38 (1941) 90-2.

2. The most striking example of the difficulty of securing modifications of a consent decree is the attempt on the part of the defendants to modify the packers' consent decree entered in 1920. The long legal battle that followed the entry of the decree is fully described by Donovan and McAllister, *Consent Decrees in the Enforcement of the Federal Antitrust Laws* (1933) 46 *HARV. L. REV.* 885, and HAMILTON and TILL, *op. cit. supra* note 1, at 95-7. The defendants' contention that the consent decree was void was overruled in *Swift & Co. v. United States*, 276 U. S. 311 (1928), and their request for modification was denied in *United States v. Swift & Co.*, 286 U. S. 106 (1932). In the language of Mr. Justice Cardozo in the second opinion, "Nothing less than a clear showing of grievous wrong evoked by new and unforeseen conditions should lead us to change what was decreed after years of litigation with the consent of all concerned. . . . What was then solemnly adjudged as a final composition of an historic litigation will not be lightly undone at the suit of the offenders, and the composition held for nothing." *Id.* at 119-20. The extensive economic evidence that the packers introduced relative to changed conditions was not regarded as such a showing. Conversely, where the Department sought to modify a consent decree so as to increase the severity of its provisions, the request was denied. *United States v. International Harvester Co.*, 274 U. S. 693 (1927). For a list of consent decrees which have been modified, see *TRADE REG. SERV.* ¶ 1560; see also *American Press Ass'n v. United States*, 245 Fed. 91 (C. C. A. 7th, 1917) and *United States v. E. I. du Pont de Nemours & Co.*, 273 Fed. 869 (D. Del. 1921).

The Department was successful in modifying a consent decree against Columbia Gas and Electric Corp., 36 F. Supp. 488 (D. Del. 1941), which action was upheld in a stockholder's suit. *Young v. Columbia Gas & Electric Corp.*, 129 F. (2d) 216 (C. C. A. 3rd, 1942). The Department was also successful in extending the duration of the Chrysler consent decree. *Chrysler Corp. v. United States*, 316 U. S. 556 (1942).

3. In *United States v. New York Coffee and Sugar Exchange*, 263 U. S. 611 (1924), the court refused to set up a system of regulation for the Exchange because of past violations on the ground that such regulation was not a proper judicial function. In some cases the courts have been willing to sanction decrees which were regulatory in nature. Thus, in *The Sugar Institute, Inc. v. United States*, 297 U. S. 553 (1936), the Supreme Court approved a complicated decree which could be enforced only through detailed regulation. Since the Sugar Institute was dissolved shortly after the Supreme Court decision, there was no oppor-

Even in those cases in which the courts have entered decrees containing prohibitions against specific trade practices, the Department has not energetically enforced them. Shortage of personnel has prevented an adequate surveillance, and the Department has had difficulty in securing evidence on

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tunity to test the decree as an instrument of regulation. See Fly, *Observations on the Anti-trust Laws, Economic Theory, and the Sugar Institute Decisions* (1936) 45 YALE L. J. 1339, 46 YALE L. J. 228.

A graphic illustration of the difficulties involved in trying to solve a problem calling for administrative regulation by means of the conventional type of equity decree is seen in the extensive litigation growing out of the St. Louis Terminal Association. In 1912 the Supreme Court ordered that a decree be entered which provided that the Terminal Railroad Association be required to provide equal service without discrimination, that railroads entering St. Louis be allowed to purchase stock in the Association, and further provided that any aggrieved railroad could appeal to the court for a determination of any dispute arising under the decree. *United States v. Terminal Railroad Ass'n of St. Louis*, 224 U. S. 383, 411-3 (1912). The request by the Department for the dissolution of the Association was denied. The district court framed a decree in accordance with the somewhat ambiguous mandate of the Supreme Court, and both parties appealed the decree as inconsistent with the mandate. The Department claimed that the decree should fix the charges to be made by the Terminal Association, but the Supreme Court held that such action would violate the Interstate Commerce Act reserving rate fixing to the Interstate Commerce Commission. *United States v. Terminal Railroad Ass'n of St. Louis*, 236 U. S. 194 (1915). The railroads coming into St. Louis from the West were dissatisfied with the operation of the decree, and instituted proceedings in civil contempt against the East side lines. The Supreme Court held that the issue of whether the East side lines should pay terminal charges was essentially a question of the division of joint rates and was a legislative rather than judicial issue which could be decided only by the Interstate Commerce Commission. *Terminal Railroad Ass'n of St. Louis v. United States*, 266 U. S. 17, 30-1 (1924). The West side lines thereupon presented their complaint to the Commission, which granted the relief they requested. The East side lines thereupon brought suit to enjoin the order of the Commission, and were successful not only in having the order set aside but in securing restitution from the West side lines for charges paid in accordance with the order. *Baltimore & Ohio Railroad v. United States*, 277 U. S. 291 (1928); 279 U. S. 781 (1929). The antitrust decree against the Association was thus effectively emasculated by the Supreme Court.

In two lower court cases decrees were also entered requiring a combination to throw open its facilities to all without discrimination as an alternative to being dissolved. *United States v. New England Fish Exchange*, 258 Fed. 732 (D. Mass. 1919); *United States v. Great Lakes Towing Co.*, 208 Fed. 733 (N. D. Ohio 1913).

A somewhat different technique of administrative regulation was attempted by the Department in the *Ford* and *Chrysler* automobile financing consent decrees. In addition to prohibiting discriminatory practices by the defendants, the decrees provided that the defendants could grant privileges to independent automobile financing companies who filed registration statements with the Antitrust Division in which they agreed to abstain from various practices injurious to automobile buyers. The decrees provided that the Department, the defendants, or any registered independent could petition the court for the suspension of registration of a company that was not complying with the regulations laid down in the registration statement. For an account of the decrees, see Isenbergh and Rubin, *Antitrust Enforcement Through Consent Decrees* (1940) 53 HARV. L. REV. 386 and addresses by Marshall and Arnold, *Antitrust Policy and Administration* (1939) CONFERENCES ON PUBLIC LAW, UNIVERSITY OF CHICAGO LAW SCHOOL.

The Department has also used arbitration machinery to settle administrative disputes arising under the *Paramount* consent decree, described *infra* at p. 110.

which to base a conviction for contempt. In addition, the procedural difficulties in a contempt action, such as the one-year statute of limitations, the privilege against self-incrimination, and the necessity of a clear showing of guilt, have largely nullified the effectiveness of contempt proceedings.<sup>4</sup>

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4. Contempt actions have been instituted very infrequently. HAMILTON and TILL, *op. cit. supra* note 1, at 77 and 93, give only two instances in which contempt proceedings have been initiated under decrees rendered in litigated cases and five instances for violation of consent decrees. Eugene Debs and three other labor union leaders were given jail sentences from three to six months in a contempt proceeding for violation of an injunction against interference with railroad operations by leading a strike. *United States v. Debs*, 64 Fed. 724 (N. D. Ill. 1894); petition for habeas corpus denied, *In re Debs*, 158 U. S. 564 (1895); petition for writ of error denied, 159 U. S. 251 (1895). Contempt proceedings were also instituted against one Weiner and four other defendants for violation of a decree forbidding them to interfere with poultry marketmen, and they were sentenced for terms ranging from three months to three years. In habeas corpus proceedings Weiner successfully argued that the limitation prescribed in the Clayton Act that sentences for contempt should not exceed six months was applicable to his case and therefore his sentence in excess of six months was invalid. *Hill v. United States ex rel. Weiner*, 84 F. (2d) 27 (C. C. A. 3rd, 1936).

The Department's attempt to enforce the consent decree against the National Cash Register Co. was considerably less successful. In 1916 the Department accepted a consent decree in settlement of a criminal action brought in 1911. In 1925 the Department instituted action against 92 sales agents who were charged with violating the provisions of the decree. The National Cash Register Co. reorganized and claimed that it was therefore no longer subject to the decree. In 1928 after extended legal struggles a single salesman was fined \$2000. For a full account, see HAMILTON and TILL, *op. cit. supra* note 1, at 93-5. In *United States v. Southern Wholesale Grocers Association*, 207 Fed. 434 (N. D. Ala. 1913), the Association and three individual defendants were found guilty of contempt of a consent decree and fined a total of \$5500. The offense consisted of continuing to issue lists of approved wholesalers; the Department was required to prove that the acts complained of were violations of the Sherman Act in themselves in addition to being violations of the decree. In *United States v. National Retail Credit Assoc.* (unreported), the defendants entered a plea of guilty and were fined \$4000 for contempt of a consent decree. Two contempt proceedings under motion picture consent decrees have also been instituted but their outcome has not been reported.

It will be observed that one of the principal difficulties in bringing contempt actions is whether the Clayton Act applies. Sec. 21-5, 38 STAT. 738 (1914), 28 U. S. C. §§ 386-90 (1940) provide that a one year statute of limitations and a six months maximum sentence, with the right of jury trial, shall be applied in the case of acts which are a contempt of an order of the court and also a criminal offense under any statute of the United States, or under the laws of any state in which the act was committed. In *United States v. Goldman*, 277 U. S. 229 (1928), one of the cases arising out of the *National Cash Register* decree, the Supreme Court ruled that the acts in violation of the decree were not also a crime and that the one year statute of limitations did not apply. In *Hill v. United States ex rel. Weiner*, *supra*, however, the acts of the defendants in coercing marketmen were held to be independent crimes.

An issue that has not been thoroughly explored is whether prosecutions for violations of decrees must be for criminal contempt. The only case which appears to have arisen in which the proceedings were brought in civil contempt is that arising under the decree entered against the St. Louis Terminal Railroad Association, cited in note 3 *supra*, and in that case the West side lines were the moving parties. There is no reason why the proceedings instituted by the Department should not likewise be for civil contempt. For a discussion of the problems arising out of contempt actions to enforce injunctions and the distinctions between

Finally, a decree rapidly becomes inappropriate as new firms emerge, technological processes develop, and trade practices change. Therefore the Department has preferred to bring a suit *de novo* when it is not satisfied with the effectiveness of an existing decree.<sup>5</sup>

There has been little systematic study on the impact of antitrust decrees in actual business practice. The Federal Trade Commission has investigated the effectiveness of the decrees against the American Tobacco Company<sup>6</sup> and the meat packers,<sup>7</sup> and private investigators have made some study of the effect of the Standard Oil, American Tobacco, and other dissolution decrees.<sup>8</sup> The effects of a decree are always a matter of speculation, however, particularly as to the causal relationship between the decree and subsequent events, since the decree is only one of a great many factors influencing the industry. The least that can be said is that in the past the decrees have not been effective in restoring competitive conditions.

The difficulties in framing an effective decree are particularly apparent

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civil and criminal contempt, see Moskovitz, *Contempt of Injunctions, Civil and Criminal* (1943) 43 COL. L. REV. 780. A description of the difficulties arising from the enforcement of orders of the National Labor Relations Board through contempt proceedings is given in Parker, *Contempt Procedure in the Enforcement of Administrative Orders* (1946) 40 ILL. L. REV. 344.

5. *United States v. Aluminum Co. of America*, 148 F. (2d) 416 (C. C. A. 2nd, 1945); *American Tobacco Co. v. United States*, 66 Sup. Ct. 1125 (U. S. 1946).

6. The Federal Trade Commission made three reports on the tobacco industry, all of which discussed the operation of the decree as a contributing factor. REPORT ON THE TOBACCO INDUSTRY (1920); PRICES OF TOBACCO PRODUCTS (1922), SEN. DOC. NO. 121, 67th Cong., 2nd Sess.; THE AMERICAN TOBACCO CO. AND THE IMPERIAL TOBACCO CO. (1925), SEN. DOC. NO. 34, 69th Cong., 1st Sess.

7. FEDERAL TRADE COMMISSION, REPORT ON PACKER CONSENT DECREE (1924) SEN. DOC. NO. 219, 68th Cong., 2nd Sess. The Commission also investigated the effect of the *Aluminum* and *International Harvester* consent decrees. FEDERAL TRADE COMMISSION, HOUSE-FURNISHINGS INDUSTRY: III (1924) 64-120, 111; CAUSES OF HIGH PRICES OF FARM IMPLEMENTS (1920) 653-80; AGRICULTURAL IMPLEMENT AND MACHINERY INDUSTRY (1938), HOUSE DOC. NO. 702, 75th Cong., 3rd Sess.

8. The most comprehensive investigation of the effect of the *Standard Oil* decree is contained in STOCKING, THE OIL INDUSTRY AND THE COMPETITIVE SYSTEM (1925). The tobacco decree is discussed in COX, COMPETITION IN THE AMERICAN TOBACCO INDUSTRY (1933). An extensive review of antitrust dissolution decrees is made in HALE, TRUST DISSOLUTION—PROBLEMS OF DISINTEGRATING BUSINESS UNITS OF MONOPOLISTIC SIZE (1939) (unpublished thesis in University of Chicago Library) and a more summary presentation in Hale, *Trust Dissolution: "Atomizing" Business Units of Monopolistic Size* (1940) 40 COL. L. REV. 615. In addition to the oil and tobacco decrees, Hale discusses the proceedings against *International Harvester*, *E. I. du Pont de Nemours*, *Eastman Kodak*, and *Corn Products Refining*. For additional citations, see HANDLER, TNEC REP., CONSTRUCTION AND ENFORCEMENT OF THE FEDERAL ANTITRUST LAWS, Monograph 38 (1941) 84. Hale concludes that the *International Harvester*, *Corn Products Refining*, *du Pont*, and *Eastman Kodak* decrees had very little effect in restoring competitive conditions or in challenging the predominance of the firms involved. In the *American Tobacco* and *Standard Oil* decrees the dominating units were effectively broken up and independents received a larger share of the business but the successor units continued to act as price leaders in their respective fields.

in cases where patents have been used to effectuate monopolistic control. So long as the patents are not canceled, a mere reshuffling of patent ownership will be ineffective in breaking up monopoly, and as long as the patentee is free to grant or withhold a patent license at his pleasure, the striking down of one set of restrictive conditions attached to a patent license may lead only to the adoption of another set of conditions which achieve the same effect. Until the past few years the patent laws generally afforded immunity from antitrust prosecution if restrictions were embodied in patent licenses, and even in those cases where the antitrust claim was allowed, the relief adopted was an injunction against the enforcement of the then existing patent licenses.<sup>9</sup>

By contrast, the decree issued in the case of *United States v. Hartford-Empire Co.*,<sup>10</sup> an antitrust suit against the major companies in the glass container industry, sets up administrative machinery under which the Antitrust Division has a large measure of supervisory authority over the entire glass container industry. In addition to provisions of the conventional type, the decree orders compulsory licensing of patents on glass-making machinery and provides that the court shall determine reasonable royalties for such licenses, determine reasonable sales prices for glass-making machinery, pass on the legality of future contracts, and adjudicate complaints by independents that they have been the victims of discrimination. While the terms of the decree require the approval of the court, a realistic appraisal of the situation suggests that in fact it is the Antitrust Division which will give or withhold the required approval, since the court has neither the inclination nor the means at its disposal to do more than review the recommendations of the Department. In this case, for perhaps the first time, the Antitrust Division has ample power at its disposal to enforce measures which it believes are necessary for the restoration of competition. The following discussion describes the administrative machinery which has been set up and outlines some of the economic considerations that should be taken into account in administering the decree in order to promote the maximum degree of competition.

### I. STRUCTURE OF THE GLASS CONTAINER INDUSTRY

The glass container industry is one of the most striking instances of the manner in which patents have been employed to monopolize an industry. A chaotic patent situation was resolved by a series of cross-licensing agreements which gave the principal parties such complete control over the industry that no new concerns could enter the business of producing either

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9. See note 38 *infra*.

10. The opinion of the District Court is found at 46 F. Supp. 541 (N. D. Ohio 1942); the opinion of the Supreme Court reversing in part at 323 U. S. 386 (1945) and a clarifying opinion at 324 U. S. 570 (1945). The decree entered upon remand has not been officially reported; portions of the decree are printed in the appendix.

glass containers or the machinery used to make containers. Moreover, existing container manufacturers were severely restricted as to the type and quantity of glassware they could manufacture.<sup>11</sup>

At the time that antitrust proceedings were instituted, the glass container industry was divided into two segments, producers of glass containers and producers of machinery used in making glass containers. The defendants in the suit included the two principal container manufacturers, the Owens-Illinois Glass Company and the Hazel-Atlas Glass Corporation, who accounted respectively for 35% and 16% of the total production. The two other defendant container manufacturers were Ball Brothers Co. and Thatcher Manufacturing Co., each producing 3% of the total production, and specializing in fruit jars and milk bottles respectively. The remainder of the business was split up among more than thirty independent concerns, the largest of which was Anchor-Hocking Glass Corporation, which accounted for 7% of the total production.<sup>12</sup>

In the glass machinery field, the Hartford-Empire Company and the Lynch Corporation, both joined as defendants, were the only two concerns engaged in selling or leasing machinery to glass container manufacturers. Hartford, through a subsidiary, manufactured gob feeders,<sup>13</sup> forming ma-

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11. The first public revelation of the employment of patents in the glass container industry was made in hearings before the Temporary National Economic Committee in 1938. 1 *Hearings before the Temporary National Economic Committee*, 75th Cong., 3rd Sess. (1938), Pt. 2, 301-667, 736-829. A comprehensive account of the development of the patent pool is given in the opinion of the District Court, 46 F. Supp. 541 (N. D. Ohio 1942). The case has been extensively discussed in Marcus, *Patents, Antitrust Law and Antitrust Judgments through Hartford-Empire* (1945) 34 GEO. L. J. 1, and in Comments (1945) 45 COL. L. REV. 601, (1940) 53 HARV. L. REV. 1173. The case also figures prominently in many general discussions of the relation between the patent and antitrust laws. See Henderson and Henderson, *Patent Licenses and the Antitrust Laws* (1945) 24 NEB. L. REV. 225; Petro, *Patents: Judicial Developments and Legislative Proposals* (1944) 12 U. OF CHI. L. REV. 80, 352; Berlin, *Patent Abuses, Compulsion to License and Recent Decisions* (1943) 43 COL. L. REV. 720; Meyers and Lewis, *The Patent "Franchise" and the Antitrust Laws* (1941) 30 GEO. L. J. 117, 260; Havighurst, *The Legal Status of Industrial Control by Patent* (1941) 35 ILL. L. REV. 495; Feuer, *The Patent Monopoly and the Antitrust Laws* (1938) 38 COL. L. REV. 1145; HAUE, ANTITRUST, PATENTS, AND INDUSTRIAL CONTROL (1942) (unpublished thesis in Yale Law Library); WOOD, PATENTS AND ANTITRUST LAW (1942); HAMILTON, TNEC REP., PATENTS AND FREE ENTERPRISE, Monograph 31 (1941), 109-15.

