

Syllabus.

UNITED STATES *v.* NATIONAL LEAD CO. ET AL.

NO. 89. APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF NEW YORK.*

Argued February 3-5, 1947.—Decided June 23, 1947.

1. In a suit to enjoin violations of §§ 1 and 2 of the Sherman Anti-trust Act, the District Court found that defendants had participated in an "international cartel" constituting a combination or conspiracy in restraint of trade and commerce in titanium products among the several states of the United States and with foreign nations through the pooling of patents and the allocation of markets and that they had been and still were parties to agreements in restraint of such trade and commerce in violation of § 1 of the Sherman Act. *Held:*

(a) Counsel for two of the defendants having accepted cancellation of the agreements and an injunction against their continuation or renewal, this Court accepts without discussion the District Court's finding that these two defendants participated since 1920 in the cartel in violation of § 1 of the Sherman Act. Pp. 325-326.

(b) This Court sustains the finding of the District Court that the third defendant participated in such illegal combination after 1933. Pp. 326-327.

(c) This Court sustains the finding of the District Court that the contract between two of the defendants, under which they utilized their patents to control and regulate the manufacture and sale of titanium products in the United States, was offensive to the antitrust laws apart from the relation of that contract, and of the parties thereto, to foreign producers. Pp. 327-328.

2. The District Court adjudged unlawful and canceled certain agreements between defendants and between them and various co-conspirators; enjoined further performance, continuation or renewal of such agreements; enjoined defendants from entering into similar agreements in the future; ordered defendants to grant to any applicant therefor a nonexclusive license under certain patents at a uniform reasonable royalty; authorized reciprocal licenses on certain terms; ordered certain defendants to present to the court for its

*Together with No. 90, *National Lead Co. et al. v. United States*, and No. 91, *E. I. du Pont de Nemours & Co. v. United States*, also on appeal from the same Court.

approval a plan for divesting themselves of their stockholdings and other financial interests in certain other companies or for the purchase of the entire stockholdings and other financial interests in such companies; retained jurisdiction; and provided for supervision. *Held*: This decree did not exceed the District Court's discretion. Pp. 328-335.

(a) To a large extent, the provisions of this decree are matters lying in the discretion of the District Court. P. 334.

(b) The District Court was confronted with an obligation to give effect, on the one hand, to the provisions of the patent laws granting certain valuable rights in the nature of monopolies and, on the other hand, to the provisions of the Sherman Act prohibiting any combination or conspiracy in restraint of trade. Pp. 334-335.

(c) The essential consideration is that the remedy shall be as effective and fair as possible in preventing continued or future violations of the Sherman Act in the light of the facts of the particular case. P. 335.

3. The decree should not be modified so as to provide for compulsory royalty-free licenses or so as to enjoin the patentees or licensees from enforcing the terms of the patents involved. Pp. 335-351.

(a) Without reaching the question whether royalty-free licensing or a perpetual injunction against the enforcement of a patent is permissible as a matter of law in any case, the present decree represents an exercise of sound judicial discretion. P. 338.

(b) This being a civil, not a criminal, proceeding, the purpose of the decree is not punishment but effective and fair enforcement. Pp. 338, 348.

(c) On the facts of this case, such a modification of the decree has not been shown to be necessary in order to enforce effectively the Antitrust Act. Pp. 338-349.

(d) To reduce all royalties automatically to zero, regardless of their nature and regardless of their number, appears, on its face, to be inequitable without special proof to support such a conclusion. P. 349.

(e) What will be "reasonable royalties" will depend upon the facts of each case. P. 349.

(f) Under its decree, the District Court retains sufficient jurisdiction to enable it to vacate or modify its orders fixing reasonable royalty rates if it finds such action to be necessary or appropriate. P. 351.

4. On the facts of this case, there was neither precedent nor good reason for a requirement (requested by the Government and denied by the District Court) that National Lead and du Pont each submit

a plan for the divestiture of one of its two principal titanium pigment plants, together with the related physical properties. Pp. 351-353.

(a) The existing vigorous competition between these two defendants suggested that the District Court would do well to remove unlawful handicaps from it but demonstrates no sufficient basis for weakening its force by divesting each of the two largest competitors of one of its principal plants. Pp. 352-353.

(b) It is not for the courts to realign and redirect effective and lawful competition where it already exists and needs only to be released from restraints that violate the antitrust laws. P. 353.

(c) To separate the operating units of going concerns without more supporting evidence than has been presented here to establish either the need or the feasibility of it would amount to an abuse of discretion. P. 353.

5. The District Court did not exceed its discretion in requiring that, during a period of three years, defendants make available to licensees under their patents, at a reasonable charge, certain information in writing as to the methods and processes used by the licensor at the date of licensing. *Hartford-Empire Co. v. United States*, 323 U. S. 386, 413, 418, distinguished. Pp. 353-358.

(a) The justification for the compulsory imparting of methods and processes rests upon its appropriateness and upon the necessity for it in providing an effective decree—not upon a punitive purpose. P. 357.

(b) Since the public interest requires that the court be permitted to produce the most effective and generally fair decree that it can devise to give effect simultaneously to the antitrust laws and the patent laws, the decree represents a permissible exercise of judicial discretion—even though it includes, within narrow limits, disclosure of technical information by one defendant to another defendant which is its leading competitor. Pp. 358-359.

6. The District Court did not exceed its discretion in denying the Government's request that there be substituted a requirement that defendants furnish to any applicant, at a reasonable charge, during the period of three years, technical information desired by the applicant relating to the methods and processes for manufacturing titanium pigments. Pp. 353, 359.

(a) The decree is within the permissible breadth of the District Court's discretion over the conditions under which technical information shall be required to be shared with the world. P. 359.

(b) The proposal to throw the field of technical knowledge in this field wide-open would discourage, rather than encourage,

- competitive research and thus would be contrary to, rather than in confirmity with, the present policy of the patent laws. P. 359.
7. The District Court did not exceed its discretion in denying the Government's request that there be omitted from the decree a provision that defendants may make the grant of any license by either of them to an applicant under the decree conditioned upon the reciprocal grant of a license by the applicant, at a reasonable royalty, under certain described patents owned or controlled by such applicant. Pp. 359-360.
8. The Government's request to omit the six-months' time limit imposed by the decree upon the options of certain corporations to secure certain licenses under the decree need not be granted, since the new effective date to be given the decree pursuant to the order of this Court will allow ample time for the exercise of this option under its terms. Pp. 360-361.
9. The District Court did not exceed its discretion in denying the request of a defendant to modify the decree so as to eliminate language which, the defendant claimed, forbids normal and usual business arrangements between the defendant and other producers of titanium products. Pp. 361-363.
- (a) This provision deals solely with the future enforceability of existing contracts which have been found to violate the Sherman Act and it imposes no unjustified restriction on defendant's power to contract. P. 362.
- (b) If defendant later can demonstrate that its right of contract has been unduly restricted, it may, under the terms of the decree, apply to the District Court for a modification. P. 363.
10. The acquisition by defendants of stock and other financial interests in certain foreign companies having been part and parcel of unlawful territorial allocation agreements, the future performance of which has been enjoined, the District Court did not exceed its discretion in decreeing that, within one year, defendants shall present to the District Court for its approval a plan for divesting themselves of their stockholdings and other financial interests in such foreign companies or for the purchase of the entire stockholdings and interests, direct or indirect, therein. P. 363.
11. In view of the stay granted by a Justice of this Court suspending certain provisions of the decree pending determination of these appeals, the decree shall be deemed, for the purposes of those paragraphs and for the running of time thereon, to take effect on the effective date of the mandate to be issued by this Court. Pp. 363-364.
- 63 F. Supp. 513, affirmed.

In a proceeding in equity instituted under § 4 of the Sherman Antitrust Act, the District Court found that defendants had violated § 1 of the Act and issued a decree to prevent and restrain further violations. 63 F. Supp. 513. Both the Government and the defendants appealed. *Affirmed*, p. 364.

Assistant Attorney General Berge and *William C. Dixon* argued the cause for the United States. With them on the brief in No. 89 were *Acting Solicitor General Washington*, *Elliott H. Moyer*, *Robert A. Nitschke*, *Robert L. Stern* and *Robert L. Tollefsen*. *Acting Solicitor General Washington* was also on the brief with *Mr. Berge* and *Mr. Dixon* in Nos. 90 and 91.

Bethuel M. Webster argued the cause for the National Lead Company et al., appellees in No. 89 and appellants in No. 90. With him on the brief were *Clifton P. Williamson* and *Edward L. Rea*.

Wm. Dwight Whitney argued the cause for E. I. du Pont de Nemours & Co., appellee in No. 89 and appellant in No. 91. With him on the brief were *Gerhard A. Gesell*, *John Logan O'Donnell*, *Nestor Shea Foley*, *Oscar A. Provost* and *John Hancock*.

MR. JUSTICE BURTON delivered the opinion of the Court.

This action was brought by The United States of America, June 24, 1944, in the District Court of the United States for the Southern District of New York, against National Lead Company (a New Jersey corporation, here called National Lead or NL), its wholly owned subsidiary, Titan Company, Inc. (a Delaware corporation, here called Titan Inc. or Tinc) and E. I. du Pont de Nemours and Company (a Delaware corporation, here called du Pont

or DP). It is a proceeding in equity instituted under § 4 of the Sherman Antitrust Act, 26 Stat. 209, 36 Stat. 1167, 15 U. S. C. § 4, to prevent and restrain alleged violations of §§ 1 and 2 of that Act, 26 Stat. 209, 50 Stat. 693, 15 U. S. C. §§ 1 and 2. The trial was conducted by Judge Simon H. Rifkind of that court. It began December 4, 1944, and ended March 14, 1945. His opinion was filed July 5, 1945. His 96 findings of fact and two conclusions of law were entered October 2, 1945. After extended consideration of its terms, by the court and by counsel for all parties, the decree was entered October 11, 1945. The opinion and decree are reported in 63 F. Supp. 513-535. The findings of fact, conclusions of law and much of the detailed discussion of the decree are in the record. Separate appeals were filed in this Court, in case No. 89 by the United States, in case No. 90 by National Lead and Titan Inc. and in case No. 91 by du Pont. The three companies are sometimes referred to as "the appellant companies." We noted probable jurisdiction in each appeal, May 20, 1946, and the three appeals were argued together February 3-5, 1947. A partial stay of the decree had been granted by MR. JUSTICE REED, on January 2, 1946, pending determination of the appeals. Reference is made to the opinion of the District Court for a recital of the complex facts which it had to consider in order to reach its conclusion that National Lead, Titan Inc. and du Pont each violated § 1 of the Sherman Act,¹ although it found

¹"SECTION 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal: Every person who shall make any contract or engage in any combination or conspiracy hereby declared to be illegal shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding \$5,000, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court." 50 Stat. 693-694, 15 U. S. C. § 1.

a marked difference between the conduct of National Lead and of its subsidiary, Titan Inc., on the one hand, and that of du Pont on the other. This Court affirms the judgment of the District Court, except as to the original effective dates of certain of its provisions, and our discussion will relate largely to the assignments of error as to the terms of the decree.