12. Brief for Appellant Hartford-Empire Co. (Supreme Court Oct. Term 1943) 64.

13. The gob feeder, Hartford's most important invention, is a device for dropping lumps of molten glass at regular intervals into forming molds. A gravity feed device was in use as early as 1903, but it was not until 1917 that an efficient gob feeder was constructed. The patent struggles revolved almost entirely around the gob feeder; one of the basic patents was in interference at the Patent Office for 27 years and did not issue until 1937. The other type of feeding, by means of suction, was developed by Owens some years earlier, and is now used only by Owens. For a fuller account of the technology of the gob feeder, see SCHOLLES, MODERN GLASS PRACTICE (1937) 178-80; for the technology of the suction process see SCHOLLES, 175-7.

chines,<sup>14</sup> stackers,<sup>15</sup> and lehrs<sup>16</sup> and leased the machines on a royalty basis, payments being graduated by glassware production; Lynch manufactured forming machines and sold them outright. The two major container manufacturers, Ownes and Hazel-Atlas, were integrated concerns; Hazel-Atlas manufactured all of its own machinery except forming machines, and Owens manufactured automatic suction process machinery, which was used in the production of more than half of Owens' glassware. Neither Owens nor Hazel-Atlas sold or leased the machinery which they manufactured to other concerns. The remaining container producers used Hartford or Lynch machinery exclusively, with the exception of three concerns which accounted for 3% of the total production.<sup>17</sup>

The Corning Glass Works did not belong to either of these two segments but dominated a related field, that of pressed and blown ware,<sup>18</sup> making both the machinery and the final product. The division of fields between glass containers and pressed and blown ware is largely an artificial one, which was carefully built up by Corning through its control of Hartford. The first cross-licensing agreements, executed by Corning and Hartford, granted Corning a license to use the patents of both concerns in the pressed and blown ware field, and granted Hartford permission to issue licenses for the use of patents of both concerns in the glass container field.<sup>19</sup>

The principal patents and patent applications on the gob-feeding machine were originally held by Hartford, Corning, Owens, and Hazel-Atlas. Shortly after the execution of the cross-licensing agreements between Hartford and Corning, Hartford and Owens entered into a cross-licensing agreement by the terms of which Hartford was permitted to grant licenses on patents held

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14. A forming machine is a device which shapes the molten glass into a mold, either by compressed air or mechanical pressure or both. Separate forming machines are used only with the gob feeding process; the suction machine combines the operation of feeding and forming in a single machine. Hartford and Lynch both made forming machines.

15. A stacker is a device which removes red hot glassware from the forming machine and places it on a belt moving into the annealing oven or lehr. Hartford "leased" its stackers on a single payment basis which was tantamount to a sale.

16. A lehr is an annealing oven. Glassware is placed red hot on a moving belt at one end and emerges at the other end ready for packing. Hartford enjoyed a monopoly on the leasing of lehrs.

17. Finding 494. The District Court issued 628 findings of fact on the same day that it handed down its opinion. These findings provide an excellent summary of the evolution of the patent pool.

18. The principal products in that field are incandescent bulbs, heat resisting ware, optical and scientific glass products, and glass tubing.

19. Findings 29, 50, 53, 54, 56. The first agreement was signed in 1916 between Hartford Fairmont Co. and Empire Machine Co., a patent holding company 90% of whose stock was owned by Corning. In 1922 the present Hartford-Empire Co. was formed which acquired all the assets of Hartford Fairmont and all assets of Empire relating to the manufacture of glass making machinery. Empire received 43% of the stock of the new company. Since that date four directors of Hartford-Empire, out of a total varying from eight to nine, were also directors of Corning or Empire. A second agreement was executed by the newly formed Hartford-Empire Co. with Empire in 1922.

by both parties, Owens reserving the privilege to veto the grant of a license in certain cases. In return for the privilege of issuing licenses on Owens' patents, Hartford paid Owens half of its royalty income.<sup>20</sup> Hartford and Owens conducted a vigorous campaign to gain control of the entire field, employing a variety of sharp practices in the Patent Office and the courts which were strongly condemned by the lower court.<sup>21</sup> The campaign was at last successful in 1932 when Hazel-Atlas was finally brought to terms, and cross-licensing agreements were executed which provided that Hazel-Atlas would pay standard royalties to Hartford (although Hazel-Atlas did not receive the benefit of Hartford's maintenance services or lease Hartford-built machinery) and would receive a share of Hartford's royalty income. Hartford was authorized to grant licenses on all of Hazel-Atlas' patents.<sup>22</sup>

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20. Findings 111, 114, 121, 122. The agreement was signed in 1924. Owens received one half of Hartford's income from licensed inventions in excess of \$600,000. Hartford and Owens acknowledged the validity of each other's patents and agreed to join in buying up and contesting rival claims, each party to bear half the cost. The much discussed veto provision, abrogated in 1931 because of fear of antitrust prosecution, provided that Hartford would not license Owens' patents without Owens' consent, except to existing Hartford licensees for the field of ware covered by existing licenses or to a legitimate glass manufacturer of sound commercial standing who was not a user of his own products, for types of ware made by such manufacturer within twelve months prior to the contract. In practice, before and after 1931, Hartford did not grant licenses either under Owens or Hartford patents where such a grant would have been adverse to Owens' interests.

21. Findings 150-95. In all but one instance the conduct of Hartford and Owens was within the strict letter of the law. The two companies exploited all the weaknesses of the present patent laws in a very skillful manner. The single instance of acknowledged fraud lay in the employment of the so-called Clarke article in the Patent Office and the courts. The article, which was written by Hartford attorneys and signed by a union official named Clarke, described the supposed unique characteristics of the Hartford gob feeder and its significant advancement of the art. The article was submitted to the Patent Office but was apparently not relied upon in issuing the patent to Hartford. The Circuit Court of Appeals for the Third Circuit quoted extensively from the article, however, in sustaining Hartford's claim of infringement against Hazel-Atlas. In 1941 Hazel-Atlas successfully brought suit to have the decree of infringement set aside because of the fraudulent use of the Clarke article, *Hazel-Atlas Glass Co. v. Hartford-Empire Co.*, 322 U. S. 238 (1944) and the Department of Justice has filed a suit in the District Court of Delaware to cancel the patents involved on the same ground. The responsible attorneys have been disbarred.

In subsequent proceedings after the Supreme Court decision in the *Hazel-Atlas* case, it was held that the defendants could recover only the amounts paid in the original accounting and could not recover royalties subsequently paid or lost profits. *Hartford-Empire Co. v. Shawkee Mfg. Co.*, 67 F. Supp. 26 (W. D. Pa. 1946).

The success which Hartford and Owens had in establishing their claims is indicative of the pressing need for reform of antiquated patent procedure, both in the Patent Office and the courts. There have been many proposals for streamlining of procedure; e.g., HAMILTON, TNEC REP., PATENTS AND FREE ENTERPRISE, Monograph 31 (1941); Brown, *The Situation Confronting Our Patent System* (1939) 21 J. PAT. OFF. SOC. 159; Rice, *A Constructive Patent Law* (1939) 16 N. Y. U. L. Q. REV. 179; Gottschalk, *American Business Looks At Patent Reform* (1946) 28 J. PAT. OFF. SOC. 153; Kenyon, *Current Problems in the Patent System*, *id.* 225.

22. Findings 212, 221, 421-5. The basic agreement provided that Hazel-Atlas should

The conflicting patent situation in the forming-machine field was resolved with less difficulty. Lynch was persuaded of the mutual advantage to be gained from cross-licensing of patents so as to divide up the market for forming-machines between Hartford and Lynch, and in 1933 the two companies concluded an agreement, which authorized Lynch to sell machinery embodying Hartford forming machine patents on a condition which in effect meant that Lynch's forming-machines could be used only with Hartford feeders, and which authorized Hartford to lease machines embodying Lynch forming-machine patents without payment of royalty, provided that Hartford did not exceed a prescribed share of the market.<sup>23</sup>

The result of the cross-licensing agreements described was to give Hartford, Owens, Hazel-Atlas, Lynch, and Corning virtually complete control of the glass container and glass machinery industry. No container manufacturer could use the patents of any of the five concerns without securing a license from Hartford, and Hartford did not grant new licenses except on rare occasions. Hartford licenses all provided that the machinery was not to be used in the manufacture of pressed and blown ware, a condition which

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pay Hartford \$1,000,000 in full settlement of mutual infringement claims and Hartford agreed to pay Owens and Hazel-Atlas each one third of its net annual royalty income in excess of \$850,000. Hartford granted a license to Hazel-Atlas to produce all types of glass containers except milk bottles and a few other specialties, and Owens reserved a number of restrictions on the type of container Hazel-Atlas could manufacture under Owens' patents. Hazel-Atlas granted unrestricted licenses under its patents to both Hartford and Owens. Hazel-Atlas retained title to its machinery on which it paid royalties. In 1935 the basic contract was modified; Hartford agreed to pay Owens \$2,500,000 in exchange for Owens' relinquishment of its right to future payments under the 1932 agreement from Hartford, and Hartford granted Owens a royalty free license under Hartford's suction patents.

At the time the 1932 contract was signed, Hazel-Atlas thought it had received a very harsh settlement which it was forced to accept because of Hartford's success in patent infringement litigation (the same litigation discussed in note 21 *supra*). Hartford's royalty income increased beyond expectations, however, and in every year subsequent to 1935 Hazel-Atlas received more from Hartford under the royalty sharing agreement than it paid to Hartford in royalties.

23. Findings 330-8, 347. Hartford and Owens each put up \$125,000 and individuals associated with Owens put up \$200,000 to enable Lynch to buy up its principal competitor. Hartford was permitted to have manufactured and lease to its licensees forming machines embodying Lynch patents without payment of royalty to Lynch as long as the machines leased by Hartford accounted for less than 40% of the total glassware production produced on all forming machines leased by Hartford or which had been sold by Lynch. For machines in excess of the quota Hartford agreed to pay a royalty of \$3000. Lynch was permitted to manufacture and sell forming machines embodying Hartford patents royalty-free to all those who held forming machine licenses from Hartford. Hartford issued forming machine licenses free to all licensees under its feeder patents, but charged the same royalty for a forming machine license unaccompanied with a feeder license as the royalty for a feeder license alone. After the agreement Lynch never sold forming machines which were not used with Hartford feeders, and Hartford never exceeded its quota of the market. In 1938, one month before the TNEC hearings began, the agreement was changed so as to allow Lynch to sell wide mouth forming machines without requiring the purchaser to secure a forming machine license from Hartford, and Lynch agreed to pay a royalty of \$100 on every machine sold.

was inserted by Corning in order to restrict competition in the pressed and blown ware field. Owens enjoyed a license from Hartford that was otherwise unrestricted; the remaining concerns were restricted in a bewildering variety of ways, principal among which were the type of glassware that could be produced, including such specifications as weight, color, capacity, and composition, the quantity that could be produced, and in a few cases the market in which the glassware could be sold and the use to which it could be put. There was no restriction, however, as to the price at which the glassware could be sold.

## II. THE DECREE

An analysis of the structure of the glass industry suggests that the only way in which to enforce competitive conditions is to require compulsory licensing of patents. It is difficult to see how the mere dissolution of Hartford would have any effect in promoting competition, since the patents were already pretty well dispersed among the five principal defendants, and in view of the overlapping patent claims the only alternative to a series of cross-licensing agreements would be a protracted sequence of infringement suits to determine the validity of the conflicting claims. An injunction against restrictive licensing might be ineffective, since licenses might still be withheld for the breach of implied as well as express conditions.

In its complaint the Department of Justice requested that Hartford be dissolved and that all existing cross-licensing and restrictive licensing agreements be cancelled. After an extensive trial in Toledo, Judge Kloeb handed down an opinion which sustained virtually all the allegations of the Department, but which refused to order the dissolution of Hartford, at least until all other measures had been tried.<sup>24</sup> The court approved the other recommendations of the Department, however, the most striking of which was the requirement that the defendants license their patents to all applicants royalty-free, and after very cursory hearings, the decree which was drafted by the Department was approved with a few minor changes.<sup>25</sup>

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24. 46 F. Supp. 541, 620-1 (N. D. Ohio 1942).

25. A complete account of the circumstances surrounding the entry of the judgment is given in Memorandum Filed by the United States (Oct. 1944). On August 25 the District Court handed down its opinion outlining the general nature of the relief to be granted; on September 19 the Department submitted a proposed draft. Argument was heard on October 1, which was limited to four hours for all the defendants together. On October 5 the principal defendants filed written objections. The Department submitted a second draft on October 7, incorporating a number of changes, and on October 8 the District Court signed the second draft after making a few additional changes. The twenty odd changes from the first draft to the court decree were of very minor importance.

The District Court denied the motion of 13 independent companies to intervene to submit recommendations as to the propriety of the relief to be granted. 46 F. Supp. 622. It does not appear that the defendants protested the short time allowed for hearings on the judgment and as far as the printed record indicates, failed to make many of the objections to the judgment that were extensively argued on appeal.

In addition to effecting the cancellation of the defendants' patents through the medium of royalty-free licensing, the decree contained a large number of other provisions which were directed against the continuance of practices which had been used by the defendants in building up their position. In order to terminate the control which Corning exercised over Hartford, the decree forbade the ownership of stock by one defendant in another, and prohibited officers and directors of one of the defendants from serving as an officer or director or owning stock in more than one corporate defendant.<sup>26</sup> The decree contained provisions which were designed to prevent the defendants from buying up patents for the purpose of "fencing" in the inventions of competitors, and to prevent the repetition of conduct in the Patent Office which was practiced by Hartford and Owens in consolidating their patent position.<sup>27</sup> The decree further ordered the sale of two plants which had been purchased by Ball and Lynch,<sup>28</sup> and forbade the further acquisition of competing plants in the absence of court approval.<sup>29</sup> In addition, the decree contained an extensive series of prohibitions against various types of

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26. Except for Corning's control of Hartford through Empire Machine Co., interlocking stock holdings and directorates appear to have played virtually no part. The president of Owens was at one time a director of Hazel-Atlas and held a considerable number of shares in competing glass companies, but except for the Corning-Hartford link it does not appear that any of the corporate defendants owned stock in any of the other defendants, and the overlapping stock holdings of individuals was not large.

27. Par. 36-38. (The paragraph numbers in the following notes refer to the revised decree). The provisions refer only to collective action by the defendants with respect to some other person or corporation and exempts agreements between patent lawyer and client. Hartford and Owens were the only parties who participated in collective patent action to a large degree, although Lynch and several individuals were involved in several instances. Par. 36 prohibits joint action to apply for patents "primarily for the purpose of using patents issued on said applications to fence in, prevent or hinder others from using, developing, or improving their own inventions"; it may be surmised that proof of a violation of this section would be extremely difficult to secure.

Par. 37-38 prohibit any agreement or conspiracy to obtain dominating patents on glass making machinery, to exchange patent applications, and to perform specified types of conduct in interference and other proceedings in the Patent Office. The prohibitions are directed against actions taken by Hartford and Owens in their patent campaign from 1924 to 1932, but there is considerable doubt as to their application in future cases. Brief for the United States on Reargument (Supreme Court, Oct. 1944) 215-31; Joint Brief for Appellants on Reargument (Supreme Court, Sept. 4, 1944) 200-10.

28. Par. 29, 34. Ball is required to offer for sale within 60 days from the entry of the judgment all corporate assets at Three Rivers and Lynch is given until Sept. 2, 1947 to offer for sale all corporate assets acquired from the Miller Machine Mold Works. The court recognizes that a purchaser may be difficult to find, and requires Ball and Lynch to hold the offer open until an opportunity to sell arises, which must be under conditions approved by the court. As of August 13, 1946 the court had not approved any proposed plan of sale.

29. Par. 25(B). The court is not required to find that such acquisition may "substantially" lessen competition in order to withhold its approval, a provision which has virtually nullified the prohibition of § 7 of the Clayton Act. Approval is given for the acquisition of assets of subsidiaries and of companies doing business entirely outside the United States.

On May 11 the District Court approved the application of Owens to purchase the assets of the Kimble Glass Company. *New York Times*, May 12, 1946, § 3, p. 5, col. 5.

discriminatory practices which had been employed by the defendants,<sup>30</sup> and with an excess of caution prohibited the institution of infringement suits<sup>31</sup> and the practice of restrictive licensing.<sup>32</sup> A novel feature of the decree was the appointment of a receiver to assume control of Hartford to preserve the status quo and to make recommendations for further action.

Upon appeal to the Supreme Court from the decree, the six justices participating in the decision<sup>33</sup> affirmed the findings of the District Court that the defendants had violated the antitrust laws. The contention of the defendants that their conduct was authorized by the patent laws was dismissed summarily on the ground that the patent laws did not authorize a combination of patentees to attach conditions to the use of patented machinery which gave them a monopoly of the output of such patented machinery.<sup>34</sup> Four justices, however, found that the remedy afforded by the decree was too harsh. Mr. Justice Roberts, speaking for the majority, objected particularly to the compulsory royalty-free licensing requirement, although he complained of many other provisions and criticized the draftsmanship in severe

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30. Par. 28 codifies other familiar prohibitions under the antitrust laws, forbidding agreements to limit production or fix prices of glassware or machinery, to allocate markets, or to distribute data of any type with the intent to achieve the listed effects. See also note 32 *infra*.

31. Par. 16. The defendants are enjoined from bringing infringement suits for infringement prior to the suit, and are enjoined from bringing infringement suits in the future unless the infringer has refused to accept a license under par. 13.

32. Par. 19. The defendants are enjoined from placing restrictions in patent licenses which limit the type of glassware to be produced, the quantity produced, or the terms of sale. The defendants are also enjoined from requiring that one type of machinery be used with any other type, that licensees acknowledge the validity of the patents under license, that improvements of the lessee shall become the property of the lessor, or from inserting any condition which discriminates among licensees.

33. Mr. Justice Roberts wrote the majority opinion, in which Justices Stone, Frankfurter, and Reed joined. Justices Black and Rutledge dissented in separate opinions; Justices Jackson, Murphy, and Douglas did not participate.

34. The District Court found that the defendants had violated Sections 1 and 2 of the Sherman Act by monopolizing patents, by monopolizing patented machinery, and by monopolizing unpatented glassware, but did not clearly specify whether the first two types of monopoly were illegal only because they were used to monopolize unpatented products. A dictum of Mr. Justice Brandeis in *Standard Oil Co. (Indiana) v. United States*, 283 U. S. 163, 175-6 (1931), first suggested that cross-licensing agreements might be illegal if competition between patented processes should be restrained. The only contested cases to date in which a combination to monopolize a patented product have been held to be illegal appear to be *United States v. Masonite Corp.*, 316 U. S. 265 (1942) and *United States v. Vehicular Parking*, 54 F. Supp. 828, 56 F. Supp. 297, 61 F. Supp. 656 (D. Del. 1944-5). The first case held that price-fixing by Masonite of hardboard which was covered by both method and product patents was illegal, and the second case held that price fixing of patented parking meters was illegal. The Justices of the Supreme Court and Judge Kloeb regarded the question of whether the defendants had violated the antitrust laws as scarcely worth discussion and simply cited previous cases without attempting to elucidate further doctrinal refinements in the interrelation between the patent and antitrust laws.

terms.<sup>35</sup> Instead of simply formulating the principles to be followed by the District Court in modifying the decree, however, Mr. Justice Roberts undertook to rewrite the decree himself.<sup>36</sup> In point of fact the pains which he took in rewriting the decree were largely disregarded, since the revised decree as finally entered on October 31, 1945 (more than ten months after the original Supreme Court decision) contained some provisions in flat contradiction of the Supreme Court decision, and added a considerable number of new provisions.<sup>37</sup>

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35. Mr. Justice Roberts criticized the draftsmanship of the decree for covering activities outside the United States, for including individuals as well as corporate defendants in almost every paragraph, for enjoining general violations of the antitrust laws, and for requiring compulsory licensing of patents not connected with the manufacture of glass making machinery. He also pointed out that some of the sections duplicated each other and enjoined the performance of agreements which had long since expired. Mr. Justice Roberts also made substantive changes to dissolve the Glass Container Association, to limit the scope of the discovery provision, and to narrow the provision regarding forfeiture of patents for non-use. For a full discussion see Marcus, *supra* note 11, at 56-61.

36. Some of the ambiguities in Mr. Justice Roberts' first opinion were resolved by a second opinion which was written in response to a request for clarification submitted by the Department, 324 U. S. 570 (1945). Mr. Justice Roberts in that opinion sustained the objection of the Department with regard to the receiver paying over all impounded royalties to Hartford before permitting the licensees to litigate claims against Hartford, and clarified a number of points concerning which the Department was seemingly unnecessarily apprehensive.

Mr. Justice Roberts' effort to draw up the decree in detail is apparently without precedent. In a number of cases the Supreme Court has modified the decree of the lower court, but the changes made have been either of a very minor nature or the revision to be made was clear. *United States v. Univis Lens Co.*, 316 U. S. 241 (1942); *Sugar Institute v. United States*, 297 U. S. 553 (1936); *United States v. Swift & Co.*, 286 U. S. 106 (1932); *United States v. Terminal R. R. Ass'n of St. Louis*, 236 U. S. 194 (1915); *United States v. Union Pacific R. R.*, 226 U. S. 470 (1913); *Swift & Co. v. United States*, 196 U. S. 375 (1905). If the decree must be revised to a significant extent, it has been customary to remand the case to the lower court where a more effective consultation with the parties is possible. *United States v. American Tobacco Co.*, 221 U. S. 106 (1911).

37. The Supreme Court opinion stated that the Glass Container Association should be dissolved and that no new trade association should be formed for a period of five years; the final decree provides that the defendants may join a new association, the Glass Container Manufacturers Institute. The defendants claimed that trade association activities were essential to conduct research on new uses for glass containers and to maintain the competitive position of glass containers against containers made of other materials, and the Department apparently saw no objection to the existence of an association whose activities were so limited. The final decree also listed specific reformations to be made in existing contracts, rather than enjoining the enforcement of all existing cross-licensing agreements as was done in the original version, and contained a much more elaborate provision with regard to compulsory licensing. A considerable number of other variations are found which were not prescribed by Mr. Justice Roberts in his opinion.

The revised decree was also drafted by the Department, after lengthy negotiations with the defendants, and the District Court was called upon to settle only a small number of questions on which the parties could not agree. The principal dispute was over par. 13 (C), which is discussed in the next section; the court ruled in favor of the defendants in requiring compulsory leasing only of patented machinery, and in favor of the Department in making

Rather than analyze the long and complicated decree<sup>33</sup> in detail, it is proposed to concentrate in the present discussion on the paragraphs which set up a system of compulsory licensing of patents at a "reasonable" royalty and the leasing and sale of glass machinery at "reasonable" prices. It is these provisions which represent the principal change from the original decree, and the effectiveness of the decree in enforcing competitive conditions will be governed principally by these provisions.

Paragraph 12 sets up the machinery for compulsory leasing and sale of glass machinery, and is thus directed at Hartford and Lynch, although like other provisions of the decree it includes all the defendants. The defendants are enjoined from engaging in interstate commerce unless they file an agreement with the court to lease or sell patented glass-making machinery at "reasonable" prices. The defendants may choose to lease or sell at their option, or to refuse to lease or sell at all, but once a machine has been offered for sale or lease, the same offer must be made to all other applicants. If any applicant who desires to purchase machines thinks that the price is unreasonable, he may "upon 30 days notice to the interested defendant and the Attorney General apply to this Court for the determination of reasonable

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the grant of a license not conditional upon the grant of a reciprocal license and on several minor points. Joint Brief entitled "Suggestions of the Parties on the Judgment After Mandate."

38. The final decree has not been reported. Par. 12 and 13 and extracts from other paragraphs are set forth in the appendix.

The decree in the present case should be contrasted with the decree entered in *United States v. National Lead Co.*, 63 F. Supp. 513, 532 (S. D. N. Y. 1945), *probable jurisdiction noted*, 66 Sup. Ct. 1121 (U. S. 1946), which contained a very short provision directing the defendants to grant a license under their titanium production patents to any applicant at a reasonable uniform royalty, provided that the applicant granted a reciprocal license. See also *United States v. Vehicular Parking, Ltd.*, 61 F. Supp. 656 (D. Del. 1945), in which the defendants were directed to offer licenses for the production of patented parking meters at a reasonable royalty, and the consent decrees listed in note 58 *infra*.

Decrees entered in earlier antitrust suits involving patents did not provide for compulsory licensing or administrative supervision of any sort. In *Standard Sanitary Manufacturing Co. v. United States*, 226 U. S. 20 (1912), decree reported in *SHALE, DECREES AND JUDGMENTS IN FEDERAL ANTITRUST CASES* (1918) (hereafter cited as *SHALE*) 263, the defendants were enjoined from enforcing contracts which fixed prices for enamel ironware made by a patented process, and were enjoined generally from restraining trade. The decree provided that the patentee could grant any "lawful" licenses in the future. To the same effect was the decree in *United States v. Motion Picture Patents Co.*, 225 Fed. 800 (E. D. Penn. 1915); *SHALE*, 377. Three early consent decrees were of the same tenor. *United States v. Porcelain Appliance Corp.* (N. D. Ohio Oct. 16, 1925) cited in *Meyers and Lewis, The Patent "Franchise" and the Antitrust Laws II* (1942) 30 *Geo. L. J.* 260, 262, n. 105 (patent holding company dissolved and patents reassigned to original owners); *United States v. Discher* (S. D. N. Y. 1917); *SHALE*, 645 (defendants enjoined from acting in concert to issue restrictive licenses); *United States v. Krentler-Arnold Hinge Last Co.* (E. D. Mich. 1913); *SHALE*, 407 (fixing prices for lasts on which patents had expired enjoined.) In three recent Supreme Court cases specified types of restrictive licensing were enjoined. *United States v. Univis Lens Co.*, 316 U. S. 241 (1942); *United States v. Masonite Corp.*, 316 U. S. 265 (1942); *Ethyl Gasoline Corp. v. United States*, 309 U. S. 436 (1940).

prices and for an order of compliance with the prices so determined." In practical effect the provision quoted means that the Antitrust Division, subject to court approval, can fix prices for all glass-making machinery that is offered for sale or lease.

Paragraph 13, on the other hand, sets up machinery for the compulsory licensing of patents on glass-making machinery, and therefore is directed at Owens, Hazel-Atlas, Corning,<sup>39</sup> and Ball, as well as Hartford and Lynch, since all concerns own some patents in the field. Unlike the leasing and sale of machinery, the defendants are not simply required to refrain from discrimination but are required to grant a license to any applicant for any combination of patents without restrictive conditions, whether the combination of patents is embodied in any glass machinery which has been constructed or not, both the terms of the license and the royalty schedule being subject to approval by the court.<sup>40</sup> The requirement extends not only to patents presently held but to those acquired in the future.

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39. The provisions of the decree regarding Corning illustrate the tactical factors that must be taken into account in drafting a decree. The Department was anxious to require compulsory licensing for Corning's most important machine, the ribbon machine (used primarily for the manufacture of light bulbs, but which can also be used to make tumblers and other items in the container field). The original decree required Corning to offer unlimited licenses on the ribbon machine. The Supreme Court decision, however, limited the requirement of compulsory licensing to machinery used for the manufacture of containers. Under that decision, the Department could have required only a license for a restricted field, namely, that of containers, and such a restricted license might be an embarrassing precedent in the prosecution of future antitrust suits in which licenses limited to a particular field were attacked. The Department accordingly adopted the ingenious solution of enjoining Corning from prosecuting an infringement suit against any manufacturer using the ribbon machine for the production of tumblers, oven ware, table ware, or kitchen ware if the manufacturer has offered to pay a reasonable royalty, presumably leaving Corning free to prosecute an infringement suit against any one using the machine for other purposes. Corning's freedom of action was short lived, however, since Corning has subsequently consented to the entry of a decree requiring royalty-free licensing of all its patents in the pressed and blown ware field. *United States v. General Electric* (D. N. J. March 7, 1946) *TRADE REG. SERV.* ¶ 57,448.

40. The statutory provision for direct appeal to the Supreme Court from a final decree in an antitrust suit instituted by the United States would appear to cover the issuance of valuation orders by the District Court under pars. 12 and 13. 32 *STAT.* 823 (1903), 36 *STAT.* 1167 (1911), 15 U. S. C. § 29 (1940). The issue has not been squarely presented before the Supreme Court, and presumably the Court would be anxious to avoid an interpretation which would flood its docket with valuation cases, but if the Court holds that court orders setting royalties and sales prices are not "final decrees," there will be no basis for appeal to the Circuit Courts or the Supreme Court.

In the past the Supreme Court has adopted a liberal interpretation of the term "final decree," and has held a judgment dismissing a petition of the Interstate Commerce Commission to compel production of books to be a final decree, *Interstate Commerce Commission v. Baird*, 194 U. S. 25 (1904), as well as orders of the District Court refusing intervention, *United States v. California Coöperative Canneries*, 279 U. S. 553 (1929); *Missouri-Kansas Pipeline Co. v. United States*, 312 U. S. 502 (1941). On the other hand the Supreme Court has held not to be a final decree an order directing witnesses to answer questions and to produce books, *Alexander v. United States*, 201 U. S. 117 (1906), a preliminary injunction

Further variations in the royalty schedule are to be allowed in accordance with the intent of the licensee either to use the machine embodying the patents himself or to sell the machinery to others. Manufacturers of containers, for example, would pay a different royalty for the privilege of employing patents on glass machinery, than would manufacturers of machinery who wish to sell patented machinery to container manufacturers. Still another variable is introduced by the provision that royalties may be adjusted to include the cost of manufacture of the machinery and the maintenance services furnished by the licensor, as well as development work or other consideration furnished by the licensee.

The decree eliminates the need for an immediate review of the existing royalty structure by approving the schedule worked out between Hartford and the non-defendant licensees,<sup>41</sup> although such a solution may be only temporary since provision is made whereby the Department, the defendants, or any licensee or applicant may petition the court for the determination or redetermination of the reasonableness of any royalty. The number of possible permutations of royalty schedules is so large that no attempt can be made to set up schedules until some applicant makes a request for a parti-

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restraining defendants from removing property from the United States, *De Beers Consolidated Mines v. United States*, 325 U. S. 212 (1945), and denial of a motion to dismiss a suit, *United States Alkali Export Ass'n v. United States*, 325 U. S. 196 (1945).

41. The non-defendant licensees, headed by Anchor-Hocking, filed an intervening complaint before the District Court after the Supreme Court decision proposing that royalties be cut by 50% and that 60% of the impounded royalties be returned to the licensees in return for covenants not to sue. The intervening complaint also proposed revised terms for the patent license agreements.

Hartford filed an instrument with the court as provided by par. 12 and 13 setting forth fees for engineering services as well as the royalty schedules previously approved. No protest having been entered against Hartford's schedule of fees for services, the District Court approved the schedule as reasonable on April 3, 1946.

Owens has decided not to fight over the patent issue, and on December 27, 1945, filed an instrument offering licenses for all purposes on all its patents at an annual royalty of \$1. Hazel-Atlas, on the other hand, filed an instrument on December 29, 1945, providing for the payment of substantial royalties for the privilege to make and use the machinery embodying its patents. Even if none of the present Hartford licensees request licenses from Hazel-Atlas for the bundle of patents embodied in the Hazel-Atlas machines, Hazel-Atlas can sue Hartford or its licensees for the payment of royalties for the use of such patents as a court may find are embodied in the Hartford machines, a legal question which has not yet been settled. If the court decides that Hartford machines embody Hazel-Atlas patents, the court will then have to determine reasonable royalties for the individual patents under par. 13 (A)(2). By discouraging cross-licensing agreements the Department may encourage infringement litigation and the payment of larger aggregate royalties.

Hartford and Lynch still have an agreement to cross-license each other, Lynch paying Hartford a royalty on each machine sold, so that a dispute over their patents will arise only if an independent machinery manufacturer attempts to produce Hartford machinery models and is sued by Lynch or vice versa. The present patent uncertainty should be a powerful deterrent to newcomers in the machinery field.

Ball has filed an instrument offering licenses under its forming machine patents for \$5000, and Corning has filed an instrument listing no patents at all.

cular combination of patents and services. It is not difficult to imagine the problems that may arise in adjusting royalties to be charged in different situations so as to prevent discrimination.

The most striking example of the administrative difficulties involved in setting royalty rates which satisfy the threefold requirement of granting Hartford an adequate return, allowing the licensee to operate effectively, and avoiding discrimination among licensees is the struggle to determine royalties to be charged by Hartford to an independent manufacturer of machinery who wishes to sell machinery in competition with machinery which is leased by Hartford. The parties could not agree on the formula to be followed, and the revised judgment provided in paragraph 13 (C) that a determination of the formula would be made at a later date.

The original Department proposal laid down the nebulous guide that the royalty "shall be fixed at some figure which will permit continuous competition between the lessor in leasing such machines and an efficient independent manufacturer in selling them" and further provided that royalties so determined shall be subject to revision upon application to the court showing that the existing rates are ineffective to permit continuous competition.<sup>42</sup> This proposal was too vague to satisfy the District Court, and hearings were held to determine a more concrete formula. Hartford suggested in opposition to the Department proposal that the purchaser of machines from independent manufacturers pay the same use royalties to Hartford as those who lease machines from Hartford, the manufacturer paying no royalty at all.<sup>43</sup> Such a scheme would insure uniformity among glass manufacturers with respect to prices paid for machinery, but the Department opposed the proposal on the ground that no independent manufacturer could sell machines under such conditions.<sup>44</sup>

The Department offered five alternate proposals,<sup>45</sup> and on April 3, 1946, the District Court adopted the alternative which had been suggested by the Department as the most desirable. The approved formulation provided that independent glass manufacturers would pay a royalty to Hartford equal to a fixed percentage of the price at which the machine was sold, until such time

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42. Brief for the United States in Support of Proposed Judgment After Mandate (Oct. 19, 1945).

43. Hartford Proposals on Paragraph 13 (C).

44. Memorandum of the United States in Reply to "Hartford's Proposals on Paragraph 13 (C)."

45. Redraft of Government's Original Proposal for Paragraph 13 (C) of Final Judgment and of the Five Alternative Proposals Heretofore Submitted (Nov. 29, 1945). In addition to the proposal to measure the royalty by a percentage of the sales price, which was accepted by the court, the Department proposed to measure royalties by the minimum annual royalties charged by Hartford for the lease of its machines, by the difference between the sales price of machines sold in the foreign market and cost of production, by the payment of average use royalties for a period of three years only, and by the payment of average use royalties for a period ranging from three to ten years depending on the share of the market then enjoyed by Hartford for the particular type of machine.

as the total production of all machines of a particular type leased by Hartford was reduced to 65%<sup>46</sup> of the total number of machines in use. When Hartford's monopoly position was thus whittled down, royalties were to be determined in accordance with the Department's original proposal. The April 3rd order directed the parties to attempt to reach a settlement as to the percentage figures to be charged; when no settlement was reached the court issued an order on May 17 appointing a special master to take testimony and fix an appropriate schedule. The latter order provided an interim schedule of royalties, payable in a lump sum, ranging as high as \$18,000 for the Hartford feeder.<sup>47</sup>

It is not difficult to foresee some of the difficulties that may arise in applying the formula. In the first place, the problem of determining what constitutes a machine of "substantially similar type" may prove difficult in determining when Hartford's monopoly position falls below 65% on any type of machine so as to bring into play a new method for computing royalties. A more immediate problem is that of setting the flat percentage royalty at such a figure which will allow an independent machinery manufacturer to sell machines, which will assure Hartford of sufficient royalty income to continue its research program, and which will result in a total price for the machinery to the glassware manufacturer which is not too favorable in comparison with the price the glassware manufacturer would have to pay for the same machinery through use royalties. If the sales price of machinery offered by independents is too favorable, Hartford licensees may be expected to initiate action to reduce use royalties payable to Hartford still further in order that their competitive position with long term Hartford leases will not be too disadvantageous as compared to new producers.