I. The first issue presented to the District Court was that of the participation of National Lead and Titan Inc. in a so-called "international cartel" dating back to 1920, and constituting a combination or conspiracy in restraint of trade and commerce in titanium pigments and compounds, among the several states of the United States and with foreign nations, which combination, after 1933, was alleged to include du Pont. The District Court found such participation.² In their brief on appeal in No. 90, National Lead and Titan Inc. said:

"The Government's case was based on a series of closely related agreements made between 1920 and 1944. The agreements have been cancelled and continuation or renewal has been enjoined. The appeals are greatly simplified by the fact that we accept the cancellation and the injunction against continuation

² The conclusions of law of the District Court were as follows:

"1. Beginning on or about July 30, 1920, NL and co-conspirator TAS [Titan Co. A/S to which Titan Inc. became a successor in interest] and on various dates thereafter Tinc, DP and the others found herein to be co-conspirators continuing at all times thereafter to the date of these findings have been continuously engaged in a combination and conspiracy in restraint of trade and commerce in titanium pigments and compounds among the several states of the United States and with foreign nations and have been and are now parties to contracts, agreements and understandings in restraint of such trade and commerce.

"2. Plaintiff is entitled to a decree." See also, *United States v. National Lead Co.*, 63 F. Supp. 513, 527, 531, 532.

or renewal. We submit, however, that the court went too far in forbidding normal and usual contractual arrangements."

Accordingly, the finding of the District Court, as to the participation of National Lead and Titan Inc. in the violation of § 1 of the Sherman Act, is accepted here without further discussion.

II. The second issue was that of the participation of du Pont in such combination after 1933. The District Court found that du Pont "joined the conspiracy found herein to exist between, NL and its foreign associates. DP's status rights and obligations were different from those of the other members of the combination. DP did not thereafter withdraw." Finding of Fact 73. The District Court, in its opinion, also stated that—

"At least then as to territorial delimitations of the titanium pigment business, DP joined the combination. . . .

"My general summary of the evidence on this issue is that DP was a member of the combination—true, a special member, with a status, rights and obligations, different from that of the other members, but a member nonetheless." 63 F. Supp. at 530, 531, and see the preamble to the decree at 532.³

This finding is contested vigorously by du Pont and is the principal subject matter of its appeal in No. 91. After careful consideration, we agree with the following conclusion of the District Court:

"In sharp contrast with NL, DP exhibited, from the very beginning of its interest in titanium, an alert consciousness of the anti-trust laws and moved cautiously and under the guidance of trained anti-

³ See note 4, *infra*.

trust lawyers. The question is whether it succeeded in avoiding not only the form but also the substance of transgression. I have concluded that it has not;" *Id.* at 527.

It would serve no beneficial purpose to review here the evidence upon which that court based its conclusion. Its opinion analyzes the facts (*Id.* at 527-531) and, in the light of the record as a whole, we find in those facts the support necessary for the conclusion reached.

III. Related to these issues was a third. This was whether the contract between National Lead and du Pont was offensive to the antitrust laws apart from the relation of that contract, and of the parties thereto, to the foreign producers. The District Court found that it was and also related it to the international situation. It found that—

"The defendants NL, DP and Tinc have utilized their patents which relate to the manufacture and use of titanium pigments to control and regulate the manufacture and sale of titanium pigments and compounds in the United States; and NL and Tinc with the co-operation of DP have done so throughout the rest of the world." Finding of Fact 95, subparagraph 9.

In its opinion the District Court emphasized also "the great power they acquired" (*Id.* at 531) and indicated criticism of limitations originally inserted in certain important licenses, although later removed from them. *Id.* at 532. Added together, the control of the patents covered by this agreement gave to National Lead and du Pont "domination and control over the titanium pigment business in the U. S." Finding of Fact 79. The District Court referred to the "proliferation of patents" as another "inevitable consequence" of the agreement. *Id.* at 532. This was explained to mean the great multiplication of

related patents, resulting in increasing the difficulty of an attack upon them. The validity of none of the hundreds of patents involved has been litigated.

"These patents, through the agreements in which they are enmeshed and the manner in which they have been used, have, in fact, been forged into instruments of domination of an entire industry. The net effect is that a business, originally founded upon patents which have long since expired, is today less accessible to free enterprise than when it was first launched." *Id.* at 532.

Referring to the exchange of patents between National Lead and du Pont, the District Court added:

". . . in the context of the present case, . . . this exchange between two corporations, who between them controlled the entire market, becomes an instrument of restraint, available for use and used, to continue the mastery of the market which NL and DP achieved by means of the illegal international agreements." *Id.* at 532.

These facts are important not only in affirming, as we do, the finding that National Lead, Titan Inc. and du Pont each has violated § 1 of the Sherman Antitrust Act, but also in passing upon the terms of the decree entered in order to prevent future violations of that Act by them.

IV. The remaining issues relate to the terms of the decree. The entire decree, exclusive of its Appendix, is reported at 63 F. Supp. 532-535, and, for reference purposes, is here reprinted in the margin, as there reported.⁴

⁴"This cause came on to be heard upon the complaint and the answers thereto upon the evidence and upon argument of counsel. The Court having thereafter rendered and filed its opinion and having made and entered findings of fact and conclusions of law wherein the defendants have been found to have been engaged in a combination in restraint of trade and commerce in titanium pigments among

This decree represents a careful attempt to fit the remedy to the needs of this case. The record upon which

the several states of the United States and of foreign nations, and that the defendants have been and now are parties to contracts, agreements, and understandings in restraint of such trade and commerce in violation of Section 1 of the Sherman Act, 26 Stat. 209, 15 U. S. C. A. § 1;

“Now, therefore, upon motion of plaintiff by Wendell Berge, Assistant Attorney General, Herbert Berman and William C. Dixon, Special Assistants to the Attorney General, Julian Caplan and Ephraim Jacobs, Special Attorneys, and John F. X. McGohey, United States Attorney, for relief in accordance with the prayer of the complaint, and the defendants having severally appeared by counsel, it is ordered, adjudged and decreed as follows:

“1. The term ‘titanium pigments’ as used herein shall mean any product containing two percent (2%) or more of the element titanium in a chemically, mechanically or physically combined state and mixtures thereof which can be used as pigments, whether or not adapted for other uses, and also extenders to be used in conjunction with any such product.

“2. The term ‘defendants’ shall mean the corporations hereinafter listed who may be identified by the designated abbreviations:

- NL National Lead Company
- Tinc Titan Company, Inc.
- DP E. I. du Pont de Nemours and Company

“3. The term ‘co-conspirators’ shall mean the corporations hereinafter listed, who may be identified by the designated abbreviations:

- TP The Titanium Pigment Company, Inc.
- Krebs Krebs Pigment & Color Corporation
- TAS Titan Co. A/S
- IG Interessengemeinschaft Farbenindustrie Aktiengesellschaft
- TG Titangesellschaft m.b.H.
- SIT Société Industrielle du Titane
- ICI Imperial Chemical Industries, Ltd.
- GW Goodlass Wall and Lead Industries, Ltd.
- ISC Imperial Smelting Corporation, Ltd.
- BTP British Titan Products Company, Ltd.
- NTP or National Titanium Pigments, Ltd.
- Laporte

it is based consists of two large volumes of testimony and four larger volumes of exhibits, representing a total of

CIL	Canadian Industries, Ltd.
CTP	Canadian Titanium Pigments, Ltd.
Kokusan or KK	Kokusan Kogyo Kabushiki Kaisha
TK	Titan Kogyo Kabushiki Kaisha
Terres Rares	Société des Produits Chimiques des Terres Rares
Thann	Fabriques des Produits Chimiques de Thann et de Mulhouse
Montecatini	Societa Anonima Titanium
Aussig	Verein für Chemische und Metallurgische Produktion

"4. The term 'patents as herein defined' shall mean United States letters patent and applications as follows: (a) the letters patent and patent applications listed in Appendix A hereof; (b) all divisions, continuations or reissues of any of the foregoing patents and applications; (c) all patents issued upon such applications; (d) all patents which cover any titanium pigments or any process for the manufacture of titanium pigments issued to any of the defendants within five years from the date of this decree; and all such patents which any of the defendants acquires within such five years; and all such patents of which any of the defendants becomes the exclusive licensee within such five years with power to sublicense.