The essence of the problem is that in determining a policy which will insure competition in the glass machinery industry it is essential to take into account the repercussion on the next higher level, the container manufacturers who use the machinery.<sup>48</sup>

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46. The figure 65% was assigned in accordance with the language of Judge Learned Hand in *United States v. Aluminum Co. of America*, 148 F. (2d) 416, 424 (C. C. A. 2nd, 1945) where it is said that it is "doubtful" whether Alcoa could be said to have a monopoly of the aluminum ingot market if it controlled 64% of the supply. The Department rounded off the figure to 65%.

47. The special master had not submitted his report as of August 13, 1946. Other royalties provided by the interim schedule are \$2000 and \$1400 per finishing mold for Hartford forming machines, \$2400 for lehrs, and \$500 for stackers. The remaining defendants agreed on tentative percentage figures of the sales price as royalties which ranged from 45% for one type of Lynch forming machine, to 15 and 10% for Hazel-Atlas machinery. Owens agreed to accept a nominal royalty of \$1.00.

48. Judge Kloeb has shown a lively appreciation of the difficulties involved. "Perhaps the Higher Court did not fully appreciate the extent of the problem that it was referring to this Court to solve when it ordered that Hartford should be required to license the patents involved for manufacture, use or sale on reasonable terms." Opinion of April 3, 1946, TRADE REG. SERV. ¶ 57,480.

The negotiations involving the formulation of paragraph 13 (C) are suggestive of the delays that are involved in arriving at decisions as to royalty rates. Although the decree of October 31 provided that a final formulation of paragraph 13 (C) would be entered within 30 days, more than five months elapsed before the method of assessing royalties was decided on, and hearings before the special master have already consumed four months without reaching a decision.

Although the chief administrative burden laid on the court is the determination of royalty and sales price schedules, various other provisions require subsequent administrative determinations by the court. Thus any party who claims that his contract with any of the defendants embodies "restrictive or discriminatory provisions inconsistent with the terms of this judgment" may petition the court (after giving notice to the Attorney-General and all interested parties) for reformation of the contract;<sup>49</sup> since there are very broad prohibitions against discrimination among licensees, the court may find itself engaged in settling the types of problems with respect to discrimination which have bedeviled the Federal Trade Commission in the interpretation of the Clayton Act. As previously noted, other provisions of the decree prohibit the defendants from acquiring control over the business or assets of any competing firm unless such acquisition is approved by the court,<sup>50</sup> and require the court to set a fair price at which Ball and Lynch are to offer for sale plants that they had previously purchased.<sup>51</sup>

The decree appears to make ample provision for the furnishing of information to the Department. Paragraph 20 provides that for ten years following the entry of the judgment all agreements between the corporate defendants "relating to patents, trade practices, volume or methods of production, or trade relations and to the subject-matter of this judgment" shall be filed with the Attorney-General fifteen days before being closed; if the Attorney-General files an objection within fifteen days, the contract shall not become effective until approved by the court. In view of the inclusive nature of the classification, it appears that the Antitrust Division will be able to keep itself informed of future developments and will retain an effective veto power.

Further provision for discovery by the Department is contained in paragraph 39 which follows the formulation first approved by the Supreme Court in *United States v. Bausch & Lomb Optical Co.*<sup>52</sup> Subject to any legally recognized privilege, representatives of the Department are allowed access to "all books, ledgers, accounts, correspondence, memoranda, and other records . . . relating to any matters contained in this judgment," and to interview

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49. Par. 18(k) (printed in appendix to this comment).

50. Par. 25(B).

51. Par. 29, 34.

52. 321 U. S. 707 (1944). The original decree contained a provision requiring the defendants to submit "reports" from time to time as the Department of Justice might indicate; the provision was stricken by the Supreme Court because of vagueness.

officers and employees of the defendant corporation. The precise effect of such a provision is doubtful. Since the reservation of jurisdiction by the court implies the power to issue subpoenas to determine the presence of violations, and since the effect of the quoted provisions is simply to allow the issuance of subpoenas for that purpose, it would appear that the quoted provisions could easily be inferred without being spelled out in terms. As a practical matter, the Department has had no difficulty in looking at the records that it has wished to examine, and there appears to be little vitality left in the doctrine that the Department may not make an investigation of very general classes of records.<sup>53</sup>

### III. THE FUTURE ROLE OF HARTFORD

The impact of the decree has been more severe upon Hartford than on any of the other defendants. Stock market quotations reflect how inconsequential the decree has been in reducing the prospective earnings of Lynch and the glass container manufacturers. Owens, Hazel-Atlas, Thatcher, and Lynch stock prices have risen considerably higher than the average of industrial stocks; Hartford stock fell to a low level when the initial decree was issued, but has since made an appreciable recovery.<sup>54</sup>

The container manufacturers will be injured to the extent of giving up monopolistic profits only if the decree is successful in encouraging established independents to produce types of glassware which they were not previously

53. The precise legal effect of the discovery provision quoted, which is a standard feature in current antitrust decrees, has apparently not been tested. It would seem that if the defendants do not comply with a Department request, the Department must apply to the court for a subpoena, and in view of the continuing jurisdiction of the court a subpoena could be issued to compel the production of books and papers in the absence of a specific provision allowing for such action.

The effect of the discovery provision may be to give the Antitrust Division the same powers possessed by most administrative agencies. The restrictions imposed by cases such as *Federal Trade Commission v. American Tobacco Co.*, 264 U. S. 298 (1924) have been virtually overruled by such current decisions as *Oklahoma Press Pub. Co. v. Walling*, 66 Sup. Ct. 494 (U. S. 1946).

	Dec. 31, 1938	Dec. 31, 1942	Dec. 30, 1944	Aug. 29, 1946
Owens	70 $\frac{7}{8}$	57 $\frac{5}{8}$	58	81 $\frac{1}{4}$
Hazel-Atlas	107 $\frac{3}{4}$	94 $\frac{1}{2}$	111	175
Thatcher	19 $\frac{7}{8}$	6	18 $\frac{1}{4}$	37 $\frac{1}{2}$
Lynch	33 $\frac{3}{4}$ *	19	33	18 $\frac{1}{2}$
Hartford	46-50	9-14	15-	30-33
Anchor-Hocking	20 $\frac{1}{8}$	15 $\frac{1}{8}$	24 $\frac{1}{2}$	49 $\frac{1}{2}$
25 industrials	191.26	144.23	176.60	217.93

\*last previous quotation.

†after 2 $\frac{1}{2}$ -1 stock split up. Comparable figure would be 45. Owens, Hazel-Atlas, Thatcher, Anchor-Hocking quoted on New York Stock Exchange, Lynch on Curb Exchange, Hartford on Hartford over-the-counter market.  
25 industrials from New York Times averages.

allowed to produce, or in bringing new producers into the field.<sup>55</sup> In the milk bottle and fruit jar fields, which were formerly closely guarded by Owens, Hazel-Atlas, Lynch, and Ball, other concerns now do a substantial volume of business, and one new concern has been organized in the container field.<sup>56</sup> The demand for glass containers has been very high throughout the post-war period, and profits of the major companies have been at record levels; if it were not for the difficulty of securing early delivery of glass machinery it would be expected that many other concerns might seek to enter the field.

As a result of the large demand for glass machinery and the high level of glass production, Hartford has been able to operate profitably despite the 60% cut in its royalty rates. The price of Lynch forming machinery has not been affected by the decree, and the large volume of business has increased the level of Lynch's profits.

The entrenched position which Hartford and Lynch have enjoyed in supplying machinery to independents will be changed only if new concerns attempt to enter the machinery field. In view of the fact that the royalty to be paid for the privilege of making and selling machinery has not been determined, it is not surprising that new concerns have been hesitant to enter the field, although as discussed subsequently, there may be some question whether new concerns would be attracted to the machinery field in any case. Yet it is only such new concerns that may be expected to invoke the administrative machinery of the decree for the determination of royalties on licenses for individual patents.<sup>57</sup> The terms of the settlement imposed by the decree are so favorable to the independent container manufacturers that there is little likelihood that they will initiate proceedings under the decree to change the terms of licensing.

The Department of Justice has been anxious to do away with the dependence of all but the two largest container manufacturers upon Hartford, and apparently envisages a situation in which a number of new firms enter the business of manufacturing machinery and in which the independents do

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55. As indicated by the stock quotations, the profits of the container manufacturers are at record levels at the present time. Owens and Hazel-Atlas have had consistent profit records, with unbroken dividend payments since 1907 and 1908. Although the container manufacturers competed for business during periods of idle capacity, the consistent profitability of even the smaller units in the industry would presumably have attracted newcomers if they had been free to enter. The defendants emphasized an increase of production of 55% from 1928 to 1939 and a decrease in price of 25% during the same period. Brief for Appellant Hartford-Empire Co. (Supreme Court, Oct. Term 1943) 66.

56. The Neville Island Glass Company. The company is not expected to go into production until 1947. Several optical companies and a glass company which had previously used semi-automatic machinery have placed orders with Hartford for automatic machinery.

57. As of August 13, 1946, there had been no applications for determinations of royalty on individual patents. At least three concerns besides Hartford are now manufacturing lehrs, and the Liberty Feeder Co. is making some type of gob feeder. The lehr manufacturers have been active throughout the entire period of the suit.

some research themselves. The Department apparently believes that competition in the glass container industry, as well as in the glass machinery industry, would be promoted by the breaking up of Hartford into several parts or encouraging new concerns to enter the machinery field through royalty free licensing. Such action would be consistent with previous Department policy in antitrust suits involving patents; a large number of recent consent decrees in effect nullify the patents involved,<sup>53</sup> and the Department

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58. The Department has consistently endeavored to secure consent decrees which in effect cancel the patents which have been employed for monopolistic purposes. The result may be achieved by enjoining the defendants from prosecuting infringement suits, by requiring the defendants to file a certificate with the Patent Office dedicating the patents to the public, or by requiring the defendants to issue unrestricted licenses royalty-free. In no contested case to date has the Department been able to secure such drastic relief, and in many of the negotiated cases only certain groups of patents are forfeited, or royalty free licensing is required only for a limited period.

In *United States v. Western Precipitation Corp.* (S. D. Cal. April 11, 1946), TRADE REG. SERV. ¶ 57,458, the consent decree enjoined the defendants from prosecuting infringement suits on their electrical precipitation patents.

In the following cases the consent decrees required the defendants to dedicate patents to the public: *Wisconsin Alumni Research Foundation v. Rene Douglas* (United States defendant-intervenor) (N. D. Ill. Jan 14, 1946), TRADE REG. SERV. ¶ 57,433 (plaintiff dedicated vitamin D patents a few days before issuance of consent decree); *United States v. Auditorium Conditioning Corp.* (S. D. N. Y. Dec. 28, 1945), TRADE REG. SERV. ¶ 57,428 (33 patents on air conditioning systems and equipment; patent holding company dissolved); *United States v. Rail Joint Co.* (N. D. Ill. Sept. 20, 1944), TRADE REG. SERV. ¶ 57,287 (4 patents on the process of reforming rail joint bars to original shape) (subsequent proceedings against non-consenting defendants reported at ¶ 57,469, June 10, 1946); *United States v. Aqua systems* (S. D. N. Y. Nov. 10, 1942, Dec. 9, 1942), TRADE REG. SERV. ¶ 52,880 (18 patents on the process of constructing hydraulic gasoline storage systems); *United States v. Kearney and Trecker Corp.* (N. D. Ill. Aug. 22, 1941), TRADE REG. SERV. ¶ 52,644 (combination patent on spindle-arbor connection milling machines used to fix prices on arbors).

In the following consent decrees the defendants were directed to offer licenses under their patents royalty-free: *United States v. Diamond Match Co.* (S. D. N. Y. April 9, 1946), TRADE REG. SERV. ¶ 57,456 (match production patents); *United States v. General Electric Co.* (D. N. J. March 7, 1946), TRADE REG. SERV. ¶ 57,448 (Corning Glass Works directed to offer royalty free licenses); *id.* (D. N. J. April 10, 1942), TRADE REG. SERV. ¶ 52,777 (Westinghouse directed to offer royalty free licenses under electric lamp patents conditioned upon grant of reciprocal license); *United States v. Bendix Aviation Corp.* (D. N. J. Feb. 13, 1946), TRADE REG. SERV. ¶ 57,444 (136 patents transferred to Alien Property Custodian to be licensed royalty-free; 144 patents to be licensed at reasonable royalties); *United States v. Merck & Co. Inc.* (D. N. J. Oct. 6, 1945), TRADE REG. SERV. ¶ 57,416 (58 drug patents); *Crosby Steam Gage & Valve Co. v. Manning, Maxwell & Moore, Inc.* (United States defendant-intervenor) (D. Mass. Feb. 1, 1945), TRADE REG. SERV. ¶ 57,336 (three patents on relief valves ordered to be licensed royalty free during war emergency and at reasonable royalty thereafter); *United States v. Aluminum Co. of America* (S. D. N. Y. April 15, 1942), TRADE REG. SERV. ¶ 52,776 (magnesium fabrication patents licensed royalty free if applicant gives reciprocal license; magnesium production patents licensed royalty free only during war emergency); *United States v. Standard Oil Co. (New Jersey)* (D. N. J. March 25, 1942, April 7, 1943), TRADE REG. SERV. ¶¶ 52,768, 52,927 (polymerization, hydrogenation, and catalytic cracking patents to be licensed royalty free during war emergency; at reason-

has appealed a more recent case, hoping to reverse a decree providing for compulsory licensing at a reasonable royalty.<sup>59</sup>

If the Department is successful in attracting the attention of concerns that wish to enter the glass machinery field or existing glass container concerns that are willing to upset the status quo, it would seem that the Department would have a considerable measure of authority. Although the decree does not specify that the recommendations of the Antitrust Division shall have any particular weight before the court, in view of the pressure of the court's regular judicial duties and the attitude of the court to the defendants,<sup>60</sup> it appears probable that the court would confine itself to the conventional scope of review over established administrative tribunals.<sup>61</sup> In other

able royalty thereafter); *United States v. Aerofin Corp.* (S. D. N. Y. March 1943), *TRADE REG. SERV.* ¶ 52,913.

59. *United States v. National Lead Co.*, 63 F. Supp. 513 (S. D. N. Y. 1945), *probable jurisdiction noted*, 66 Sup. Ct. 1121 (U. S. 1946). The decree ordered National Lead Co. and E. I. du Pont de Nemours to grant licenses under titanium production patents at a reasonable royalty. The Department contended that the licenses should be royalty-free.

60. Judge Kloeb characterized the conduct of the defendants as the clearest violation of the antitrust laws that had come to his attention, commented on the recalcitrance of the witnesses, and in effect reprimanded the Department for not bringing a criminal suit. *United States v. Hartford-Empire Co.*, 46 F. Supp. 541, 552-3, 606 (N. D. Ohio 1942). The court quotes the following excerpt from a letter written by H. K. Smith, chief counsel for Hartford, to counsel for Owens: "I, therefore, do not see much danger of having any of these deals upset, as set forth. If they are upset, I still believe that by that time, we will be in a better position even with such dissolution than we would be otherwise; and I can see no danger whatsoever of any criminal liability because the cases are necessarily so doubtful in the matter of law that they could never get any jury to convict and I doubt if any prosecuting officer would ever attempt any criminal action. Criminal action in cases of this sort, so far, has practically been non-existent." Although it would be difficult to challenge the accuracy of Mr. Smith's remarks, Judge Kloeb found them highly objectionable, as the following passage shows: "Here is laid bare the innermost thoughts of a man whose desire for power over an industry, and the consequent financial gains that flow therefrom, transcends any lurking respect for the laws of his country or concern for its future well-being. He passes lightly over the likelihood of a criminal prosecution—the only language, perhaps, that he could understand. His judgment in this regard has proved to be correct. This court has not been apprised of the reason for failure of criminal prosecution. This unanswered question rests on the doorstep of the Department of Justice." *Id.* at 606.

Compare the comment of Marcus, *supra* note 11, at 42, n. 166: "The writer believes that much of the evidence introduced in the *Hartford-Empire* case was not necessary to secure a decision of violation of the Sherman Act, but he is convinced that the breadth of the judgment rests largely upon the colorful supplementary evidence which could hardly fail to evoke a psychological reaction that drastic wrongs required drastic relief."

61. The consent decree entered in the case of *United States v. Standard Oil Co.* (New Jersey) (D. N. J. March 25, 1942), *TRADE REG. SERV.* ¶ 52,768, directs Standard "to issue the license or sublicense applied for in a form approved by the Attorney General . . . and subject to review and modification by this court. . . ." thus providing that the court is limited to reviewing the findings of the Antitrust Division. The usual provision is to require the court to make the determination in the first instance, but it may be questioned whether the difference in wording will lead to a different result. Despite the fact that the Antitrust Division is not a statutory administrative body and appears in the case only as a party

words, if the Antitrust Division carries out a vigorous administrative policy and is willing to bear the burden of making detailed investigations and submitting recommendations, the Division may to a large extent determine royalties and set licensing terms.

However clear the Department's authority may be, there is some question whether the limited resources of the Antitrust Division will permit effective enforcement of the decree. The two attorneys principally active in the suit are no longer with the Division, and there are indications that the Division may not relish the routine administrative responsibility which would be required for proper enforcement.<sup>62</sup>

There appears to be considerable doubt, therefore, as to whether the Department will succeed in its initial objective of challenging Hartford's dominance in the machinery field. It may be questioned, furthermore, whether success in that objective would facilitate competition in the glass container industry. The importance of careful economic analysis in drawing up an effective antitrust policy is well illustrated in the relationship of Hartford to the glass container industry.