"5. The following agreements are hereby adjudged to be unlawful under Section 1 of the Sherman Act and each of them is hereby cancelled and the defendants and each of them and all persons acting or claiming to act through, for or under them and all successors and subsidiaries of any of the defendants are hereby enjoined and restrained from the further performance of any of the provisions of said agreements and of any agreements amendatory thereof or supplemental thereto:

Agreement dated July 30, 1920, between TP and TAS (Exhibit A);

Agreement between TP and Krebs dated January 1, 1933, as amended January 1, 1941 (Exhibits E and E-3);

Agreements dated July 30, 1920, between NL, TP, The Titanium Alloy Manufacturing Company and TAS (Exhibits A-1 and A-2);

Agreement between TAS and SIT dated March 3, 1927 (Exhibit B);

Agreement between TAS and IG dated October 3 and 20, 1927 (Exhibit C);

over 5,500 pages, reflecting more than three months of trial. It demonstrates a commendable procedure. Pro-

Agreement between TAS and IG signed June 24 and October 20, 1927 (Exhibit C-1);

Agreement between TAS and TG signed October 3 and 20, 1927 (Exhibit C-3);

Agreement between TG and TAS dated October 3 and 20, 1927 (Exhibit C-7);

Agreement between TG and TAS dated October 3 and 20, 1927 (Exhibit C-8);

Agreement dated February 16, 1933 between ICI, ISC, GW and TINC (Exhibit F);

Agreements between TINC, SIT, TERRES RARES, and Thann dated June 5 and 17, 1935 (Exhibits G-1 and G-2);

Agreements between TINC, TERRES RARES, and IG, and between TINC, Terres Rares, IG, TG, Thann, and Doitsu [Doitsu Senryo Gomei Kaisha, Kobe/Japan] both dated January 18, 1936 (Exhibits J and J-2);

Agreement between NL and CIL dated January 1, 1937 (Exhibit K);

Agreement between NL and CTP dated January 1, 1937, as amended February 27, 1939 (Exhibits K-1 and K-5);

Agreements between DP and TINC dated July 27, 1937, June 20, 1938, April 21, 1939, May 10, 1940, and June 23, 1941 (Exhibits M, N, Q, R and S), and the

'License Field Extender' agreements to which NL or TINC were parties, including the agreement between NL and TINC dated March 28, 1939 (Exhibit O);

provided, however, that the provisions of this paragraph with respect to the agreements between TP and Krebs dated January 1, 1933, as amended January 1, 1941 (Exhibits E and E-3) shall not go into effect until the expiration of nine months from the date of this decree.

"6. Each of the defendants and each of their directors, officers, agents, employees, successors and subsidiaries and all persons acting, or claiming to act under, through or for them or any of them are hereby enjoined and restrained (a) from entering into, adhering to, maintaining or furthering, directly or indirectly, or claiming any rights under any contract, agreement, understanding, plan or program among themselves, the co-conspirators, or with any other person,

posed findings of fact and conclusions of law were submitted on behalf of the respective parties and a form of

partnership or corporation, which has as its purpose or effect the continuing or renewing of any of the agreements listed in paragraph 5 hereof; (b) from entering into, adhering to, maintaining or furthering, directly or indirectly, any contract, agreement, undertaking, plan or program with any other producer or dealer relating to titanium pigments which has as its purpose or effect (1) to divide sales or manufacturing territories, (2) to allocate markets, (3) to limit or prevent United States imports or exports, (4) to grant to any third party any market as its exclusive territory, (5) to keep any third party out of any market; provided, however, that nothing contained in this subdivision (b) of this paragraph 6 shall prohibit any normal and usual arrangements between any defendant and its directors, officers, employees, agents, subsidiaries, or any dealer or distributor, whether or not a co-conspirator; (c) from restricting any purchaser of titanium pigments in the use thereof.

"7. Each of the defendants is ordered to grant to any applicant therefor, including any defendant or co-conspirator, a nonexclusive license under any or all of the patents as herein defined at a uniform, reasonable royalty. Such grant may, at the option of the licensor, be conditioned upon the reciprocal grant of a license by the applicant, at a reasonable royalty, under any and all patents covering titanium pigments or their manufacture, now issued or pending, or issued within five years from the date of this decree, if any, owned or controlled by such applicant. Such license or reciprocal license may, at the option of either party, contain a provision for the inspection of the books and records of the licensee by an independent auditor who shall report to the licensor only the amount of royalty due and payable and no other information. During a period of three years from the date of this decree such license or reciprocal license may at the option of either party contain a provision for the imparting in writing, at a reasonable charge, by the licensor to the licensee, of the methods and processes used by the former at the date of the license in its commercial practice under the licensed patents in connection with the production of titanium pigments. The Court reserves jurisdiction to pass upon the reasonableness of any royalty or charge herein directed to be reasonable. Defendants are restrained from attempting to enforce any rights under any foreign patents owned by them or under which they are the exclusive licensees to

decree was submitted on behalf of the Government to the District Court immediately following the trial. The

prevent the exportation of titanium pigments from the United States to any foreign country.

"8. Within one year from the date of this decree, defendants NL and Tinc shall present to the Court for its approval a plan for divesting themselves of their stock holdings and other financial interest, direct and indirect, in BTP, CTP, TG and TK, or for the purchase of the entire stock holdings and other financial interests, direct and indirect, in said companies or any of them. Such plan of sale shall not provide for the transfer of such stock or interest to any other defendant or to any corporation in which any defendant will, upon consummation of the plan, have any interest, provided that this provision shall not preclude transfer of said defendants' stock holdings in BTP to ISC, GW, and ICI, or any of them, or preclude transfer of said defendants' stock holdings in CTP to CIL. The plan shall provide for its completion within two years from the date of this decree.

"9. Either American Zirconium Corporation or Virginia Chemical Corporation, their successors or assigns, may at their option, if exercised within six months from the date of this decree, apply for licenses from DP under the provisions of paragraph 7. In the event American Zirconium Corporation, Virginia Chemical Corporation or their respective successors or assigns exercise the foregoing option, DP is enjoined from collecting royalties under any existing license agreement relating to titanium pigments between it and the person exercising the option in respect of any period subsequent to such exercise. Defendants NL, Tinc and DP are hereby enjoined from bringing, or threatening to bring, any action against any person or corporation for the alleged infringement prior to the date of this decree of any patent as herein defined.

"10. The Attorney General of the United States or his proper representative shall, for the purpose of securing compliance with this decree, be permitted (1) access, during the office hours of the defendants, to all books, ledgers, accounts, correspondence, memoranda, and other records and documents in the possession or under the control of the defendants, relating to any matters contained in this decree, (2) subject to any legally recognized privilege, without restraint or interference from the defendants, to interview officers or employees of the defendants, who may have counsel present, regarding any such matters; provided, however, that information obtained by

opinion of the District Court, when filed, formed the basis of further consultation and argument. After the District Court's findings of fact and conclusions of law were entered, further conferences were held with counsel and full opportunity was given to them to propose changes in the findings of fact and the decree. Much of this discussion was reported in the record and has been of benefit to this Court in reviewing the decree.

In our opinion, the provisions of this decree, to a large extent, are matters lying within the discretion of the District Court as a court of equity whose duty it was to make the remedy as effective as possible. The District Court

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 otherwise required by law.

"11. Judgment is entered against the defendants for all costs to be taxed in this proceeding.

"12. The cancellations, injunctions and all executory action provided for under this decree shall not become effective or operative until ninety days from the date of this decree.

"13. Jurisdiction of this cause, and of the parties hereto, is retained by the Court for the purpose of enabling any of the parties to this decree, or any other person or corporation that may hereafter become bound, in whole or in part, thereby to apply to the Court at any time for such further orders, modifications, vacations or directions as may be necessary or appropriate

(1) for the construction or carrying out of this decree, and

(2) for the enforcement of compliance therewith and the punishment of violations thereof."

"Appendix A" consists only of the identification of National Lead's 82 patents and 20 applications for patents; Titan Inc.'s 19 patents and 1 application; Titan Co. A/S's 2 patents; I. G. Farbenindustrie's 22 patents; Titangesellschaft's 2 patents; and du Pont's 175 patents and 30 applications. The references in the decree to Exhibits refer to such exhibits as they are identified in the record of this case in the District Court.

was confronted with an obligation to give effect to the provisions, on the one hand, of the patent laws granting certain valuable rights in the nature of monopolies to the patentees and their licensees, and also to give effect, on the other hand, to the provisions of the Sherman Antitrust Act prohibiting any combination or conspiracy in restraint of trade among the several states or with foreign nations. We believe that the District Court has not exceeded its discretion in the provisions of this decree but has employed its discretion with commendable fairness having especial regard to the needs of this case. It has succeeded in keeping within the lines of precedent thus far established, although, in this field, such lines cannot be much more than guides. The essential consideration is that the remedy shall be as effective and fair as possible in preventing continued or future violations of the Antitrust Act in the light of the facts of the particular case.

The issues are presented by the assignments of error in the three appeals. They will be considered separately in conjunction with their supporting arguments. In each instance we sustain the present decree.

A. Request to omit the requirement of the granting of compulsory, nonexclusive licenses at uniform, reasonable royalties and to substitute for that requirement, either a perpetual injunction against the enforcement of the titanium patents presently owned or controlled by the respective appellant companies, or a provision for compulsory licenses to be issued under those patents, free of royalties.

This is the major legal issue in this case.

The material provisions in the present decree are as follows:

"4. The term 'patents as herein defined' shall mean United States letters patent and applications as follows: (a) the letters patent and patent applications

listed in Appendix A hereof; (b) all divisions, continuations or reissues of any of the foregoing patents and applications; (c) all patents issued upon such applications; (d) all patents which cover any titanium pigments or any process for the manufacture of titanium pigments issued to any of the defendants within five years from the date of this decree; and all such patents which any of the defendants acquires within such five years; and all such patents of which any of the defendants becomes the exclusive licensee within such five years with power to sublicense.

“7. Each of the defendants is ordered to grant to any applicant therefor, including any defendant or co-conspirator, a nonexclusive license under any or all of the patents as herein defined at a uniform, reasonable royalty. Such grant may, at the option of the licensor, be conditioned upon the reciprocal grant of a license by the applicant, at a reasonable royalty, under any and all patents covering titanium pigments or their manufacture, now issued or pending, or issued within five years from the date of this decree, if any, owned or controlled by such applicant. Such license or reciprocal license may, at the option of either party, contain a provision for the inspection of the books and records of the licensee by an independent auditor who shall report to the licensor only the amount of royalty due and payable and no other information. During a period of three years from the date of this decree such license or reciprocal license may at the option of either party contain a provision for the imparting in writing, at a reasonable charge, by the licensor to the licensee, of the methods and processes used by the former at the date of the license in its commercial practice under the licensed patents in connection with the production of titanium

pigments. The Court reserves jurisdiction to pass upon the reasonableness of any royalty or charge herein directed to be reasonable. Defendants are restrained from attempting to enforce any rights under any foreign patents owned by them or under which they are the exclusive licensees to prevent the exportation of titanium pigments from the United States to any foreign country."