The Department's case was built on the theory that Hartford was the principal defendant. As a matter of law, Hartford was perhaps the most guilty party, as it was Hartford that was chiefly responsible for the aggressive campaign to secure patent control, and it was correspondence from Hartford's files that was the most indiscreet in stating the objective of the patent pool. While it is true that all defendants had a common aim of securing joint patent control, the purposes to which the control should be put were not in accord.<sup>63</sup> Hartford would maximize its profits by encouraging

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plaintiff, the same policy considerations that underlie the limitation of judicial review over administrative findings are applicable in the present instance.

62. The issue of how much administrative responsibility should be assigned to the Antitrust Division is discussed briefly by Marcus, *supra* note 11, at 53. He points out that neither the Antitrust Division nor the courts are at present geared to assume the administrative burden of enforcing an effective decree, and suggests the possibility that the Federal Trade Commission should be given the responsibility. See also note 70 *infra*.

63. Some of the conflicting interests may be briefly analyzed. Under any given royalty schedule, Hartford and Lynch would desire to increase production as much as possible, whereas the other defendants would desire to exclude new concerns from the industry and to restrict the production of those already in. In setting the royalty schedule Owens, Hazel-Atlas and Hartford would desire to set royalties so as to maximize Hartford's income in which they all shared; Owens might desire to set royalties even higher so as to favor the suction process on which Owens had a monopoly. Ball and Thatcher, on the other hand, would prefer to have royalties set low. With respect to forming machine royalties, Hartford's interest lay in setting the royalty sufficiently low so that it could lease forming machines in competition with those sold by Lynch.

Another conflict of interest lay in the field prescribed for each company. Corning was vitally interested in protecting itself against competition in the pressed and blown ware field (a result which Corning's control of Hartford made easy of achievement), and Ball and Thatcher were induced to accept licenses largely because of the protection that was promised them in the fruit jar and milk bottle fields. The division of fields was of no direct concern to Hartford and Lynch.

maximum production. The actual restrictive policy pursued by Hartford may be explained by the control which Corning exercised over Hartford and the strong patent position of Owens and Hazel-Atlas. Corning exercised its control so as to shut off competition in the pressed and blown ware field, and the container manufacturers insisted on a restrictive policy in licensing glass machinery in return for their participation in the pool. Since Corning will be required to divest itself of its holdings in Hartford, and since the patents of all defendants are subjected to compulsory licensing, it would appear that Hartford would now be free to pursue a policy of encouraging maximum production of glassware.

Hartford's dissolution would have little effect on Hazel-Atlas or Owens, since Hazel-Atlas makes all of its own machinery, except for forming machines, and Owens can rely on its suction process. The smaller container manufacturers, on the other hand, might be placed at a serious disadvantage in competition with Owens and Hazel-Atlas through inability to keep their technology up to date. Together with the severely restrictive policy which Hartford followed in the past, Hartford did provide its licensees with glass-making machinery fully the equal of machinery employed by Owens and Hazel-Atlas. The most reliable evidence of that fact is found in the statements of the independent licensees. A group of medium sized glass companies filed an *amicus* brief in the Supreme Court attacking the provision of the original decree for royalty-free licensing, on the ground that such a provision would put Hartford out of business and lessen the ability of the independents to compete with the large companies because of their superior research facilities.<sup>64</sup> The same companies attempted to introduce evidence to the same effect before the District Court, but were denied permission. The force of their argument was somewhat weakened by an opposing *amicus* brief filed by another group of independents which defended the original decree, but on the ground that it made ample provision for Hartford's

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It should also be remembered that the companies were very jealous of their patent position. Hazel-Atlas was forced to join the pool only after losing a long-drawn out series of infringement suits, and Hazel-Atlas' conduct in reopening the infringement proceedings because of Hartford's fraud does not suggest a very close community of interest between the two companies. Owens always zealously safeguarded its dominant patent position in the suction field.

As a result of the conflicting aims among the parties, the defendants followed the most expedient policy of preserving the status quo, which was the easiest to administer and safest from the point of view of antitrust prosecution. The conditions which Hartford imposed on its licensees corresponded largely to the actual position of the company in the trade and it does not appear that Hartford ever recalled a license or changed the terms without making some compensation. The proposition which Hartford made to the small companies was so favorable, at least with respect to the alternative of facing infringement litigation, that it is difficult to understand the obduracy of the three companies who refused to take licenses.

64. Brief on Behalf of Certain Medium Sized Glass Manufacturing Companies With Respect to the Remedy; Appearing by Counsel as Amicus Curiae (Supreme Court Oct. Term 1943).

continuance as a research and engineering corporation even if deprived of royalty income.<sup>65</sup>

Hartford's role as a research organization was sharply controverted by the Department, and the District Court made a finding that Hartford had hindered the development of glass technology.<sup>66</sup> The charge was based on the belief that Hartford had bought up competing patents and had then suppressed them.<sup>67</sup> An important factor to consider in connection with the issue of suppression is that Hartford has no vested interest in existing machinery. The licensees pay the full cost of the machine when it is first delivered, and it is the licensees, rather than Hartford, that must bear the expense of scrapping obsolescent machinery. In any case Hartford did spend large sums on research, and there is little reason to doubt the statement of the independents that they thought Hartford's services were essential to them.

In considering the possibility of the establishment of competing machinery manufacturers, it must be remembered that the expenses of research are high and the market for glass machinery limited.<sup>68</sup> A new entrant in the machinery field, whether a container manufacturer seeking to supply its own requirements or a concern seeking to sell machinery, would have to invest large sums in research before getting started, and even under favorable circumstances could not find a market for many machines.

A fresh difficulty is introduced by the requirement of the payment of a

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65. Brief on Behalf of Certain Glass Manufacturing Companies, Appearing by Counsel as Amicus Curiae, in Answer to Brief Herein of Walter A. Buck, Esq. as Amicus Curiae (Supreme Court, Oct. Term, 1943). Six non-defendant companies, representing all the non-defendant licensees, joined in an intervening complaint before the District Court upon remand proposing a settlement for the disposition of the impounded royalties and a schedule for future royalties. The complaint stressed the importance of Hartford's continuance as a research organization.

66. Finding 493. The Department entered into stipulations, however, that the machinery leased by Hartford was technically efficient and up-to-date. Record on Appeal, pp. 4467, 5329, 8595.

67. Hartford and Owens contended that such acquisitions were necessary to protect themselves from infringement suits and that the patents so acquired were not developed because other processes were more efficient. It does not appear that it would have been to the interest of either party to suppress the development of new machinery. For a discussion of the difficult issue of patent suppression and collection of citations, see WOOD, PATENTS AND ANTITRUST LAW (1942) 114-7.

68. The report of the Receiver, filed August 28, 1944, summarizes the operations of Hartford during the period Sept. 1, 1942 to June 30, 1944. During that period Hartford manufactured and leased 66 gob feeders—just 3 per month—and 54 forming machines, 66 conveyors, 59 stackers, 54 lehrs, and other types of equipment. The report states that demand for such machinery was at an unusually high level during the period because of the unusually high level of glass container production. During the period Hartford maintained a large research staff—on Sept. 1, 1942 there were 56 employees in the Research Department, 38 employees in the Development Department, and 84 employees in the Licensee Engineering, Field and Industrial Service. Salaries in the engineering departments for the period were \$826,626.14 and other engineering expenses were \$295,357.68.

reasonable royalty. If a concern wished to develop its own machinery it might have to pay royalties to three or four companies, or else face extensive litigation as to questions of patent infringement and validity. Even if the new concern admitted the validity and applicability of the patent, the determination of a reasonable royalty might be a protracted process. It was for this reason that the Department was so anxious to secure royalty-free licensing. Although it must be recognized that the requirement of a reasonable royalty will be a deterrent to new machinery manufacturers, the elimination of any payment might make it impossible for Hartford to continue and still not be sufficiently encouraging to attract new firms to enter the field.

If it is assumed that it is desirable to keep Hartford as a going concern in order to protect the competitive position of the smaller container manufacturers, it would appear that patent royalties are the most effective means of assuring sufficient income for Hartford. While it might be possible to devise a schedule of engineering charges which could be paid by independents desiring the benefits of Hartford research and maintenance, some concerns might be able to copy Hartford's inventions without paying any compensation. In any event it appears desirable to allow payments to be made periodically in accordance with the volume of production, since small concerns might be unable to pay a high sales price which would include a sum equivalent to commuted use royalties for the life of the machine.

The arguments outlined would suggest that the task of enforcing competition in the glass machinery industry is hopeless, and that the most practical way to encourage competition in the glass container industry is by allowing Hartford and Lynch to continue their virtual monopoly of machinery used by all but the two largest manufacturers. A definite conclusion could not be drawn without making a more detailed study of the characteristics of research in the glass machinery industry to determine whether independent glass container manufacturers or machinery manufacturers could conduct their own research effectively.

#### IV. ALTERNATIVE METHODS OF CONTROL

Difficulties arise in the administration of the *Hartford-Empire* decree principally because the decree attempts to prescribe a reasonable royalty for the use of patents. Such administrative difficulties are eliminated if more drastic solutions are adopted, such as forfeiture of patents which are found to have been used in violation of the antitrust laws. It may be that the Department of Justice prefers the remedy of forfeiture because of the simplicity of administration, and there is some warrant for the proposition in the cases.<sup>69</sup> The doctrine of the *Hartford-Empire* case is that a reasonable royalty may be claimed, however, and the analysis of the previous section indicates that the collection of such a royalty may promote rather than hinder competition.

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69. See discussion *infra* at p. 111-6.

Assuming that the patentee shall be entitled to some reward, and that therefore some type of administrative control is necessary, it is instructive to examine some of the alternative procedures by which such control may be exercised under the present legislative framework and to investigate what statutory modifications might be desirable. The problem is essentially one of determining which agency is best equipped to administer a program of compulsory licensing which will enforce competition without causing other undesirable results.

A number of objections may be raised against the suitability of the Antitrust Division to perform the administrative functions that are necessary to enforce the *Hartford-Empire* decree. The emphasis in the Antitrust Division has always been of necessity on successful prosecution of suits,<sup>70</sup> and there has been little occasion in the past to train personnel to perform the administrative functions of enforcement. The Department-drafted decrees in the present case are perhaps the best evidence of such emphasis; the insistence on the dissolution of Hartford appears to stem more from a desire to punish past offenses than from a detailed economic analysis of the effect of Hartford's dissolution in restoring competition.

It is not difficult to understand why the decree was written from that point of view, since it was drafted by attorneys who had spent several years in planning the strategy of a strongly contested antitrust suit. If increased appropriations are made available and the Department continues to draft decrees which set up an administrative procedure for enforcement, it may be expected that a special section of the Antitrust Division will be set up to draft and administer such decrees, and that the attorneys who conduct litigation will not have responsibility for making administrative decisions in connection with the enforcement of decrees.

Despite the objection that may be raised, there is one simple and compelling reason why the Antitrust Division and no other agency should be entrusted with the responsibility for the enforcement of antitrust decrees. No decree can do more than set up machinery, and it may be safely assumed that the vested interests in the industry will do their utmost to use that machinery to protect their position.<sup>71</sup> To set up a system of governmental sanctions and turn it over to private interests, or an agency whose policy is either neutral or favorable towards the vested interests, is to invite a repetition of the experience under the NRA. Whatever may be the merits of a system of industrial self-regulation, it can scarcely be argued that such a

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70. For a discussion of the exigencies of litigation as a limitation on the activities of the Antitrust Division, see HAMILTON and TILL, *TNEC REP., ANTITRUST IN ACTION*, Monograph 16 (1940). The conclusion is reached in Katz, *The Consent Decree in Antitrust Administration* (1940) 53 HARV. L. REV. 415 that the Antitrust Division is not the appropriate agency to attempt to rebuild industry.

71. For an account of the success which European cartels had in employing regulatory machinery for the furtherance of their own interests, see Kronstein and Leighton, *Cartel Control: A Record of Failure* (1946) 55 YALE L. J. 297.

system promotes competition. Even if an agency is found which does have a forceful policy, there is no assurance that the administrative agency and the Antitrust Division would see eye to eye on the specific applications of antitrust policy. The drafting and enforcement of decrees are so closely related that a division of responsibility between the two might lead to unfortunate results.

Perhaps the most promising alternative method is that of appointing a special master under the jurisdiction of the district court to act in an administrative capacity. It will be recalled that Judge Kloeb in the present case referred to a master the determination of percentage royalties for the privilege of selling machinery embodying Hartford patents, and that at an earlier stage Judge Kloeb appointed a receiver to assume control of Hartford who was to submit plans for the dissolution of Hartford, if he felt that course to be desirable. The receiver never had an opportunity for making such recommendations, since his only function pending appeal was to preserve that status quo, and the Supreme Court decision ordered that the receivership be terminated.<sup>72</sup>

The idea of appointing an officer of the court to supervise the enforcement of an antitrust decree appears to offer a very practical means of making the necessary administrative determinations. There is no reason why a receiver should be appointed for that purpose, however, except in a case where the break-up of the existing corporate structure is contemplated; the court could appoint a master who would be responsible for making findings as to reasonable royalties without having any responsibility for the running of the business. Such special masters would not represent a drain on the appropriations for the Antitrust Division, since the defendant companies would be required to bear the expense. The provision in the Federal Rules that the findings of a master shall be binding unless "clearly erroneous" should assure that issues once determined by the master could not normally be relitigated in the district court.<sup>73</sup>

There is very little precedent for the appointment of court officers to supervise the enforcement of a decree. On several occasions the idea of appointing a receiver was threatened as an alternative unless the defendants

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72. The lower court was apparently largely influenced in its decision to order the appointment of a receiver by the fact that Hartford made an agreement with Corning after the initiation of the suit cancelling the 1916 and 1922 cross licensing agreements. Hartford transferred three patents to Corning and promised to pay Corning \$1,125,000 and Corning agreed to pay Hartford higher royalties. Corning was anxious lest the three patents fall into unfriendly hands and be used as a bargaining weapon. The court evidently suspected the good faith of the parties and ordered the appointment of a receiver to prevent further dealings to change the situation. 46 F. Supp. 620. Hartford protested bitterly the appointment of a receiver as an unwarranted seizure of its business, but the report of the receiver indicates that it was only by virtue of his authority as an officer of the court that the licensees continued to pay royalties during the pendency of the appeal.

73. Rule 53(e)(2) FED. RULES CIV. PROC. "In an action to be tried without a jury the court shall accept the master's findings of fact unless clearly erroneous."

formulated a plan for conducting business within the permissible scope of the antitrust laws,<sup>74</sup> but the present case appears to be the first in which a receiver was actually appointed.<sup>75</sup> In two important railroad antitrust cases the court appointed a trustee to hold stocks pending disposition. There is ample precedent, however, for the employment of special masters in anti-trust suits to make the initial determination as to violation of the antitrust laws,<sup>76</sup> and there appears to be no legal objection to the employment of special masters for the determination of issues arising from the enforcement of the decree.

The choice of an appropriate master would present serious difficulties. If an industry representative is appointed, the master would be thoroughly familiar with the problems involved, but regardless of the language of the decree the master's viewpoint in making decisions would very likely be in favor of protecting the established position of existing concerns, *i.e.*, of promoting "fair" competition. A master not familiar with the industry, on the other hand, might be very slow in making decisions and incapable of weighing the effects of a decision in a particular case. It would not be wise for the Antitrust Division to abdicate its responsibility for enforcement altogether; some degree of control could be maintained by recommending to the court an appropriate appointment, by participating in the hearings before the master when the Division considered such action desirable, and

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74. *United States v. American Tobacco Co.*, 221 U. S. 106, 186 (1911); *United States v. Union Pacific R. R.*, 226 U. S. 61, 98 (1912); *United States v. Great Lakes Towing Co.*, 217 Fed. 656, 661 (N. D. Ohio 1914); *United States v. International Harvester Co.*, 214 Fed. 987, 1001 (D. Minn. 1914).

75. In a number of cases trustees have been appointed to hold stocks or intangibles which the court has ordered to be sold. *United States v. Union Pacific R. R.*, 226 U. S. 61 (1912), decree reported in SHALE, *DECREES AND JUDGMENTS IN FEDERAL ANTITRUST CASES* (1918) 217. The decree appointed the Central Trust Co. of New York as trustee to hold the shares of the Southern Pacific Co. which Union Pacific was required to sell. The decree also appointed an individual as commissioner for the court "to see to it that the letter and spirit of this plan of dissolution is carried out and is directed to report to the court from time to time." The Department also cited decrees in two contested cases and four consent decrees in which trustees were appointed to hold, vote and dispose of shares of stock which the decree required the defendants to sell. Brief for the United States on Reargument (Supreme Court Oct. Term 1944) 43-4.

The Public Utility Holding Company Act provides that the court may appoint a trustee to assume control of a company which has not complied with a dissolution order of the Securities and Exchange Commission. This power has apparently not yet been invoked. 49 STAT. 821 (1935), 15 U. S. C. § 79k (1940).

Compare *Aldred Investment Trust v. SEC*, 151 F. (2d) 254 (C. C. A. 1st, 1945), *cert. denied*, 66 Sup. Ct. 486 (U. S. 1946), in which a receiver was appointed to dissolve an investment trust, although there was no statutory authorization.

76. *Standard Oil Co. (Indiana) v. United States*, 283 U. S. 163 (1931); *United States v. Standard Oil Co. of New York*, 47 F. (2d) 288 (E. D. Mo. 1931). In *United States v. Columbia Gas & Electric Corp.*, 36 F. Supp. 488 (D. Del. 1941), the Department requested that a consent decree be modified because of changed conditions and the court appointed a master to draft a new decree.

being allowed to petition the court for the appointment of a new master. It should not be too difficult for the Antitrust Division to maintain a general supervision over each master's activities without being required to scrutinize the findings of the master too closely in each case.

Another possible means of enforcement would be to invoke the statutory authority of the Federal Trade Commission granted by the Federal Trade Commission Act.<sup>77</sup> Section 7 provides that a district court may refer an antitrust suit to the Commission as a master in chancery to "ascertain and report" an appropriate form of decree, although the court is not bound in any way by such a report.<sup>78</sup> Section 6(c) provides that the Federal Trade Commission may on its own initiative investigate the manner in which an antitrust decree is being carried out, and that upon application by the Attorney-General it shall be its duty to make such an investigation. The Commission is not given any enforcement powers under the section, however; the only action that may be taken is to transmit findings and recommendations to the Attorney-General and to make its report public. A liberal interpretation of the sections quoted should authorize the Department of Justice to rely on the Federal Trade Commission to make findings as to reasonable royalties and sales prices under the *Hartford-Empire* decree, which findings would be the basis for subsequent findings by the court at the request of the Department. Close cooperation between the Commission, Department, and the particular district court would be required for the successful functioning of such a scheme.

Such cooperation has not been forthcoming in the past, as is indicated by the fact that the sections quoted have been very seldom invoked.<sup>79</sup> Judge Learned Hand, then a district judge, referred the *Corn Products Refining*<sup>80</sup> dissolution case to the Commission for the drafting of a decree, but the Antitrust Division was apparently unwilling to have the Commission participate and the decree as entered was not drafted by the Commission. It does not appear that the Commission has ever drafted a decree at the request of a court. Relations between the Commission and the Antitrust Division, moreover, have never been very close,<sup>81</sup> and the Commission has in genera

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77. 38 STAT. 721 (1914), 15 U. S. C. §§ 46-7 (1940).

78. In view of the provisions of Rule 53(e)(2), *supra* note 72, the findings of the Commission might be held to be binding unless "clearly erroneous" to the same degree as any other special master appointed by the court.

79. See JONES, *THE TRUST PROBLEM IN THE UNITED STATES* (1921) 347-8. By May, 1920, the Attorney General had called on the Federal Trade Commission twice for recommendations under § 6(e) which authorizes the Attorney General to ask for recommendations before an antitrust suit has been started. See HANDLER, *TNEC REP., CONSTRUCTION AND ENFORCEMENT OF THE FEDERAL ANTITRUST LAWS*, Monograph 38 (1941) 84.

80. *United States v. Corn Products Refining Co.*, 234 Fed. 964 (S. D. N. Y. 1916) *appeal dismissed on motion of appellant* 249 U. S. 621 (1919).

81. One of the most complete accounts of relations between the two agencies is given in BLAISDELL, *THE FEDERAL TRADE COMMISSION* (1932) c. 7, which describes the extent of cooperation in the meat packing, tobacco, and aluminum industries. Reference is made to

refrained from attempting to enforce the Sherman Act, even though violations of the Act have been classified as "unfair competition" so as to give the Commission authority to issue an order to cease and desist.<sup>82</sup> In the few cases in which the Commission and the Antitrust Division have tried to work together, there has been disagreement as to the policy to be followed. On several occasions the Commission has investigated the working of an anti-trust decree and has made recommendations to the Department of Justice both for modification of the decree and for prosecution of violations, but so far as appears, the recommendations were not followed by the Department.<sup>83</sup>

Although the Commission is beginning to show a new aggressiveness in its approach,<sup>84</sup> it would not appear that the Commission is the proper enforcement agency for antitrust decrees. The Commission and the Antitrust Division have been unable to work closely together in the past, and the division of authority makes policy coordination very cumbersome. An added difficulty is that the Commission has had no experience in fixing prices, and at least in patent cases price-fixing is the crucial administrative problem.

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the "hazy and uncertain" relationship between the two agencies in KEEZER and MAY, *THE PUBLIC CONTROL OF BUSINESS* (1930) at 35-8. The authors state that in the opinion of "workers in the Antitrust Division" 90% of investigations by the Division are conducted independently of the Commission, and cite cases in which the Commission and the Division were independently prosecuting cases of resale price maintenance at the same time. The authors also cite figures in the 1924 budget for the Commission showing that out of a total appropriation of \$920,963.36 a total of \$368.48 was appropriated under the heading "Services Rendered to Department of Justice." See also Watkins and Myers, *The Federal Trade Commission and the Antitrust Laws* in HANDLER (ed.), *THE FEDERAL ANTITRUST LAWS, A SYMPOSIUM* (1932), and for a contrary view Montague, *The Commission's Jurisdiction Over Practices in Restraint of Trade: A Large-Scale Method of Mass Enforcement of the Antitrust Laws* (1940) 8 GEO. WASH. L. REV. 365. In *United States Alkali Export Ass'n v. United States*, 325 U. S. 196 (1945), the Department prosecuted an export trade association without waiting for the Commission to investigate the association, although § 5 of the Webb-Pomerene Act provided that the Commission should investigate the actions of such associations, advise them of illegal actions, and report findings and recommendations to the Attorney General in case of non-compliance. 40 STAT. 517 (1918), 15 U. S. C. § 65 (1940).

Another instance of lack of coordination between the two agencies is that the Antitrust Division in its current suit against General Electric and Westinghouse charged that agreements as to foreign trade were illegal which had been previously approved by the Commission. See *NEW YORK TIMES*, Oct. 27, 1946, p. 4, col. 6-7.

82. *Federal Trade Commission v. Beech-Nut Packing Co.*, 257 U. S. 441 (1922).

83. In the meat packing, tobacco, and aluminum industries the Department and the Commission both participated actively, but their actions there not coordinated. BLAISDELL, *THE FEDERAL TRADE COMMISSION* (1932) 192-3, 199-201, 240-2. In the agricultural machinery and lumber industries the two agencies worked together closely but the findings of the Commission could not be used by the Department as evidence. *Id.* at 161. *United States v. International Harvester Co.*, 274 U. S. 693 (1927).

84. The Commission has recently been successful in establishing the illegality of the basing point system. *Corn Products Refining Co. v. FTC*, 324 U. S. 726 (1945); *FTC v. A. E. Staley Manufacturing Co.*, 324 U. S. 746 (1945), discussed in Comment (1946) 55 *YALE L. J.* 558.

A third possible way of administering the decree would be through arbitration. That method was introduced as an experiment in the *Paramount*<sup>85</sup> consent decree to protect independent exhibitors from monopolistic action by distributors. The Department was not satisfied with the effectiveness of arbitration in that particular case, and complaints having been raised with regard to the inadequate relief afforded, the long delay in making decisions, and the escape clauses provided in the decree, has secured a more stringent decree.<sup>86</sup> Arbitration might be better adapted to deciding the type of valuation problems that arise from a system of compulsory licensing, but here again the Department would have difficulty in pursuing a consistent policy. As with the appointment of special masters, the Department could assure some measure of control by representation in the arbitration hearings, careful draftsmanship of the decree, and careful scrutiny of the individuals appointed as arbitrators. Since the decisions of the arbitrator would not normally be subject to judicial review, there is even greater danger than with the appointment of a special master that arbitration machinery could be employed to advance the interests of the dominant firms.<sup>87</sup>

It may be concluded that none of the three suggested alternatives appears very promising. In the case of special masters and arbitration tribunals the machinery might well be turned to the advantage of the vested interests, and would be difficult for the Department to supervise; in the case of the Federal Trade Commission the difficulty of coordinating policy appears to be insuperable.

The foregoing discussion has been concerned with techniques of enforcement of antitrust decrees in order to compel compulsory licensing. An antitrust decree in a suit initiated by the Department is not the only instrument for achieving that purpose, however; compulsory licensing may be achieved either by a slight modification of existing judicial interpretation of the patent and antitrust laws or by changes in the patent laws. Let us examine briefly those two alternate possibilities.

The traditional remedy in an infringement suit has been an injunction

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85. *United States v. Paramount Pictures Inc.* (S. D. N. Y. Nov. 20, 1940), TRADE REG. SERV. ¶ 25,558. On June 11, 1946, a special three-judge court granted the Department's request for the entry of a new decree which eliminated block booking, forbade joint ownership of theatres, and provided for competitive bidding among exhibitors. The arbitration machinery for determining the reasonableness of clearance restrictions was retained. 69 U. S. P. Q. 573.

86. See Sturges, *Operation of the Consent Decree in the Motion Picture Industry* (1942) 51 YALE L. J. 1175; Warburg, *Administration of the Motion Picture Arbitration System* (1941) 5 ARB. J. 42; *First Quarterly Report on the Motion Picture Arbitration Tribunals*, *id.* at 185; *Second and Third Quarterly Report*, *id.* at 286; *Fourth Quarterly Report* (1942) 6 *id.* at 153; *Report of the Department of Justice on the Operation of the Consent Decree* (1942) 4 MOTION PICTURE L. REV. No. 10, p. 3.

87. See Kronstein, *Business Arbitration-Instrument of Private Government* (1944) 54 YALE L. J. 36 and Kronstein and Leighton, *Cartel Control: A Record of Failure* (1946) 55 YALE L. J. 297.

against future infringement and an accounting for profits.<sup>88</sup> It is only in the event that profits of the infringer or damages to the patentee cannot be established that the courts have awarded damages equivalent to a reasonable royalty.<sup>89</sup> The decisions in *Morton Salt Co. v. G. S. Suppiger Co.*<sup>90</sup> and *Mercoïd Corp. v. Minneapolis-Honeywell Regulator Co.*<sup>91</sup> effected a revolutionary change, however, in the remedies afforded a patentee against an infringer.<sup>92</sup> In the first case the Supreme Court unanimously held that the patentee was not entitled to the equitable relief of injunction against direct infringement since the license for the use of a patented salt tablet depositing machine stipulated that unpatented salt tablets to be used with the machine be purchased from the licensor. The case was decided on summary judgment, and the patentee was not allowed to introduce evidence that the restrictions in the patent license were reasonable and therefore not in violation of the antitrust laws. The court did not rest its decision on the finding that the antitrust laws had been violated, although it clearly invoked the underlying policy of the antitrust laws in saying that the restrictions were against "public policy."<sup>93</sup> Thus injunctive relief against infringement was denied

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88. 29 STAT. 694 (1897) as amended by 42 STAT. 392 (1922), 35 U. S. C. § 70 (1940) as amended by Pub. L. 587, 79th Cong., 2nd Sess. (Aug. 1, 1946). 3 WALKER ON PATENTS (Deller's ed. 1937) §§ 538, 635, 821. In the original patent statute passed in 1793 the only remedy a patentee had against an infringer was an action at law for damages. The Act of 1870 gave the federal courts jurisdiction to issue injunctions against future infringement and in the same suit in equity to decree an accounting for profits and to assess in addition damages suffered by the patentee. In 1922 the section was further amended by adding the provision that where damages suffered by the patentee or profits made by the infringer "are not susceptible of calculation and determination with reasonable certainty" the court may receive opinion or expert testimony to determine a reasonable sum to be paid as profits or general damages. H. R. 5311, enacted as Pub. L. No. 587, 79th Cong., 2nd Sess. (Aug. 1, 1946) provides for a further amendment by abolishing an accounting for profits altogether, and providing that after a decree of infringement has been entered, the complainant shall be entitled to recover general damages for the infringement not less than a reasonable royalty. The Act does not disturb the remedy of injunction against subsequent infringement. The Act was favored by all groups testifying before the House Committee on Patents because of the long drawn out litigation that is necessary in order to settle an accounting for profits. *Hearing before Committee on Patents on H. R. 5231*, 79th Cong., 2nd Sess. (1946). H. R. 5231 was amended slightly and reintroduced as H. R. 5311.

89. See note 97 *infra*.

90. 314 U. S. 488 (1942), and companion case, *B. B. Chemical Co. v. Ellis*, 314 U. S. 495 (1942).

91. 320 U. S. 680 (1944) and companion case, *Mercoïd Corp. v. Mid-Continent Investment Co.*, 320 U. S. 661 (1944).

92. The traditional doctrine had been that violation of the antitrust laws was not a valid defense in a patent infringement suit. 2 WALKER ON PATENTS § 409.

93. By "public policy" the Court appears to refer both to the policy of the patent laws to promote invention and the antitrust laws to prohibit monopoly. "The grant to the inventor of the special privilege of a patent monopoly carries out a public policy adopted by the Constitution and laws of the United States, 'to promote the Progress of Science and useful Arts. . . .' But the public policy which includes inventions within the granted monopoly excludes from it all that is not embraced in the invention. It equally forbids the

even though the infringer did not introduce sufficient evidence to sustain a finding that the antitrust laws had been violated.

In the second case injunctive relief was likewise denied, although the doctrinal underpinning is far from clear.<sup>94</sup> The patentee held a combination patent on an automatic heating device, the constituent parts of which were no longer patented. The patentee sold the constituent elements and attempted to enjoin a rival from selling one of the constituent parts. Mr. Justice Douglas stated that the patentee had violated the antitrust laws and was therefore not entitled to equitable relief under the "clean hands" doctrine; four justices concurred specially on the authority of the *Morton Salt* case, apparently doing so to indicate that they did not rest their conclusion upon a finding that the antitrust laws had been violated.

In both cases the patentees requested an accounting for all profits made by the infringer and damages suffered by them, but that relief was denied by the Supreme Court without discussion. Since damages may be requested in patent infringement suits both at "law" and in "equity," it would appear that the patentees could have argued that the doctrine of clean hands did not apply to legal relief, and they were therefore entitled to damages at law. The language of the opinions does not suggest that the argument would have been successful, but it is not formally inconsistent with what appears to be the doctrine of those cases.

The doctrine of the *Mercoïd* and *Morton Salt* cases has been carried so far in more recent decisions in the lower courts that patentees might welcome the adoption of a rule which allowed damages for infringement but denied injunctive relief, as they would then be able to secure some return from patents, instead of risking dismissal of patent infringement suits. Previous attempts to force the issuance of compulsory licenses because of violation of the antitrust laws have been unavailing,<sup>95</sup> but such cases are of questionable authority at the present time.

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use of the patent to secure an exclusive right or limited monopoly not granted by the Patent Office and which it is contrary to public policy to grant." 314 U. S. 492. And in the concluding paragraph the Court states: "It is unnecessary to decide whether respondent has violated the Clayton Act, for we conclude that in any event the maintenance of the present suit to restrain petitioner's manufacture or sale of the alleged infringing machines is contrary to public policy and that the district court rightly dismissed the complaint for want of equity." *Id.* at 494.

The concept of "public policy" against monopoly as opposed to statutory violations of the antitrust laws appears somewhat quixotic and is illustrative of the doctrinal confusion in the field.

94. The issues in the case were considered in much greater detail in the companion case of *Mercoïd Corp. v. Mid-Continent Investment Co.*, 320 U. S. 661 (1944), in which five separate opinions were written. In that case the question was complicated by the issue of the defense of *res judicata*. For a discussion of the doctrinal difficulties in the cases see Wood, *The Tangle of Mercoïd Case Implications* (1944) 13 GEO. WASH. L. REV. 61.

95. *F. A. D. Andrea, Inc. v. Radio Corporation of America*, 88 F. (2d) 474 (C. C. A. 3d, 1937); *Radio Corporation of America v. Hygrade Sylvania Corp.*, 10 F. Supp. 879 (D. N. J. 1934). In two early cases, however, a writ of mandamus was issued to compel a

Under the current doctrine a patentee has a formidable task in establishing the validity of a patent, as a result of the strictness of the standards for patentability laid down in recent Supreme Court decisions.<sup>63</sup> Even if this hurdle is surpassed, the patentee must have led a blameless life indeed if he is to receive injunctive relief against infringement. Thus, an injunction against infringement of the Wisconsin Alumni Research Foundation's Vitamin D patents was held inappropriate because the Foundation had refused to license the patents for the irradiation of oleomargarine.<sup>67</sup> When the patentee has extracted a covenant from his licensee not to manufacture goods competing with the patented article, damages for infringement have been denied, although in a previous adjudication the patent had been held valid and infringed.<sup>68</sup> In another case an injunction against infringement was stayed until after decision in an antitrust suit against the patentee.<sup>69</sup> It has even been suggested that the use of tying clauses in a patent license invalidated the patent.<sup>100</sup> On the procedural side, it has been held that the defense of unclean hands need not be pleaded.<sup>101</sup>

The cases granting injunctive relief where the defense of unclean hands has been raised are fewer than those in which relief has been denied. It has been held that an injunction will issue where a tying clause has been eliminated.<sup>102</sup> Injunctive relief has been held appropriate where the patentee licensed a process patent on condition that an unpatented machine furnished by the patentee was used in the process, since the process patent was also licensed on some other basis.<sup>103</sup> Despite the dissenting note raised by the

telephone company to furnish telephonic service, which was forbidden under patent license agreements with Western Union. *Delaware & American Tel. & Tel. Co. v. State ex rel. Postal Telegraph-Cable Co.* 50 Fed. 677 (C. C. A. 3rd, 1892); *Missouri ex rel. Baltimore & Ohio Telegraph Co. v. Bell Telephone Co.*, 23 Fed. 539 (C. C. E. D. Mo. 1885).

96. *Marconi Wireless Telegraph Co. of America v. United States*, 320 U. S. 1 (1943); *Cuno Engineering Corp. v. Automatic Devices Corp.*, 314 U. S. 84 (1941). See Zlinkoff, *Monopoly Versus Competition: Significant Trends in Patent, Antitrust, Trademark, and Unfair Competition Suits* (1944) 53 YALE L. J. 514, 518-21; Smith, *Recent Developments in Patent Law* (1946) 44 MICH. L. REV. 899, 911-8.

97. *Vitamin Technologists, Inc. v. Wisconsin Alumni Research Foundation*, 146 F. (2d) 941 (C. C. A. 9th, 1944-5), cert. denied, 325 U. S. 876 (1945). The patents were held invalid so that an injunction could not have issued in any case.

98. *National Lockwasher Co. v. George K. Garrett Co. Inc.*, 137 F. (2d) 255 (C. C. A. 3rd, 1943). In this case only damages were at issue, not an injunction against infringement, but the court applied the reasoning of the *Morton Salt* case without noting the distinction.