The assignment of error originally made by the Government, in No. 89, as to this point was as follows:

"1. The court erred in failing to require each defendant to license its existing titanium pigment patents free of royalty until the court shall have determined, on application by any defendant, that the effects of the defendants' illegal combination, as set forth in the court's findings of fact and conclusions of law, have been fully dissipated."

Later the Government moved to amend this assignment of error so that it would read as follows:

"The court erred in failing to enter an injunction perpetually enjoining the defendants from enforcing the titanium patents presently owned or controlled by them."

This Court postponed consideration of the above motion to the hearing of the case on its merits. On oral argument, the Government supported its second proposal but indicated that, if that proposal were not satisfactory, it would prefer its original request to the provision for uniform, reasonable royalties now in the decree. The Government's motion to amend its assignment of errors accordingly is granted. National Lead, in its assignments of error in No. 90, however, assigns the orders contained in paragraph 7 of the decree on this subject as error and, in its briefs, argues that "The court erred in refusing to order royalty-free licensing of all patents

as defined in the judgment.” Accordingly, both proposals have been considered.

While it has been contended that, because of the decision of this Court in *Hartford-Empire Co. v. United States*, 323 U. S. 386, the District Court was not free in the present case to require the issuance of royalty-free licenses, we feel that, without reaching the question whether royalty-free licensing or a perpetual injunction against the enforcement of a patent is permissible as a matter of law in any case, the present decree represents an exercise of sound judicial discretion.

This is a civil, not a criminal, proceeding. The purpose of the decree, therefore, is effective and fair enforcement, not punishment. An understanding of the findings of fact is essential to an appreciation of the reasons for the decree.

Pure titanium pigment and its compounds represent a product of comparatively recent development but of major commercial value. The District Court found that—

“Titanium pigments are possessed of great opacity, hiding power and chemical inertness, and are largely displacing other pigments such as lithopone and white lead. Titanium pigments are used in the manufacture of paints and are also used in the manufacture of rubber, glass, paper, vitreous enamels, and many other products. . . .

“In and before 1920 there was no substantial trade or commerce in, and no commercial manufacture of, titanium pigments for use in paint, paper, rubber, or other products; . . .” Finding of Fact 33.

“The production of titanium pigments in the United States has risen from 100 tons (on the basis of pure TiO_2 content) in 1920 to approximately 110,000 tons in 1943 with a peak production of approximately 128,000 tons in the United States in

1941. The total production of titanium pigments and compounds outside of the United States has shown less growth, the estimated foreign production of titanium pigments and compounds being approximately 1,000 tons in 1920 and approximately 23,000 tons in 1938." Finding of Fact 35.

There are four producers of titanium products in the United States—National Lead, du Pont, American Zirconium (here called Zirconium), which is a subsidiary of Glidden Company, and Virginia Chemical Company (here called Virginia Chemical), which is a subsidiary of American Cyanamid Company. National Lead and du Pont have cross-licensed each other under their respective patents. Zirconium entered the field in 1935 with licenses from National Lead and du Pont, but the National Lead license has been canceled. Virginia Chemical entered the field in 1937 with a license from du Pont. Finding of Fact 42.

National Lead has assets of over \$100,000,000 and is the largest manufacturer of titanium pigments and compounds not only in the United States but in the world. In 1943 it manufactured and sold 76.5% of the composite pigments and 46.4% of pure TiO_2 made in the United States. Finding of Fact 3. Du Pont is one of the largest chemical companies in the United States with assets of over \$1,000,000,000. It is one of the largest manufacturers of titanium pigments in the United States. In 1943 it manufactured and sold approximately 23.5% of the composite pigments and 45.1% of pure TiO_2 made in the United States. Finding of Fact 9.

National Lead took an early lead in promoting the commercial manufacture and use of titanium pigments. In 1920 it acquired an interest in The Titanium Pigment Company, Inc., which had been organized by the Titanium Alloy Manufacturing Company at Niagara Falls, New York. It made use of a patented process developed

by Barton and Rossi. At about that time, a Norwegian chemist, Gustav Jebsen, made similar investigations but along different lines in Norway. He and his associates perfected a patented means for producing relatively pure titanium dioxide by a process much less costly than that in use at Niagara Falls. These associates had not, however, perfected processes for the manufacture of composite pigments. Finding of Fact 33. In about 1922, Joseph Blumenfeld, a chemist and managing director of a French company, obtained patents relating to the manufacture of titanium compounds. Finding of Fact 34.

On July 30, 1920, The Titanium Pigment Company, Inc., (affiliated with National Lead) and Titan Co. A/S (representing the Jebsen interests) entered into an agreement which is still uncanceled. Its principles became the basis for more than 60 subsequent agreements and for an international cartel⁵ in titanium pigments. The es-

⁵ "Cartels have been defined by two of the foremost members and advocates of such bodies. In the words of Sir Alfred Mond, organizer of Imperial Chemical Industries:

"I use the word cartel to include fusion, pooling arrangement, quota arrangement and price convention, because a cartel is protean in its form. . . . In an ultratechnical way, a cartel might be defined as a combination of producers for the purpose of regulating, as a rule, production, and, frequently, prices. . . ."

"In the words of Sir Felix J. C. Pole, chairman of Associated Electrical Industries, Ltd.:

"A cartel or association usually means an association by agreement of companies or sections of companies having common interests. It is designed to prevent extreme or unfair competition and allocate markets, and it may also extend to interchange of knowledge resulting from scientific and technical research, exchange of patent rights, standardization of products, etc. Competition is not eliminated, but it is regulated. Competition in quality, efficiency, and service takes the place of the crude method of price cutting.'" Monograph No. 1, Subcommittee on War Mobilization of the Committee on Military Affairs, U. S. Senate, 78th Cong., 2d Sess., Part I, p. 1. Quoted also in *United States v. National Lead Co.*, 63 F. Supp. 513, 523, note 5.

sential features of this agreement are stated in Finding of Fact 44 and in the opinion of the District Court, 63 F. Supp. at 517-518.

Briefly stated, it applied to a licensed field, defined as including all substances containing above 2% of titanium unless containing by weight more than 5% of a metal other than titanium in its purely metallic form. It applied to all apparatus, methods and processes useful in obtaining or manufacturing such substances both in the titanium and in the titanium compound field.

Both parties agreed to grant and accept a license, exclusive of all others including the licensor, under all "existing or future" patents of the licensing party. They divided the globe territorially. The American company was to have the North American continent. The Norwegian company was to have the rest of the world, except that reciprocal, nonexclusive rights of sale were reserved for both companies in South America.

Detailed provision was made for exchange of copies of applications for patents filed by the parties or their other licensees. Neither party was ever to question or contest the validity of any patent of the other under which it was licensed within the field described.

The American company became the exclusive agent for the Norwegian company in North America and vice versa outside of North and South America. Sales were to be at prices and on terms determined by the agent. Notwithstanding these agencies, however, importations of "finished articles"—that is, paint, paper, rubber, glass, etc.—containing titanium products of the principal, its licensees or sublicensees, would be permitted provided such products did not constitute such an important part of such finished articles that sales within the agent's territory would interfere substantially with the agent's sales of its own titanium products.

Each party would impart semiannually to the other information in detail as to knowledge obtained in and ap-

plicable to the "licensed field," and would permit the other to inspect and study operations in its plants (exclusive of research laboratories). The reciprocal grants of exclusive licenses would extend to December 31, 1936, and thereafter for periods of ten years each, with provision for termination by notice to be given at least five years before the end of any such period. In particular, so long as each company held an exclusive license from the other under this agreement, it would have the right to grant licenses under its own patents, and sublicenses under the other's patents, on the condition, nevertheless, that every such licensee or sublicensee would grant to the party to the 1920 agreement (other than its licensor), its patent rights in the "licensed field" identical in character, territorial scope, and duration to those given by its licensor to such other party under the 1920 agreement, and would impart technical information to such other party in the same manner and to the same extent as its licensor.

In 1929, the obligations of Titan Co. A/S under this agreement were assumed by Titan Inc. and, in 1936, the obligations of The Titanium Pigment Company, Inc., were assumed by National Lead.

Other companies throughout the world joined in carrying out this program to restrain international commerce and to establish an international combination or conspiracy in restraint of trade. The complaint in the present case lists many of these foreign companies as co-conspirators with National Lead, Titan Inc. and du Pont, but it does not attempt to make such co-conspirators parties defendant. The District Court recognized that it did not have jurisdiction over such co-conspirators and found in that circumstance one of its difficulties in effectively restraining National Lead, Titan Inc. and du Pont from further violations of the Sherman Antitrust Act,

pursuant to this international as well as domestic program. To accomplish this purpose, the District Court has adjudged these agreements to be unlawful and it has canceled them. In addition, it has enjoined all three defendants, National Lead, Titan Inc. and du Pont, from further performance of any of the provisions of such agreements and of any agreements amendatory thereof or supplemental thereto. Pars. 5 and 6 of the decree, 63 F. Supp. at 533-534.