99. *General Electric Co. v. Hygrade Sylvania Corp.*, 61 F. Supp. 476, 531, 539 (S. D. N. Y. 1944).

100. *Pfister v. Dyar*, 59 U. S. P. Q. 91 (S. D. Ill. 1943). The patent was held invalid on other grounds.

101. *Frank Adam Electric Co. v. Westinghouse Elect. & Mfg. Co.*, 146 F. (2d) 165 (C. C. A. 8th, 1945).

102. *Sylvania Industrial Corp. v. Visking Corp.*, 132 F. (2d) 947 (C. C. A. 4th, 1943), petition for certiorari dismissed on motion of petitioner, 319 U. S. 777 (1943).

103. *Metallizing Engineering Co., Inc. v. Metallizing Co. of America*, 62 F. Supp. 274 (S. D. N. Y. 1945). The particular ruling in the case was the denial of the defendant's mo-

latter case, a district court decision, the doctrine seems clear that any attempt by the patentee to require the use of non-patented articles in conjunction with the patent will estop the patentee from enjoining infringement, and that price-fixing and other restrictive licensing provisions will in all probability lead to the same result.<sup>104</sup>

tion to strike the allegations of contributory infringement. The motion was denied on the ground that the defendant was a direct infringer. It is difficult to believe that courts will sanction the circumvention of the *Mercoïd* rule if the patentee offers a license at a very high royalty as a hypothetical alternative for a license at no royalty but with a tying clause. Such a view was taken in *Pyrene Mfg. Co. v. Urquhart*, 71 U. S. P. Q. 55 (E. D. Pa. 1946), where the court held that a licensor was not entitled to enjoin infringement if he set a higher royalty rate if the tying clause was eliminated; the holding was not necessary, however, as the patents involved were held invalid and not infringed.

104. Additional cases which apply the *Mercoïd* doctrine to deny injunctive relief are *Standard Register Co. v. American Sales Book Co., Inc.* 148 F. (2d) 612 (C. C. A. 2nd, 1945), *cert. denied*, 66 Sup. Ct. 40 (U. S. 1945) and *Landis Machinery Co. v. Chaso Tool Co., Inc.* 141 F. (2d) 800 (C. C. A. 6th, 1944), *cert. denied*, 323 U. S. 720 (1944), both involving tying clauses. Cases in which the unclean hands defense was denied are *National Aluminate Corp. v. Permutit Co.*, 145 F. (2d) 175 (C. C. A. 8th, 1944), *cert. denied*, 324 U. S. 864 (1945); *International Carbonic Engineering Co. v. Natural Carbonic Products, Inc.*, 57 F. Supp. 248 (S. D. Cal. 1944); *Libbey-Owens-Ford Glass Co. v. Sylvania Industrial Corp.*, 64 F. Supp. 516 (S. D. N. Y. 1945), *appeal dismissed*, 154 F. (2d) 814 (C. C. A. 2nd, 1946), *cert. denied*, 66 Sup. Ct. 1353 (U. S. 1946), see Note, this issue, p. 141. The factual background in the first two cases does not indicate what type of restrictive practices were present, and the patent was held invalid in the second case. In the *Libbey-Owens-Ford* case a single patent covered both product and method claims and the defendant urged that the granting of a license royalty-free under the method claims to any one who purchased the product was improper. For a discussion of cases dealing with license restrictions, see James, *Use of Patents to Control Unpatented Materials* (1946) 28 J. PAT. OFF. SOC. 427.

In *American Optical Co. v. New Jersey Optical Co.*, 58 F. Supp. 601 (D. Mass. 1944), the court discussed the legality of license provisions requiring unpatented "fronts" to be sold with patented temples and restricting the area in which the licensee could sell. Although the action was for the collection of royalties, it was assumed that the same standards applied as in an infringement suit. The court upheld both restrictions, pointing out that the licensee was not required to buy the "fronts" from the licensor.

No cases appear to have arisen in which injunctive relief was denied because of price-fixing restrictions. Such an agreement was held to be illegal in an action for damages for breach, *Cummer-Graham Co. v. Straight Side Basket Corp.*, 142 F. (2d) 646 (C. C. A. 5th, 1944), *cert. denied*, 323 U. S. 726 (1944), and presumably the Supreme Court will rule on the question in *Edward Katzinger Co. v. Chicago Metallic Mfg. Co.*, 153 F. (2d) 149 (C. C. A. 7th, 1946), *cert. granted*, 66 Sup. Ct. 981 (U. S. 1946) although the lower court ruled only that the patent was invalid. The price-fixing issue will also arise in *MacGregor v. Westinghouse Elec. & Mfg. Co.*, 352 Pa. 443 (1945), *aff'd*, 4-4, 66 Sup. Ct. 527 (U. S. 1946), *rehearing granted*, 66 Sup. Ct. 801 (U. S. 1946), a suit in which the licensee seeks to avoid the payment of royalties because of a price-fixing requirement in the contract. The legality of patent license price restrictions in a suit by the United States under the Sherman Act will also be presented in *United States v. United States Gypsum Co.* (D. D. C. June 15, 1946) TRADE REG. SERV. ¶ 57,473 discussed in Steffen, *Invalid Patents and Price Control*, this issue at p. 1.

Other hazards which await the patentee in prosecuting an infringement suit are the possibility of intervention by the Department of Justice to insure a vigorous prosecution of the unclean hands issue and the freedom of erstwhile licensees to dispute the validity of the

There exists a definite conflict between the doctrine which denies injunctive relief when the patentee has used his patent in a manner considered by the court to be contrary to public policy and the doctrine of the *Hartford-Empire* case that in an antitrust suit patentees who have violated the antitrust laws may demand a reasonable royalty for a license. The Department would remove the inconsistency by requiring royalty-free licensing in antitrust suits. Perhaps a more desirable alternative would be to hold that a patentee may recover a reasonable royalty in a private suit against an infringer even though he may have used his patent in an improper manner. If the infringer can prove a violation of the antitrust laws and establish damages, he can counterclaim for treble damages, as was in fact done in the *Mercoïd* case.<sup>105</sup> If on the other hand he cannot establish a case strong enough under the antitrust laws to recover treble damages, but can show sufficient misuse of the patent to deny the patentee the relief of injunction, the infringer could be assessed a reasonable royalty as damages. In other words, a patentee who had used his patent in some way which the court considered improper would be denied the right to exclude others from using the patent, but would be entitled to be paid for such use. Such a result may be rationalized in terms of "legal" versus "equitable" remedies.

According to this reasoning, an infringer could be enjoined and forced to account for profits, or could be required to pay a reasonable royalty, or could recover the difference between three times the damages that he had suffered and a reasonable royalty, the result being predicated upon his production of no evidence, some evidence, or conclusive evidence that the patentee had employed the patent in an improper manner. The line of demarcation between the three classes would doubtless be difficult to draw but it may be inferred that in the case of industries where patents play an important role, it would be comparatively easy to introduce enough evidence of the use of patents to monopolize unpatented commodities or the practice of restrictive licensing to forestall the issuance of an injunction, but very difficult to introduce enough evidence to support a counterclaim for treble damages.

Such a formula might cast a considerable burden on the courts in determining reasonable royalties, although most disputes could presumably be settled by negotiation. Such determinations have been frequently made

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patent. *Crosby Steam Gage & Valve Co. v. Manning, Maxwell & Moore, Inc.*, 59 U. S. P. Q. 189 (D. Mass. 1943) (on motion of the United States to intervene); *Sola Electric Co. v. Jefferson Elect. Co.*, 317 U. S. 173 (1942).

Perhaps the most revolutionary application of the underlying rationale of the *Mercoïd* cases is the denial of specific performance of a license provision to assign improvement patents made by the licensee, *Stokes & Smith Co. v. Transparent-Wrap Machine Corp.*, 156 F. (2d) 198 (C. C. A. 2nd, 1946), cert. granted 15 U. S. L. WEEK. 3145 (U. S. 1946).

105. Upon remand the District Court in *Mercoïd Corp. v. Minneapolis-Honeywell Regulator Co.* entered a decree, apparently without hearing additional testimony, adjudging that Minneapolis-Honeywell had violated the antitrust laws and appointing a special master to determine the amount of damages suffered by Mercoïd. An appeal from the decree was dismissed, 142 F. (2d) 549 (C. C. A. 7th, 1944).

under existing patent laws.<sup>106</sup> Where royalties had been previously established, existing royalties could be used as a standard; in other cases the courts would have to resort to the same type of arbitrary procedure previously employed in cases where reasonable royalties were determined. The usual verbal formula has been to find what sum a "prudent" licensee would pay, without relation to the investment of the patentee in the patent.

Despite the difficulty of judicial valuation in such cases, a compensating advantage in allowing such determinations to be made by the courts is that patents would be made available without the necessity of the Department's bringing an antitrust suit. Since the Antitrust Division cannot effectively police the entire patent field, both approaches could be used concurrently to good effect, the Department reserving its efforts for those industries whose litigation capabilities would overawe small concerns. In order to make the device of private suits fully effective, the courts should be willing to allow a declaratory judgment to determine a reasonable royalty in advance, as a person desirous of using the patent might be hesitant to take the risk of paying any royalty that might be assessed or of possibly being enjoined from future use.

A last alternative for making patents available is that of statutory compulsory licensing. Compulsory licensing is provided for in the patent laws of the principal foreign countries,<sup>107</sup> and a large number of bills have been introduced in Congress to provide for compulsory licensing under various conditions.<sup>108</sup> Strenuous opposition has been voiced by virtually all estab-

106. 3 WALKER ON PATENTS § 833; AMDUR, PATENT LAW AND PRACTICE (1935) 1003-10. Even before the 1922 amendment permitting courts to take expert and opinion evidence to compute a "reasonable sum" as general damages, the courts had awarded a reasonable royalty in cases where profits and damages were both unascertained. *Dowagiac Manufacturing Co. v. Minnesota Moline Plow Co.*, 235 U. S. 641 (1915). The effect of the amendment was discussed in *Egry Register Co. v. Standard Register Co.*, 23 F. (2d) 438 (C. C. A. 6th, 1928) where it was said that the statute "creates and applies retrospectively a compulsory license" and therefore once a reasonable royalty was paid there was no issue of contributory infringement during the period preceding the litigation. Royalties in such cases have been measured by a percentage of the selling price of the article, of net cost, of net profit, or by a flat sum per article. A full discussion of the alternate standards is given in *Activated Sludge, Inc. v. Sanitary District of Chicago*, 64 F. Supp. 25 (N. D. Ill. 1946). *Activated Sludge* was awarded \$950,000 as a reasonable royalty for twenty years of infringement.

107. Wyss and Brainard, *Compulsory Licensing of Patents* (1938) 6 GEO. WASH. L. REV. 499; von Gehr, *Survey of the Principal National Patent Systems* (1936) 1 JOHN MARSHALL L. Q. 110, 334.

108. At least 28 bills have been introduced, the first as early as 1877, appearing with great frequency from 1908 until 1943. Several citations are listed in the Supreme Court opinion at 323 U. S. 417, n. 18, and additional citations in Joint Brief for Appellants on Re-argument (Supreme Court Sept. 4, 1944) at 108-9. Additional citations may be found in REPORT OF THE AMERICAN PATENT LAW ASSOCIATION OPPOSING THE McFARLANE BILL H. R. 9259 (1938), citing a report of the Subcommittee of the American Bar Association dated July 15-6, 1935. The pamphlet gives the texts of the McFarlane Bills, H. R. 9259 and 10068, 75th Cong., 3rd Sess. (1938), 7 and the Stanley Bill, S. 3410, 67th Cong., 2nd Sess.

lished interests and none of the bills have been enacted.<sup>109</sup> Recent judicial decisions have virtually eliminated the pressure for legislation, and the possibility of the enactment of any compulsory licensing legislation is remote.<sup>110</sup>

Many of the compulsory licensing bills that have been introduced would be largely ineffective in the type of situation presented in the *Hartford-Empire* case, since they are addressed to the issue of unworked or suppressed patents.<sup>111</sup> The principal complaint in the present case was not that the patents were not being worked, but that they were licensed only to a selected group and upon severely limited conditions. A law which required only that a license must be granted if the patentee did not use the patent himself or license it to others, would have little effect in the typical industrial patent situation, particularly in view of the difficulty of proving that a patent is not being "worked."

Other bills have provided that if a patent has been used in violation of the antitrust laws or as a means of unfair competition, a compulsory license shall be granted.<sup>112</sup> If the determination is to be made by the Commissioner of

(1922) 140. A brief review of the Oldfield Bill of 1912 and the King Bills of 1929 and 1935, as well as the McFarlane and Connery Bills of 1938 is given in *FOLK, PATENTS AND INDUSTRIAL PROGRESS* (1942) 258-61. The final report of the TNEC recommended the enactment of compulsory licensing legislation of a very broad type, SEN. DOC. NO. 35, 77th Cong., 1st Sess. (1941) 36, and President Roosevelt in his message to Congress in 1938 recommended compulsory licensing. *N. Y. Times*, April 30, 1938, p. 2.

109. Almost all of the witnesses appearing before Congressional hearings have opposed the compulsory licensing bills. *Hearings before the Committee on Patents on S. 2303 and 2491, 77th Cong., 2nd Sess. (1942)*; *Hearings before the Committee on Patents (Subcommittee on Compulsory Licensing) on H. R. 9259, 9815, 75th Cong., 3rd Sess. (1938)*; *Hearings before the Committee on Patents on S. 4442, 71st Cong., 2nd Sess. (1930)*; *Hearings before the Committee on Patents on H. R. 23417, 62nd Cong., 2nd Sess. (1912)*.

For a presentation of the objections to compulsory licensing, see *FOLK, PATENTS AND INDUSTRIAL PROGRESS* (1942) 257 *et seq.*; *BARNETT, PATENT PROPERTY AND THE ANTI-MONOPOLY LAWS* (1943) 549-51; *TOULMIN, PATENTS AND THE PUBLIC INTEREST* (1939) 75-82; *REPORT OF THE AMERICAN PATENT LAW ASSOCIATION OPPOSING THE MCFARLANE BILL H. R. 9259 (1938) passim*; *Gottschalk, American Business Looks at Patent Reform* (1946) 28 *J. PAT. OFF. SOC.* 153. For favorable views see treatises and articles cited in note 11 *supra*.

110. No bills requiring compulsory licensing were introduced before the 79th Congress. In the field of atomic energy, however, compulsory licensing has been adopted over vigorous protests. Sec. 11 of the Atomic Energy Act of 1946, Pub. L. No. 585, 79th Cong., 2nd Sess. (Aug. 1, 1946) provides that a reasonable royalty shall be paid for the use of atomic energy patents which are licensed for use by the Commission and sets up a compensation board to determine a reasonable royalty, with the right of review in the Court of Appeals for the District of Columbia. The closest analogue to a compulsory licensing bill was H. R. 3462 which gives the Attorney General statutory authority to intervene in infringement suits and provides that the use of a patent to extend the monopoly renders the patent void. See also H. R. 97. Neither bill was enacted.

111. The Oldfield, Stanley, and King Bills were of this type. *FOLK, op. cit. supra* note 109, at 258-9.

112. The Connery Bill, H. R. 9815, 75th Cong., 3rd Sess. (1938), provided that where

Patents (or some newly created administrative body),<sup>113</sup> the awkward situation would arise in which the Commissioner would be required to make rulings as to whether certain types of patent agreements violated the antitrust laws. Such issues bear very little relation to conventional issues of patent litigation but are closely related to issues arising in other types of antitrust suits. It would appear undesirable to split up the responsibility for interpretation of the antitrust laws between the district courts and the Commissioner of Patents.

A statute which left the determination of the issue of violation of the antitrust laws to the courts would simply codify the rule of the *Hartford-Empire* case. Considerable care would be required in the drafting of such a statute to insure that it did not strengthen rather than weaken the patentee's position. A statute which provided merely that a court could compel the issuance of a license upon a showing that the antitrust laws had been violated might be construed as requiring the issuance of an injunction against infringement if the infringer were unable to sustain the heavy burden of proof required of the private litigant under the antitrust laws. On the other hand, an attempt to spell out the types of conduct which would be grounds for suit would be subject to the same difficulties involved in codifying the prohibitions of the Sherman Act.

Perhaps the most useful statute that could be devised would be one which provided that the determination of a reasonable royalty could be referred by the courts to the Commissioner of Patents, or some independent administrative agency. Under such a statute the court would determine whether a compulsory license should be granted, but would not be required to enter the valuation field.

#### CONCLUSION

It may be concluded that in the compulsory licensing provisions of the *Hartford-Empire* decree, the Department of Justice has at its disposal a powerful weapon to be used in future antitrust suits, both in cases involving patents and those that do not. The Department will no longer be required after the successful completion of civil antitrust proceedings to rest content with a single attempt to define in detail what the defendants must do; if the precedent of the *Hartford-Empire* case is followed, the Department will be allowed to draft a decree which provides the framework of a system of administrative regulation in which the Department is the administering or at

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patents are pooled by competitors so as to restrain commerce, the court may grant a compulsory license to a responsible complainant. S. 2730, 77th Cong., 2nd Sess. (1942), proposed to amend the Sherman Act so that unreasonable failure to grant patent licenses or the attachment of conditions to a patent license restricting the price at which an article produced under the patent may be sold is illegal.

113. The setting up of a new Patents Commission with wide powers, including that of issuing compulsory licenses, is proposed by Rice, *A Constructive Patent Law* (1939) 16 N. Y. U. L. Q. REV. 179.

least visitatorial authority. In order to carry out such a program successfully, the Department will have to train personnel who are suited to make such administrative determinations with the aim of promoting competition and not simply of punishing wrongdoers who have violated the law. The decree in the *Hartford-Empire* case does not appear to have been drawn solely from the point of view of efficient administration or with full consideration of the economic effects of the proposed decree, although the decrees in a number of cases which were entered by consent do not appear to be open to the same objection.

If the Department does not have sufficient appropriations to maintain such an enforcement staff, or if it does not wish to become too much involved in administrative responsibilities, the Department could request the court to appoint a special master who would make the necessary administrative determinations. It would be difficult for the Department to insure a consistent policy, however, if the administrative responsibility were so delegated. The alternative possibilities of referring administrative decisions to the Federal Trade Commission or arbitral tribunals appear somewhat less promising.

As an alternative plan for enforcing competition in industries dominated by patents, compulsory licensing under statutory authority might be undesirable or ineffective. A slight extension of existing judicial doctrine, however, would provide a practical means of insuring the licensing of patents at a reasonable royalty. The proposed doctrine is to deny injunctions in infringement suits where the infringer can show that the patent has been employed in some improper fashion (not necessarily in violation of the anti-trust laws) but to allow the patentee damages measured by a reasonable royalty. The determination of a reasonable royalty in advance should be permitted at the instance of the proposed infringer.

#### APPENDIX

(Final Judgment entered October 31, 1945).

“12. (A) The defendants Hartford-Empire Company, Corning Glass Works, Owens-Illinois Glass Company, Hazel-Atlas Glass Company, Thatcher Manufacturing Company, Lynch Corporation, and Ball Brothers Company, and each of them be and hereby is enjoined from engaging or continuing to engage in the business of distributing machinery used in the manufacture of glassware in interstate commerce, unless it shall, by instrument filed with the Clerk of this Court within sixty (60) days from the effective date of this decree (or, if it is not then engaged in such business, at least sixty (60) days prior to engaging therein), agree to license and lease, at the reasonable rates determined under paragraph 13, or to sell, at reasonable prices, to any applicant, machines used in the manufacture of glassware of the

classes which are then being, or about to be, offered or which, at any time subsequent to the filing of the complaint in this action, have been offered by such defendant in the United States, embodying or employing inventions covered by any patents now or hereafter owned or controlled by such defendant; provided that no defendant shall be required to agree to license and lease any such machines unless it is offering or about to offer, or within such period has offered, them for license and lease within the United States, nor to agree to sell any such machines unless it is offering, or about to offer, or within such period has offered, them for sale within the United States. Any applicant to purchase machines who deems the prices asked by a defendant obligated to sell hereunder to be unreasonable may, upon thirty (30) days' notice to the interested defendant and to the Attorney General, apply to this Court for the determination of reasonable prices and for an order of compliance with the prices so determined. The defendants named in this paragraph are hereby enjoined from repossessing or threatening to repossess any such licensed or leased machine prior to the expiration of the license and lease or any renewal thereof except upon thirty (30) days' written notice to the lessee and to the Attorney General.

"(B) The agreement required to be filed with the Court under this paragraph 12 shall include an agreement, as to any machines then under license and lease, to continue after the termination of all patent coverage thereon, to lease such machines at reasonable rental rates determined under paragraph 13 to the then lessee thereof and his assigns.

"(C) The provisions of 19 (A)(a) hereof shall apply to machines used in the manufacture of glassware which are not covered by patents and which may be leased by any of the defendants named in this paragraph; and each of such defendants be and hereby is perpetually enjoined from agreeing with any lessee or from inserting, enforcing or requiring any lessee to agree to any provision restraining any person from examining the structure and operation of such leased machines; provided that such defendants shall be entitled to just compensation for the impairment of any property rights in trade secrets resulting from any disclosure required hereunder.

"13. (A) The defendants Hartford-Empire Company, Corning Glass Works, Owens-Illinois Glass Company, Hazel-Atlas Glass Company, Thatcher Manufacturing Company, Lynch Corporation, and Ball Brothers Company, and each of them be and hereby is enjoined from the distribution of machinery used in the manufacture of glassware in interstate commerce, and from the distribution of glassware in interstate commerce, unless it shall, by instrument filed with the Clerk of the Court within sixty (60) days from the effective date of this decree, agree:

- (1) to grant to any applicant, under all patents now or hereafter owned or controlled by it (but only in so far as it has the right so to do), a license as hereinafter provided to make, have made, use and/or sell (a) all feeders, (b) all forming machines, (c) all suction machines, (d) all lehrs, and/or (e) all stackers, respectively, and meth-

ods used in connection therewith, which license may, at the option of such defendant, be limited to patents which cover inventions embodied in or employed by the machines in each such class manufactured, sold, leased or used by such defendant; and shall further agree

(2) to grant to any applicant under any patent or patents now or hereafter owned or controlled by it (but only in so far as it has the right so to do), a license as hereinafter provided to make, have made, use and/or sell any feeder, forming machine, suction machine, lehr or stacker, or part thereof and/or methods when used in connection therewith; provided that upon any application hereunder for the license of any invention for use in any of the machines required to be licensed under subparagraph (A)(1) of this paragraph, this Court may, in its discretion, upon a showing that the granting of such application probably will result in inequitable discrimination as between licensees or unduly burden the Court, deny such application;

and further provided that the defendant Corning Glass Works shall not be required to agree to grant licenses under subparagraph (A)(1) or (A)(2) for inventions embodied in or employed by its 399 or ribbon machine, or other machines of the classes of its presently existing forming machines or suction machines not theretofore used substantially by Corning Glass Works or its licensees for the manufacture of containers, as defined in paragraph 2 (A) hereof, tumblers, oven ware, table ware or kitchen ware; but said Corning Glass Works be and hereby is perpetually enjoined from commencing or maintaining any suit against any person, firm or corporation for infringement of present or future patents covering inventions embodied in or employed by any such machine through the use of such inventions for the manufacture of containers, as defined in paragraph 2(A) hereof, tumblers, oven ware, table ware or kitchen ware, provided that such person, firm or corporation shall have paid or offered to pay to Corning Glass Works for such use of such inventions reasonable royalties determined in the same manner as provided in subparagraph (H) of this paragraph with respect to privileges taken under subparagraph (A)(2) hereof, and said person, firm or corporation shall in all respects be in the same position under this judgment with respect to such inventions as if he or it had been granted licenses thereunder by Corning Glass Works.

“(B) As to each class of machines agreed to be licensed by each such defendant under subparagraph (A)(1) of this paragraph, said instrument shall designate separately the proposed charge, if any, for each of the following privileges (any one or more of which any applicant may elect to take): the rights under then existing patents (a) to use (if such defendant intends or is required hereunder to lease such machines), (b) to make, have made, and use, and (c) to make, have made, and sell (including the right to transfer to the vendee thereof the right to use) each such class of machines. If any

such defendant intends, or is required by this judgment, to lease or service any such machines licensed by it, said instrument shall include separate proposed charges, if any, for such of the following privileges as are intended, desired, or required to be furnished: (d) the use of each class of leased machines apart from the charge in (a), and (e) the servicing of each class of leased or licensed machines. The defendant, Hartford-Empire Company, in filing the schedule required by this subparagraph, shall include therein the royalty rates set forth in Exhibit A attached to the intervening complaint of Anchor-Hocking Glass Corporation, *et al.*, which rates are hereby determined to be reasonable and shall be effective from November 1, 1945.

"(C)(1) [Par. (C) was added by an order dated May 17, 1946.] The reasonable royalty initially to be charged by defendants for the privilege of making, having made and selling each feeder, forming machine, suction machine, lehr or stacker shall, as to each defendant, be a percentage, to be fixed by the Court, of the aggregate price paid by the purchaser of such machine. At any time after the expiration of one year from the entry of the Order incorporating this provision in Paragraph 13 (C) hereof, the plaintiff may petition the Court to reduce the then prevailing royalty for the privilege of making, having made and selling any such machine upon the ground that it has proved ineffective or inappropriate in practice to permit continuous competition between the licensor and an efficient purchaser from an efficient licensed distributor in using such machine or between the licensor in leasing or distributing it and efficient independent machinery manufacturers in making and selling it. When the number of machines in any such classification outstanding in the hands of glassware manufacturers (excluding machines under license or lease from Hartford-Empire Company and, if forming machines, machines sold by Lynch Corporation of the classes offered for sale by Lynch Corporation at the time of the entry of this order) shall total 35% of all such machines outstanding, (including both those which are and those which are not under license or lease from Hartford-Empire Company and those which were and those which were not sold by Lynch Corporation) the reasonable royalty thereafter payable to Hartford-Empire Company for the privilege of making, having made and selling such class of machines shall, upon application by Hartford-Empire Company, by any licensee under such a license, by any applicant therefor, or by the plaintiff, be determined by the Court at a figure which will permit continuous competition between the lessor in leasing such machines and an efficient licensee or licensees in selling them. When the number of machines of any such classification outstanding in the hands of glassware manufacturers (excluding, if forming machines, machines sold by Lynch Corporation of the classes offered for sale by Lynch Corporation at the time of the entry of this order, and excluding machines under license or lease from Hartford-Empire Company) shall total 35% of all such machines outstanding (including both those which were and those which were not sold by Lynch Corporation and those which are and those which are not under license or lease from Hartford-Empire Com-

pany), the reasonable royalty thereafter payable to Lynch Corporation for the privilege of making, having made and selling such class of machines shall, upon application by Lynch Corporation, by any licensee under such a license, by any applicant therefor, or by the plaintiff, be determined by the Court at a figure which will permit the defendant Lynch Corporation, to continue to compete with an efficient licensee or licensees in the sale of such machines at a reasonable profit. At any time after the expiration of two years from the entry of the order incorporating this provision in Paragraph 13 (C) hereof, the plaintiff, any licensee of a defendant other than Hartford-Empire Company or Lynch Corporation, any applicant for a license from any defendant other than Hartford-Empire Company or Lynch Corporation or any such defendant may apply to this Court to change a royalty fixed hereunder with respect to such defendant upon the ground that it is ineffective or inappropriate to permit continuous competition between the licensor and an efficient purchaser from an efficient licensed distributor in using such machines, or between the licensor and an efficient licensee or licensees in distributing them. In determining all royalties hereunder, it shall be kept in mind that the licensor is entitled to receive reasonable compensation for the use of its inventions.

“(2) If the licensor and licensee cannot agree as to the reasonable royalty for the privilege of making, having made and selling, obtained by any applicant under Subparagraph 13 A (2) hereof, either party may apply to the Court for determination of such reasonable royalty.

“(3) Each of the defendants named in this paragraph is hereby perpetually enjoined from requiring any purchaser of any such feeder, forming machine, suction machine, lehr or stacker from one licensed to sell it, to pay royalties to such defendant for the use of such machine and from receiving any such royalties; provided that license agreements entered into hereunder may, with the approval of this Court, make due provision insuring the payment in installments or otherwise of the royalties called for by this Paragraph 13 (C), except that under no circumstances shall the licensor, or anyone under its control, obtain title to any machines sold under such licenses.

“(D) The Settlement Agreement entered into between Hartford-Empire Company and its licensees, as set forth in paragraph 8 of the intervening complaint of Anchor-Hocking Glass Corporation, *et al.*, is hereby approved except in the event and in so far as it may conflict with subparagraph (C) hereof, in which event and to this extent it shall be disapproved and its enforcement or observance perpetually enjoined. With the acquiescence of all parties to said Agreement, but subject to their right to appeal the issues raised by subparagraph (C) hereof, said Agreement shall be thereby reformed and amended to eliminate all provisions in conflict with such subparagraph. Nothing in this subparagraph shall be deemed to authorize any action in violation of the anti-trust laws or in conflict with any other provision of this judgment.

“(E) The charges for each privilege designated in subparagraph (B)

hereof shall be uniform to all applicants, except that (a) credit may be given for the fair value of patent rights, development work, or other valuable considerations reasonably and in good faith contributed by any licensee to, or for the benefit of, the licensor; and (b) variations may be permitted when required by any statute or the order of any court or other governmental authority, or when specifically ordered by this Court for other good cause shown; provided that any person, firm, or corporation deeming himself or itself aggrieved by any want of uniformity in such charges may apply to this Court for an order requiring the elimination of any unjustified variation.

“(F) Except with respect to patent licenses or leases granted by one of the defendants named in this paragraph to another such defendant, each such defendant is perpetually enjoined and restrained from conditioning any patent license or lease granted under paragraph 12 or 13 of this judgment upon the granting of any such license or lease to such defendant.

“(G) Each defendant filing the instrument required under subparagraph (A) of this paragraph shall forthwith furnish a copy thereof to each domestic manufacturer of glassware and to each domestic manufacturer of machinery used in the manufacture of glassware known to such defendant, together with written notice that any such manufacturer desiring to contest the reasonableness of any of the proposed charges under subparagraphs (A)(1) and (B) hereof may, within thirty (30) days from the mailing of such notice, file with the Court a written protest setting forth the basis of its objections. Such defendants shall file with the Court proof of the mailing of such notices; and upon expiration of thirty (30) days from the last date of such mailing, the Court, upon such further proceedings before a master or otherwise as it may deem necessary, shall proceed to determine reasonable rates with respect to all such charges, except those theretofore determined to be reasonable as provided in subparagraph (B) of this paragraph.

“(H) Any applicant may elect at any time to take any or all of the privileges described in subparagraph (B) hereof under then existing patents offered under subparagraph (A)(1) hereof, at the charges determined by this Court to be reasonable, and may elect to take the privileges under then existing patents offered under subparagraph (A)(2) of this paragraph. Any applicant thus electing to take such privileges under said subparagraph (A)(2) and who fails to agree with the licensing defendant as to the rate of royalty which is reasonable under such license may apply to the Court for a determination of such reasonable royalty rate for the specific patent rights applied for.

“(I) The plaintiff or any interested defendant, applicant, or licensee reasonably deeming that changes in the patent position of any defendant require changes in any charges theretofore determined to be reasonable hereunder or the determination of new charges for any privilege or privileges may, upon sixty (60) days' written notice to the Attorney General, to each domestic manufacturer of glassware and to each domestic manufacturer of machinery used in the manufacture of glassware known to the party giving

notice, petition the Court for a determination or redetermination of the reasonableness of said charges.

“(J) In accordance with the aforesaid Settlement Agreement, Hartford-Empire Company shall forthwith execute agreements in the form of Article I of Exhibits B, C, D and E annexed to the aforesaid intervening complaint of Anchor-Hocking Glass Corporation, *et al.*, shall execute and issue to such licensees as may desire the same, agreements in the form of Article II of said Exhibits, and as soon as practicable shall issue to all then existing lessees of its machines leases and licenses in the standard forms hereto annexed designated, respectively, as:

- Exhibit A—Feeder License and Lease
- Exhibit B—Forming Machine License and Lease
- Exhibit C—Stacker License and Lease
- Exhibit D—Lehr License and Lease

the terms and provisions of which are found to be reasonable and are hereby approved. Such licenses and leases, and all other licenses or leases subject to the judgment, shall upon reasonable notice to the licensor be assignable, shall contain the royalty rates determined to be reasonable hereunder and shall run for a five-year term, with automatic rights of renewal in the licensees for additional three-year periods, but shall expressly provide that the licensee shall be free at any time during the term of the license to contest the validity, scope or enforceability of any of the patents licensed thereunder; provided that this provision shall not be construed to permit, directly or indirectly, the collection of any sums from Hartford-Empire Company with respect to any period prior to November 1, 1945. No other licenses or leases subject to this judgment shall be entered into after the entry of this judgment, or continued in effect for more than sixty (60) days thereafter (except by permission of the Court), unless and until the substantive provisions thereof (excluding mere formal provisions and dates, signatures, names of parties, number and description of the inventions, machines, and patents licensed) have been approved by the Court; and no amendments shall be made in such substantive provisions in any licenses or leases subject to this judgment unless and until such approval has been obtained. Licenses and leases subject to this judgment shall be subject to modification by this Court hereunder and may extend only to existing patents, provided this shall not in any way impair the right of any applicant to obtain licenses hereunder extending to additional patents when issued.

“(K) If any dispute arises between any applicant, licensee, lessee, or vendee and any defendant under this paragraph, any party thereto may have such dispute determined by the Court on petition on thirty (30) days' notice to the other party to the dispute and to the Attorney General. . . .

“18(k) If any claim is made by the plaintiff or a defendant or any party to any agreement between any of the corporate defendants or between Hartford-Empire Company and any of its licensees, relating to patented

machinery and/or methods used in the manufacture of glassware, that it embodies restrictive or discriminatory provisions inconsistent with the terms of this judgment, such claim shall be passed upon by this Court on petition by the claimant, on thirty (30) days' notice to the Attorney General of the United States (if plaintiff is not the claimant) and to all defendants and contracting parties affected, and the reformation of any such agreement may be decreed by ordering the deletion of any such restrictive or discriminatory provisions found to be embodied therein. . . .

"20. During the ten years following the entry of this judgment, any agreement between any of the corporate defendants relating to patents, trade practices, volume or methods of production, or trade relations and to the subject matter of this judgment, shall be filed with the Attorney General at least fifteen (15) days before being entered into; provided that if the Attorney General files objections to any provision of any such proposed agreement within fifteen (15) days from the date of said filing, no defendant shall become a party thereto until such agreement has been approved by the Court; and provided further that it shall be unnecessary to file any agreement which is identical (except as to parties, dates, number and types of machines involved) with any agreement theretofore filed with the Attorney General. Any future agreement between Hartford-Empire Company and its licensees in modification or settlement of any obligations arising out of this case shall be subject to the approval of this Court, on at least fifteen (15) days' notice to the Attorney General. . . .

"39. For the purpose of securing compliance with this judgment, and for no other purpose, duly authorized representatives of the Department of Justice shall, on written request of the Attorney General or an Assistant Attorney General, and on reasonable notice to any one of the defendant corporations made to the principal office of such defendant corporation, be permitted, subject to any legally recognized privilege (1) access, during the office hours of such defendant corporation, to all books, ledgers, accounts, correspondence, memoranda and other records and documents in the possession or under the control of such defendant corporation relating to any matters contained in this judgment, and (2) subject to the reasonable convenience of such defendant corporation and without restraint or interference from the defendants to interview officers or employees of such defendant corporation, who may have counsel present, regarding any such matters; provided, however, that such information obtained by the means permitted in this paragraph shall not be divulged by any representative of the Department of Justice to any person other than a duly authorized representative of the Department of Justice except in the course of legal proceedings for the purpose of securing compliance with this decree in which the United States is a party or as is otherwise required by law. . . ."