National Lead acquired an 87% interest in Titan Co. A/S, Jebsen retaining 13%. The District Court found that "The intended purpose of the acquisition of control of TAS by NL was to utilize TAS and the contract of 1920 to further control competition in the manufacture of titanium pigments and compounds in all markets of the world including the United States." Finding of Fact 47.⁶

⁶ "This purpose was accomplished. The defendant NL and TAS agreed to have TAS and subsequently defendant Tinc form in each of the important industrial countries of the world, in association with a local corporation or firm which contemplated the manufacture and sale of titanium pigments and compounds or which could contribute to the technical or commercial development or which threatened to be a serious competitor of NL and TAS, a new company in which NL or TAS were to have a part interest. Any new company so formed was to be given certain territory in which it would have the exclusive right to manufacture and sell titanium pigments and compounds free from any exports into said territory by NL. The new company so organized was to refrain from competing with NL in its territory (the United States and other countries of North America) or in the territory of any other company associated with NL. TAS and subsequently defendant Tinc were to make said contracts providing for the formation of the new companies and NL was to be bound to adhere to all of the territorial restrictions placed on TAS and subsequently defendant Tinc in such contracts by virtue of contract Exhibit A. [The agreement of July 30, 1920.] All the present and future patents belonging to NL or TAS or any of the companies associated with either in the formation of such new companies, as well as those of the new companies to be organized, were

While this combination and conspiracy in restraint of interstate and foreign commerce thus was developing from 1920 to 1931, with National Lead and Titan Inc. at its center, du Pont was unconnected with it. Du Pont had initiated independent, but unsuccessful, efforts to develop, through research, a new and patentable commercially feasible process in this field. It became convinced that if it were to undertake the manufacture and sale of titanium pigments as a development of its white pigment business, it would be necessary to enter the field as promptly as possible through the acquisition of the patents and of the going business of Commercial Pigments Company. That company had been formed by Commercial Solvents Corporation in 1928 and had acquired the Blumenfeld and other patents in the United States relating to the manufacture and sale of titanium pigments and compounds. It was operating a plant in Baltimore, Maryland, where it manufactured pure TiO_2 pigment only and sold it in competition with the The Titanium Pigment Company, Inc. (the affiliate of National Lead). In July, 1931, du Pont, through its subsidiary, Krebs Pigment & Color Corporation, acquired all of the assets and assumed some of the obligations of Commercial Pigments Company. It thus continued and, in fact, increased its competition in the titanium pigment field against National Lead. Findings of Fact 70, 12, 10 and 71.

“Both NL and DP in good faith claimed that each infringed certain of the other’s titanium pigment patents and both in good faith denied such infringement claiming, among other things, that the patents alleged to be infringed were of doubtful validity. NL and DP agreed in October, 1932, that the validity

to be licensed exclusively to NL for North America and to the new companies to be organized for their respective exclusive territories and to TAS and subsequently defendant Tinc for the rest of the world.” Finding of Fact 48.

of the patents claimed to be infringed should not be questioned except as a last resort and that they should try to arrive at a general understanding." Finding of Fact 72.

Finally, in 1933, The Titanium Pigment Company, Inc. (by that time a 100% subsidiary of National Lead), and Krebs Pigment & Color Corporation (subsidiary of du Pont) were the only producers of titanium pigments in the United States. The 1920 agreement, however, prevented The Titanium Pigment Company, Inc. (National Lead), from entering into a contract with Krebs Pigment & Color Corporation (du Pont) unless the latter subscribed to the provisions of the 1920 agreement. Such a subscription would have required an agreement by Krebs (du Pont) not to export into the territories of National Lead's foreign associates, and an agreement to grant to National Lead's foreign associates exclusive licenses under all of Krebs' (du Pont's) present and future patents for titanium pigments and compounds in the territories of the foreign associates. Finding of Fact 73. After extensive negotiations, National Lead and du Pont formulated an agreement in writing, dated as of January 1, 1933, which was executed August 28, 1933. It is summarized in Finding of Fact 73 and in the opinion of the lower court, 63 F. Supp. at 520-521. By its terms, it provided for cross-licensing but did not provide for the exclusive licensing and restrictive territorial and agency agreements specified in the 1920 program. Certain foreign associates of National Lead, particularly Interessengemeinschaft Farbenindustrie Aktiengesellschaft (usually referred to as I. G. Farbenindustrie), insisted upon some such commitment from du Pont or its subsidiary. This insistence never was abandoned. After further negotiations and an exchange of letters, all as set forth in full in Finding of Fact 73 and in the opinion of the District Court, 63 F. Supp. at 528-529, some understanding was reached as to the future con-

duct of du Pont, or of its subsidiary. On the strength of this, I. G. Farbenindustrie agreed to the situation. On the basis of all the evidence, the District Court found that—

“DP, through Rupperecht [President of Krebs Pigment & Color Corporation] and Krebs [the corporation], by these assurances and Exhibit E [the agreement dated as of January 1, 1933], joined the conspiracy found herein to exist between, NL and its foreign associates. DP's status rights and obligations were different from those of the other members of the combination. DP did not thereafter withdraw.” Finding of Fact 73.

That finding, which we accept, throws important light upon the conditions to which the decree is to be applied. Furthermore, although National Lead and du Pont exchanged technical information relating to the manufacturing or use of titanium pigments or compounds from about April, 1932, until April, 1940, this exchange was discontinued May 1, 1940. The agreement of 1933 between The Titanium Pigment Company, Inc., and Krebs Pigment & Color Corporation which then had been assumed by National Lead and du Pont, respectively, was amended on January 1, 1941, to eliminate provisions for the exchange of technical information. Finding of Fact 75. It was further amended to include extender pigments, which theretofore had been included by implication and practice. Finding of Fact 76. After January 1, 1941, patent applications were to be available between National Lead and du Pont only after six months from the date of their filing, instead of immediately. Finding of Fact 77.

“From 1933 on there was active competition between NL and DP for customers. There has been a vast increase in sales; and repeated reductions in

the price of titanium pigments have taken place and a very few increases. DP entered the titanium pigment business in 1931 and since that date it has made frequent plant expansions for the manufacture of pure and composite TiO_2 and its production increased from 20,027 tons in 1935 to 50,674 tons in 1941 and then decreased to 42,843 tons in 1943.

"NL and DP have endeavored to match each other's titanium products; but each also manufactures certain titanium pigments having special applications not manufactured by the other.

"There is no allocation of territory or customers between NL and DP; and each maintains a large, highly trained technical sales force engaged in endeavoring to sell titanium pigments. To a very large extent the salesmen of the two companies are chemists whose contact with consumers (that is, manufacturers of paint, rubber, glass, etc.) consists in endeavoring to demonstrate that their products merit acceptance on the basis of technical superiority. The buyers of titanium pigments are mainly well-informed, experienced purchasing agents. NL and DP sell for identical prices; there is no evidence that such price identity is the product of agreement or collusion." Finding of Fact 78.

These findings disclose the special conditions which confronted the District Court in framing its decree. They disclose a vigorous, comparatively young, but comparatively large, world-wide industry in which two great companies, National Lead and du Pont, now control approximately 90% of the domestic production in substantially equal shares. The balance of that production is in the hands of two smaller companies. Each of these is affiliated with larger organizations, not parties to this case. The findings show vigorous and apparently profitable competition on the part of each of the four producers,

including an intimation that the smaller companies are gaining ground rather than losing it. Keen competition has existed both before and after the elimination, by the 1933 agreement and understanding, of certain patent advantages from among the weapons of competition. The competition between National Lead and du Pont has been carried into this Court where today National Lead supports the Government's proposal for royalty-free licenses, while du Pont argues strongly for a complete dismissal of the proceedings and contends that, in any event, if there are to be compulsory licenses they at least should require payment of uniform, reasonable royalties as provided in the present decree.

Assuming, as is justified, that violation of the Sherman Act in this case has consisted primarily of the misuse of patent rights placing restraint upon interstate and foreign commerce, that conduct is not before this Court for punishment. It is brought before this Court in order to secure an order for its immediate discontinuance and for its future prevention. That will be accomplished largely through the strict prohibition of further performance of the provisions of the unlawful agreements. Further assurance against continued illegal restraints upon interstate and foreign commerce through misuse of these patent rights is provided through the compulsory granting to any applicant therefor of licenses at uniform, reasonable royalties under any or all patents defined in the decree. Such patents include not only the patents and patent applications listed in the appendix to the decree, but also, among others, all patents which cover any titanium pigments or any process for the manufacture of such pigments issued to, or acquired by, any of the appellant companies within five years from the date of the decree. It applies also to all such patents of which any of the appellant companies shall become the exclusive licensee within such five years with power to sublicense.

On the facts before us, neither the issuance of such licenses on a royalty-free basis nor the issuance of a permanent injunction prohibiting the patentees and licensees from enforcing those patents has been shown to be necessary in order to enforce effectively the Antitrust Act. We do not, in this case, face the issue of the constitutionality of such an order. That issue would arise only in a case where the order would be more necessary and appropriate to the enforcement of the Antitrust Act than here. In the absence of a showing to the contrary, it is obvious that some patents should entitle their owners to receive higher royalties than others. Also, it is clear that several patents, each of equal value, ordinarily should entitle their owners to a larger total return in royalties than would one of them alone. It follows that to reduce all royalties automatically to a total of zero, regardless of their nature and regardless of their number, appears, on its face, to be inequitable without special proof to support such a conclusion. On the other hand, it may well be that uniform, reasonable royalties computed on some patents will be found to be but nominal in value. Such royalties might be set at zero or at a nominal rate. The conclusion, however, would depend on the facts of each case.

Recognizing the difficulty of computing a reasonable royalty,⁷ nevertheless, that conception is one that already has been recognized both by Congress and by this Court.⁸

⁷ *Hearings before Committee on Patents on H. R. 23,417*, 62d Cong., 2d Sess. (1912), Part XII, pp. 10-11; H. R. Rep. 1161, 62d Cong., 2d Sess. (1912), Part 2, p. 8; Report of Subcommittee of the American Bar Association appointed to consider the King Bill, S. 383, 74th Cong. (1935), p. 38.

⁸ A recent recognition of a reasonable royalty test is contained in Chapter 726 of the 79th Congress, 2d Session:

" . . . upon a judgment being rendered in any case for an infringement the complainant shall be entitled to recover general damages which shall be due compensation for making, using, or selling the

The term frequently has been employed in Sherman Anti-trust case consent decrees.⁹ In the present case, the royalties charged to and paid by Zirconium and Virginia Chemical provide enough guidance to indicate that the reasonableness of future royalties may be determined in this case with less difficulty than often might confront a court faced with such a task. Cf. *Sinclair Refining Co. v. Jenkins Petroleum Process Co.*, 289 U. S. 689,

invention, *not less than a reasonable royalty therefor*, together with such costs, and interest, as may be fixed by the court. . . ." (Italics supplied.) R. S. § 4921, as amended August 1, 1946, 60 Stat. 778, 35 U. S. C. A. § 70 (Supp. 1946), relating to the power of courts to grant injunctions and estimate damages.

The most recent and outstanding example of its recognition is in *Hartford-Empire Co. v. United States*, 323 U. S. 386, 413-417.

In patent accounting suits, where the profits or damages cannot be ascertained and no standard of comparison is available, the court may allow a reasonable royalty.

"But, as the patent had been kept a close monopoly, there was no established royalty. In that situation it was permissible to show the value by proving what would have been a reasonable royalty, considering the nature of the invention, its utility and advantages, and the extent of the use involved. Not improbably such proof was more difficult to produce, but it was quite as admissible as that of an established royalty." *Dowagiac Mfg. Co. v. Minnesota Plow Co.*, 235 U. S. 641, 648.

See also, *Sheldon v. Metro-Goldwyn Corp.*, 309 U. S. 390, 404; *Suffolk Co. v. Hayden*, 3 Wall. 315, 320; 3 Walker on Patents § 833 (Deller's ed. 1937) (*Id.* 1945 pocket supp.); 56 Yale L. J. 77.

⁹ *United States v. Owens-Illinois Glass Co.*, CCH Trade Reg. Serv. ¶ 57,498 (D. C. N. D. Calif., 1946); *United States v. American Air Filter Co.*, CCH Trade Reg. Serv. ¶ 57,492 (D. C. W. D. Ky. 1946); *United States v. Libbey-Owens-Ford Glass Co.*, CCH Trade Reg. Serv. ¶ 57,489 (D. C. N. D. Ohio 1946); *United States v. Diamond Match Co.*, CCH Trade Reg. Serv. ¶ 57,456 (D. C. S. D. N. Y. 1946); *United States v. General Elec. Co.*, CCH Trade Reg. Serv. ¶ 57,448 (D. C. N. J. 1946); *United States v. Bendix Aviation Corp.*, CCH Trade Reg. Serv. ¶ 57,444 (D. C. N. J. 1946); *Crosby Steam Gage & Valve Co. v. Manning, Maxwell & Moore*, CCH Trade Reg. Serv. ¶ 57,336 (D. C. Mass. 1945).

697-698. The growing strength of those two royalty-paying licensees has demonstrated that royalty-free licenses have not been essential to such progress even under past conditions. Finally, the District Court, under paragraphs 7 and 13 of the decree, will retain sufficient jurisdiction to enable it to vacate or modify its orders fixing reasonable royalty rates if it finds such action to be necessary or appropriate. We hold, therefore, that paragraphs 4 and 7 of the decree should not be modified either so as to provide for compulsory royalty-free licenses or so as to enjoin the patentees or licensees from enforcing the terms of the patents involved.

B. Request to add a provision requiring National Lead and du Pont each to submit, within a year, a plan for the divestiture by it of one of its two principal titanium pigment plants, together with the related physical property. This request is urged by the Government in No. 89. It is strongly opposed both by National Lead and du Pont. The issue was discussed at length by the parties and the District Court in the reported conferences as to the form of the decree.

We believe there is neither precedent nor good reason for such a requirement. The violation of the Sherman Act is found in these cases in the patent pooling and in the related agreements restraining interstate and foreign commerce. There is neither allegation in the complaint nor finding of fact by the District Court that the physical properties of either National Lead or du Pont have been acquired or used in a manner violative of the Sherman Act, except as such acquisition or use may have been incidental or related to the agreements above mentioned. The cancellation of such agreements and the injunction against the performance of them by the appellant companies eliminate them. Paragraph 8 of the decree goes further. It requires National Lead and its subsidiary, Titan Inc., to present, within one year, a plan for

divesting themselves of their stockholdings and other financial interests in certain foreign corporations, or for the purchase of the entire stockholdings and other financial interests, direct or indirect, in such corporations or any of them. Such a plan, which was required also to provide for its completion within two years from the date of the decree, will go as far toward divestiture as the findings of fact indicate should be necessary to make the decree effective.

There is no finding of fact, and apparently no evidence, showing that the respective principal titanium plants of National Lead or du Pont were acquired in violation of law, that they ever were separately owned or operated, or that they are adapted to such operation. Presumably, the requested divestiture would be for the purpose of providing four instead of two independent major competing plants in the titanium pigment industry. However, there is no showing whether or not the two licensees, Zirconium (subsidiary of Glidden Company) and Virginia Chemical (subsidiary of American Cyanamid Company), may not be able to develop, under the decree, even more substantial competition against National Lead and du Pont than would new concerns operating the divested plants. No comparable precedents have been presented.

There is no showing that four major competing units would be preferable to two, or, including Zirconium and Virginia Chemical, that six would be better than four. Likewise, there is no showing of the necessity for this divestiture of plants or of its practicality and fairness. The findings of fact have shown vigorous and effective competition between National Lead and du Pont in this field. The general manager of the pigments department of du Pont characterized the competition with Zirconium and Virginia Chemical as "tough" and that with National Lead as "plenty tough." Such competition suggests that the District Court would do well to remove

unlawful handicaps from it but demonstrates no sufficient basis for weakening its force by divesting each of the two largest competitors of one of its principal plants. It is not for the courts to realign and redirect effective and lawful competition where it already exists and needs only to be released from restraints that violate the antitrust laws. To separate the operating units of going concerns without more supporting evidence than has been presented here to establish either the need for, or the feasibility of, such separation would amount to an abuse of discretion.

C. Request to add a provision requiring National Lead and du Pont to furnish to any applicant, at a reasonable charge, during a period of three years, technical information desired by the applicant relating to the methods and processes for manufacturing titanium pigments. This would supersede the provision now in the decree which, during a period of three years, makes available to a licensee certain information in writing, at a reasonable charge, as to the methods and processes used by his licensor at the date of the license. This is urged by the Government in No. 89 and opposed by National Lead and du Pont. Du Pont, in No. 91, goes further and urges the omission of all requirements compelling it to furnish technical information.

The request by du Pont to eliminate this requirement altogether is based, in part, upon the experience of the appellant companies. Du Pont emphasizes the fact that the titanium pigment industry has matured and that, since about May 1, 1940, the exchange of technical information between National Lead and du Pont has ceased. Also, the agreement between them which called for the exchange of technical information was amended January 1, 1941, to eliminate the provisions requiring such exchange. Finding of Fact 75. Du Pont argues that neither Zirconium, which entered the industry

in 1934, nor Virginia Chemical, which entered the industry in 1935, ever exchanged technical information with du Pont or received any from du Pont. However, Finding of Fact 84 shows that, as to National Lead in 1935—

“. . . NL and Zirconium cross licensed each other under all patents in the titanium pigment field, then owned or thereafter acquired, and both parties agreed to exchange technical information and experience. . . .

“NL did render some engineering assistance to Zirconium in connection with the installation and use of its processes and imparted some technical information but frequently it refused to convey such technology to Zirconium on the ground that it was prevented by other agreements from so doing.

“On occasions before 1940 there was exchange of information between DP and NL relative to Zirconium’s production.”

Virginia Chemical was not licensed under National Lead’s patents and apparently did not receive technical information from National Lead.

Finding of Fact 95, subparagraph 8, contains a further material finding, although this is disputed by du Pont:

“The defendants NL and DP secured a monopoly on technical information relating to the manufacture and use of titanium pigments and certain apparatus and equipment necessary to the manufacture of certain titanium pigments to the exclusion and detriment of other producers now engaged in the titanium pigment business in the United States; when NL and DP ceased exchanging technical information, the titanium pigment business was a mature industry.”

The requirement for the exchange of technical knowledge under the present decree is merely that included in paragraph 7, which is as follows:

“During a period of three years from the date of this decree such license or reciprocal license may at the option of either party contain a provision for the imparting in writing at a reasonable charge, by the licensor to the licensee, of the methods and processes used by the former at the date of the license in its commercial practice under the licensed patents in connection with the production of titanium pigments.”

The limited scope of this access to technical information is apparent. On the other hand, there is reason to believe that the knowledge which thus can be secured may be vital in giving value to the compulsory licenses which are a central feature of the decree. The information is put upon a basis comparable to that of a license. Just as a licensee is required to pay a uniform, reasonable royalty for the privilege of operating under the patent, so, also, he is required to pay a reasonable charge for the information as to methods and processes which may be important to him in his commercial practice under the licensed patents.

The need for technical information to accompany patent licenses in this field, at least where desired by a newcomer, is testified to repeatedly. If there be such a need, the reasonableness of this limited availability of it as stated in the decree is hard to deny. Findings of fact evidencing the importance of such information include the following:

“NL wished to pool with DP all their patents and technical information relating to the manufacture or use of titanium pigments in the United States in

order to settle its patent controversies with DP and to obtain access to DP's patents and technical facilities and jointly to control and dominate the manufacture and sale of titanium pigments and compounds; Both TP and Krebs began to exchange extensively technical information relating to the manufacture and use of titanium pigments in 1932 and the information so exchanged related to much more than any alleged claims of patent infringement by either company. Blumenfeld and his foreign associates furnished technical aid and assistance to Krebs at its instance from August 1931 until the approximate date at which TP and Krebs commenced the exchange of technical information in 1932." Finding of Fact 72.

"DP and NL exchanged technical information relating in any manner to the manufacturing or use of titanium pigments or compounds from about April, 1932, until April, 1940." Finding of Fact 75.

"In entering into the agreement, Ex. E [the agreement of July 1, 1933], NL had several purposes:

1) For about a year prior to the making of Ex. E officials of NL had been concerned by the early expiration dates of many of the patents upon which NL relied. By exchanging patents and technology with DP, a large and powerful corporation, possessed of great research facilities, NL expected to strengthen the patent monopoly of NL and DP jointly, as against newcomers in the titanium pigment business.

"DP's purposes in entering into the agreement Ex. E were:

3) To obtain access to NL's technical experience and patents in the titanium pigment field as well

as the patents and the experience of NL's foreign associates.

"The necessary effects of the agreement Ex. E. and of DP assurances have been

- 1) The achievement of NL purposes.
- 2) The achievement of DP's purposes.
- 3) To give NL and DP together domination and control over the titanium pigment business in the U.S." Finding of Fact 79.

National Lead on this point now takes a middle ground. Apparently it supports the present provision in the decree and opposes its expansion as proposed by the Government. It expressly endorses the present provisions if the decree is amended so as to put the compulsory licenses on a royalty-free basis. If it approves this grant of access to technical information on that basis, it hardly can object to it in connection with licenses on a uniform, reasonable royalty basis.

The fact that this Court eliminated, without discussion, paragraph 24 (c) from the *Hartford-Empire* decree is not controlling here. *Hartford-Empire Co. v. United States*, *supra*, 413, 418. The fact that the violations of the Anti-trust Act may have been more reprehensible in that case than here is not persuasive because this provision is not and should not be punitive. The justification for the compulsory imparting of methods and processes rests upon its appropriateness and upon the necessity for it in providing an effective decree. In the *Hartford-Empire* decree, paragraph 24 (c) proposed to make available, to any licensee under paragraph 24 (a) (without royalties), or under paragraph 24 (b) (with reasonable royalties), at cost, plus a reasonable profit, "all drawings and patterns 'relating to the machinery or methods used in the manufacture of glassware' embodied in the licensed in-

ventions" *Id.* at 413-414. This Court, in that case, modified paragraphs 24 (a) and 24 (b) and deleted paragraph 24 (c). In the absence of a statement of this Court's reasons for the deletion of paragraph 24 (c), it cannot be assumed that, by such deletion, it announced its disapproval, in all future decrees, of provisions requiring the supplying of technical information to licensees at a reasonable charge.

It may well be that the District Court, in the present case, took into consideration the argument made by National Lead that, in this field, "The product claims cover practically all such improved titanium pigments; thus, of 23 different grades of titanium pigments (i. e. different products) sold by NL, 21 are covered by unexpired patents." Finding of Fact 37. Therefore, the imparting to the newcomer of methods and processes covered by the decree might be particularly important to him in entering this industry where substantially all the commercial products are covered either by process or product patents.

Du Pont has presented a strong case against compelling it to make further disclosure of its technical information to its leading competitor, National Lead, in this comparatively mature technical industry, especially since the agreement of 1941 between these companies expressly terminated their pre-existing agreement to supply such information. This argument does not apply, however, with comparable force, to the many other situations toward which this provision is directed. Under all the circumstances, and in view of the narrow limits written into the provision by the District Court, we believe that it represents a permissible exercise of judicial discretion. It is to be judged from the point of view of the public interest as well as that of the private interests concerned. That public interest requires that the court be permitted to produce the most effective and generally fair decree

that it can devise to give effect simultaneously to the antitrust laws and the patent laws.

This decision relies also on the permissible breadth of the District Court's discretion over the conditions under which technical information shall be required to be shared with the world. The attempt of the Government to throw the field of technical knowledge in the titanium pigment industry wide-open would reduce the competitive value of the independent research of the parties. It would discourage rather than encourage competitive research. It would be contrary to, rather than in conformity with, the policy of the patent laws now in force. Changes in the underlying policies of the patent laws frequently have been presented to Congress,¹⁰ but Congress, by its failure to accept those changes, has added to, rather than detracted from, the strength of the present and traditional patent policies.

D. Request to omit the provision that National Lead and du Pont, respectively, may make the grant of any license by either of them to an applicant under the decree conditioned upon the reciprocal grant of a license by the applicant, at a reasonable royalty, under certain described patents owned or controlled by such applicant. This is urged by the Government in No. 89 and opposed by the appellants companies.

The District Court, during the conferences on the terms of the decree, summarized the need for this provision by a concrete illustration of what it suggested might happen without it. It said:

¹⁰ H. R. 20,388, 60th Cong., 1st Sess. (1908); H. R. 11,796, 61st Cong., 1st Sess. (1909); H. R. 2930, 62d Cong., 1st Sess. (1911); H. R. 16,828, 62d Cong., 2d Sess. (1912); H. R. 23,417, as amended, 62d Cong., 2d Sess. (1912); H. R. 1700, 63d Cong., 1st Sess. (1913); H. R. 14,865, 63d Cong., 2d Sess. (1914); S. 2783, 70th Cong., 1st Sess. (1928); S. 2491, 77th Cong., 2d Sess. (1942).

"Otherwise you will arrive at a situation conceivably where Virginia Chemical would simply change places with du Pont in becoming the dominating factor in the industry under this extraordinary advantage of being able to take everything for itself and keeping everything that it has."

The District Court distinguished the present case from the *Hartford-Empire* case by showing that, in the latter, there had not been a similar reason for inserting the reciprocal requirement. In that case, the court was dealing with a licensor organization which had no use for patents except for the resulting control over licensing and, consequently, it would have derived no benefit from cross-licenses. The reciprocal clause includes an appropriate reference to future patents. As a five-year limit is put on the patents which will be subject to the compulsory license clause, under paragraphs 4 and 7 of the decree, so also the reciprocal licenses are limited by paragraph 7 to "patents covering titanium pigments or their manufacture, now issued or pending, or issued within five years from the date of this decree"

Here again, the provision is well within the discretion of the District Court in seeking means to fit the relief it grants to the needs of the particular case, always with due regard to the underlying public interest that is inherent in the antitrust and patent laws.¹¹

E. Request to omit the six-months' time limit imposed by the decree upon the options of American Zirconium Corporation and Virginia Chemical Corporation, respectively, to secure certain licenses under the decree. This is urged by the Government in No. 89. It is not discussed

¹¹ Provisions for reciprocal licensing have been incorporated in consent decrees. See *United States v. General Elec. Co.*, CCH Trade Reg. Serv. ¶ 52,777 (D. C. N. J. 1942); *United States v. American Bosch Corp.*, CCH Trade Reg. Serv. ¶ 52,888 (D. C. S. D. N. Y. 1942).

here in the briefs of the other parties. The effective date of the decree of October 11, 1945, was stayed and suspended, by the order of MR. JUSTICE REED entered January 2, 1946, pending determination of the present appeals to this Court, so that more than six months already have passed since the original date of the decree without prejudicing the rights of the parties affected. In view of such suspension and of the new effective date to be given to the decree, pursuant to the order of this Court, there will be ample time for the exercise of this option under its terms.

F. Request to modify the language of the decree so as to eliminate language which, it is claimed, enjoins normal and usual business arrangements between the appellant companies and other producers of titanium products. This is urged by National Lead in No. 90 and is opposed by the Government. The precise request is to strike from paragraphs 5 and 6 of the decree certain language shown in the margin of this text in italics and to insert in paragraph 6 the word "producer" at the point there shown in capital letters.¹² National Lead contends that the can-

¹² "5. The following agreements are hereby adjudged to be unlawful under Section 1 of the Sherman Act and each of them is hereby cancelled *and the defendants and each of them and all persons acting or claiming to act through, for or under them and all successors and subsidiaries of any of the defendants are hereby enjoined and restrained from the further performance of any of the provisions of said agreements and of any agreements amendatory thereof or supplemental thereto:* [followed by a list of the canceled agreements]'

"6. Each of the defendants and each of their directors, officers, agents, employees, successors and subsidiaries and all persons acting, or claiming to act under, through or for them or any of them are hereby enjoined and restrained (a) *from entering into, adhering to, maintaining or furthering, directly or indirectly, or claiming any rights under any contract, agreement, understanding, plan or program among themselves, the co-conspirators, or with any other person, partnership or corporation, which has as its purpose or effect the*

cellation of the agreements, as ordered in paragraph 5, and the injunction, as ordered in paragraphs 5 and 6, against the further performance or the continuation or renewal of the unlawful provisions thereof (namely, division of sales or manufacturing territory, allocation of markets, limitation of imports or exports, restrictions on use, etc.) will insure complete and effective relief without subjecting National Lead or du Pont to undue hardship and losses. Accordingly, National Lead states that it asks for the changes here indicated in the interest of promoting trade and competition in titanium pigments.

We agree, however, with the Government's interpretation that paragraph 5 deals solely with the future enforceability of existing contracts and that the deletion of the words requested by National Lead is not necessary in order to remove barriers to future contracts. Paragraph 6 deals with future contracts. Clause (a) enjoins the parties from entering into or adhering to any agreement, plan or program "which has as its purpose or effect the continuing or renewing of any of the agreements listed in paragraph 5" Since such agreements have been found to violate the Sherman Act, this provision imposes no unjustified restriction on National Lead's power to

continuing or renewing of any of the agreements listed in paragraph 5 hereof; (b) from entering into, adhering to, maintaining or furthering, directly or indirectly, any contract, agreement, undertaking, plan or program with any other producer or dealer relating to titanium pigments which has as its purpose or effect (1) to divide sales or manufacturing territories, (2) to allocate markets, (3) to limit or prevent United States imports or exports, (4) to grant to any third party any market as its exclusive territory, (5) to keep any third party out of any market; provided, however, that nothing contained in this subdivision (b) of this paragraph 6 shall prohibit any normal and usual arrangements between any defendant and its directors, officers, employees, agents, subsidiaries, or any PRODUCER, dealer or distributor, whether or not a co-conspirator; (c) from restricting any purchaser of titanium pigments in the use thereof."

contract. We find also no sufficient basis for inserting the word "producer" as requested in paragraph 6. If National Lead later can demonstrate that its right of contract has been unduly restricted, it may, under the terms of the decree, apply to the District Court for a modification of the judgment.

G. Request to omit the requirement that National Lead and Titan Inc., within one year, shall present to the District Court, for its approval, a plan for divesting themselves of their stockholdings and other financial interests in certain foreign companies or for the purchase of the entire stockholdings and interests, direct or indirect, in such companies or any of them. To accomplish this, National Lead and Titan Inc., in No. 90, urge the deletion of paragraph 8 from the decree.¹³ The Government opposes such deletion. The requirement imposed by paragraph 8 is merely that certain parties shall present to the District Court, within one year, a plan subject to its approval. That court, during the conferences on the terms of the decree, said: "In other words, the stock acquisitions were part and parcel of the territorial allocation agreements, and probably were a necessary element in the establishment of the territorial arrangement." We find ample reasons in the record for the action of the District Court in inserting paragraph 8 in the decree. It is related directly to the injunction against further performance of any of the provisions of the agreements listed in the decree as being in violation of the Sherman Act.

In thus disposing of the points relied upon in the respective appeals, the decree will remain as originally entered by the District Court, excepting only that, as a result of the dissolution of the stay and suspension of certain provisions of the decree contained in paragraphs

¹³ For paragraph 8, see note 4, *supra*.

DOUGLAS, J., dissenting in part.

332 U. S.

5, 8, 9, 10 and 11 thereof, which were granted pending determination of these appeals to this Court, the decree shall be deemed, for the purposes of those paragraphs and for the running of time thereunder, to take effect on the effective date of the mandate to be issued by this Court.

For the reasons set forth, the motion of the United States to amend its assignments of error is granted and the judgment of the District Court is

Affirmed.

MR. JUSTICE BLACK and MR. JUSTICE JACKSON took no part in the consideration or decision of these cases.

MR. JUSTICE DOUGLAS, with whom MR. JUSTICE MURPHY and MR. JUSTICE RUTLEDGE concur, dissenting in part.

I cannot agree that royalties should be charged on patents whose misuse has been so flagrant as to persuade us to approve compulsory licensing of all who desire to use the inventions. Nor do I think that the failure to provide for royalty-free licensing may be sustained as an exercise of the judicial discretion of the District Court. That would be the case if the District Court had been free to frame its decree unembarrassed by the ruling in *Hartford-Empire Co. v. United States*, 323 U. S. 386, 324 U. S. 570. In that case this Court modified an anti-trust decree so as to permit "reasonable" royalties on patents which had been ordered licensed without charge to all applicants. The language there used well might lead a court to the conclusion that royalty-free licensing is a remedy unacceptable as a matter of law.¹ In these

¹ "That a patent is property, protected against appropriation both by individuals and by government, has long been settled. In recognition of this quality of a patent the courts, in enjoining violations of the Sherman Act arising from the use of patent licenses, agree-

circumstances it is fair to assume that the action of the district judge in the present case was in deference to the *Hartford-Empire* rule rather than a reflection of his own judgment.²

The *Hartford-Empire* case presented the first instance, so far as I am aware, of the incorporation of a royalty-free licensing provision in an antitrust decree. Since the question is one of the greatest importance in the administration of the antitrust laws, and was not considered by the full Court,³ I think it remains an open one, except as applied to the *Hartford-Empire* case, and we are free to consider whether that case should be followed under the facts and circumstances here presented.

In the *Hartford-Empire* case the Court stressed the fact that Congress had not specifically authorized forfeiture of patents in antitrust actions. It thought that "if, as we must assume on this record, a defendant owns valid patents, it is difficult to say that, however much in the past such defendant has abused the rights thereby conferred, it must now dedicate them to the public."

ments, and leases, have abstained from action which amounted to a forfeiture of the patents.

"The Government urges that such forfeiture is justified by our recent decisions. . . . But those cases merely apply the doctrine that, so long as the patent owner is using his patent in violation of the antitrust laws, he cannot restrain infringement of it by others. We were not there concerned with the problem whether, when a violation of the antitrust laws was to be restrained and discontinued, the court could, as part of the relief, forfeit the patents of those who had been guilty of the violation. Lower federal courts have rightly refused to extend the doctrine of those cases to antitrust decrees by inserting forfeiture provisions." 323 U. S. pp. 415-416.

² He, indeed, stated on argument of a motion to determine reasonable royalties: "I would have liked to go along on the question of royalty-free patents, but I felt that I hadn't been given the green light on that."

³ The *Hartford-Empire* decision was four to two on this point.

323 U. S. p. 415. The difficulty with that argument is that it proves too much. For the Court was at the same time sanctioning compulsory licensing, a most serious inroad on patent rights. The patent law gives to the patentee or his assignee the "exclusive right to make, use, and vend the invention or discovery" R. S. § 4884, 35 U. S. C. § 40. If the antitrust court could not interfere with patent rights, then it could not order licensing on any terms, for mandatory licensing is hardly consistent with exclusive rights. Again, if the failure of Congress specifically so to provide prevents a court from directing royalty-free licensing, then by the same token the failure to provide for compulsory licensing is a bar to that relief also.

It is thus clear that the criterion for choosing the appropriate antitrust remedies cannot be found in Congressional silence. The task of putting an end to monopolistic practices and restoring competition is one of magnitude and complexity; Congress has authorized use of the broadest powers of equity to cope with it. Under a statute providing more detailed remedies than do the antitrust laws, we have held that an equity court may mould additional ones. See *Porter v. Warner Holding Co.*, 328 U. S. 395. And its powers under the antitrust laws, though not specifically enumerated, are ample to thwart the plans of those who would build illegal empires, no matter how imaginative their undertakings or subtle their techniques. The power of the court is not limited to the restraint of future transgressions. The impairment of property rights is no barrier to the fashioning of a decree which will grant effective relief. *United States v. Union Pacific R. Co.*, 226 U. S. 470, 476-477. Divestiture or dissolution may be ordered in spite of hardship, inconvenience, or loss. *United States v. Crescent Amusement Co.*, 323 U. S. 173, 189. Devices or instrumentalities which may be used for legitimate ends may

nevertheless be outlawed entirely where they have been employed to build the monopoly or to create the restraint of trade. *United States v. Crescent Amusement Co.*, *supra*, pp. 187-188. For the aim of the decree is not only to prevent a repetition of the unlawful practice but to undo what was done, to neutralize power unlawfully acquired, to prevent the defendants from acquiring any of the fruits of the condemned project. *Standard Oil Co. v. United States*, 221 U. S. 1, 78.

If that is to be done here, I think we must do more than forbid further expansion of the existing monopolistic situation. The defendants have unlawfully acquired control and domination over this industry to the exclusion of competitors. This control was obtained in part through the unlawful acquisition and use of patents. As stated by the District Court, "These patents, through the agreements in which they are enmeshed and the manner in which they have been used, have, in fact, been forged into instruments of domination of an entire industry. The net effect is that a business, originally founded upon patents which have long since expired, is today less accessible to free enterprise than when it was first launched." 63 F. Supp. 513, 532. If defendants are allowed royalties on those patents, they do, indeed, reap dividends from their unlawful activities. As stated in a dissent in the *Hartford-Empire* case, "Every dollar hereafter, as well as heretofore, secured from licenses on the patents illegally aggregated in the combination's hands is money to which the participants are not entitled by virtue of the patent laws or others. It is the immediate product of the conspiracy." 323 U. S. p. 443.

But beyond that is the effect on the industry. Here defendants have been in a commanding and impregnable position. They have dominated the field and suppressed competition. If competition is to be restored strong measures must be adopted to provide the maximum op-

portunity for new ventures to compete with the established giants of the industry. It is here that the major vice of permitting royalties on the licensed patents becomes apparent. Each dollar of royalty adds a dollar to the costs of the new competitor and gives the established licensor another dollar with which to fight that competition. As stated by National Lead in its brief before this Court:

“National and du Pont not only compete with their licensees but dominate the titanium industry. A requirement of uniform, reasonable royalties in no way frees competition because, no matter what the royalty may be, *in this industry* a licensee required to pay more than its licensor will be at a competitive disadvantage.”

“Compulsory licensing alone would not be enough to restore the industry to a healthy, competitive condition. If National and du Pont are permitted to receive royalties on their existing patents, they will still be in position to dominate the industry.”

If National Lead, the world's largest producer of titanium pigments, expects to find itself at a competitive disadvantage as a result of reasonable royalty licenses, what can be the probable fate of newcomers or existing independents of small stature? ⁴

The decree approved by the Court stops short of granting effective relief. Divestiture is refused. Compulsory licensing is ordered, but only to those who are willing reciprocally to license use by the defendants of their patents.

⁴ It must be remembered that one of the consequences of the unhealthy monopolistic condition in the industry has been a dearth of the ordinary patent litigation. The burden of testing potentially invalid patents will thus be placed on the first enterprise unwilling to pay the royalties.

319

DOUGLAS, J., dissenting in part.

In this additional respect the decree will enable the large established companies to strengthen their dominant position. To get the benefits of the decree an independent must give up one of his few competitive advantages—the exclusive right to use such patents as he may possess. These provisions, plus the additional requirement of royalties on the misused patents, even though those royalties be “reasonable,” greatly increase the odds against restoration of competition in this industry.

Except as to the matters mentioned, I join in the opinion of the Court.

RODGERS v. UNITED STATES

APPEAL FROM THE DISTRICT COURT OF APPEALS FOR THE SECOND CIRCUIT.

Argued October 15, 1947—Decided September 10, 1948.

Patents issued under the Agricultural Adjustment Act of 1938, as amended, for marking cotton in blocks of farm marketing areas. Held pursuant to issue do not bear weight for the period between the date the patents issued and the date judgment rendered thereon. Pp. 375-376.

254 U.S. 521, reversed.

The District Court rendered judgment for plaintiff pursuant to the Agricultural Adjustment Act of 1938, as amended, plus interest from the date the penalties became due to the date of judgment. The Circuit Court of Appeals affirmed. 168 F.2d 733. This Court granted certiorari. 331 U.S. 791. Reversed, p. 376.

Opinion submitted on brief per curiam.

Stanley M. Goldberger argued the cause for the United States. With him on the brief were Solicitor General Tolson, Assistant Attorney General Bennett J. Stephens, David, Robert W. Gorman and W. Carroll Hunter.

REPORT OF THE COMMISSION

In the additional report the Commission will study the legal and economic aspects of the proposed legislation and its effect on the industry. To get the benefits of the proposed legislation, the Commission will study the legal and economic aspects of the proposed legislation and its effect on the industry.

The Commission will study the legal and economic aspects of the proposed legislation and its effect on the industry. The Commission will study the legal and economic aspects of the proposed legislation and its effect on the industry.

The Commission will study the legal and economic aspects of the proposed legislation and its effect on the industry. The Commission will study the legal and economic aspects of the proposed legislation and its effect on the industry.

If National Lead, the world's largest producer of lead, is to remain afloat, it must find itself a competitor in the market. The Commission will study the legal and economic aspects of the proposed legislation and its effect on the industry.

The Commission will study the legal and economic aspects of the proposed legislation and its effect on the industry. The Commission will study the legal and economic aspects of the proposed legislation and its effect on the industry.

The Commission will study the legal and economic aspects of the proposed legislation and its effect on the industry. The Commission will study the legal and economic aspects of the proposed legislation and its effect on the industry.

The Commission will study the legal and economic aspects of the proposed legislation and its effect on the industry. The Commission will study the legal and economic aspects of the proposed legislation and its effect on the industry.