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The international ramifications of Germany's cartel system, 1920-1955

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THE INTERNATIONAL RAMIFICATIONS OF GERMANY'S CARTEL SYSTEM-
1920 - 1955

A Thesis
Presented to
the Faculty of the Department of Economics
College of the Pacific

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
Nick James Mariani
May 1956

To John Peter Gainza
whose moral and material sustenance
was of inestimable value
in the consummation of this study.

The author wishes to thank Dr. Charles Norman
and Dr. Edwin Ding of the Department of Economics for
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CHAPTER I

INTRODUCTION

Scarcely over a generation ago, the term cartel was not a familiar term in the lexicon of the American people. Since that time, however, it has been projected into the limelight by investigations of government bodies and private individuals, both in the United States and abroad. It is a term which evokes disparate reactions whenever it is uttered. In the United States, it is a term which usually manifests disapprobation whenever it is discussed by teachers and laymen. In Germany, it is usually eulogized by businessmen and the man on the street as an orderly form of economic organization; in the remainder of Europe and in England such complete endorsement is lacking, though the majority of the people view cartels in a favorable light.

This divergence of opinion holds true in respect to cartels and their actions under the law. In Germany and the majority of European nations, cartels are recognized as legal entities and are not amenable to persecution because of their functions. In contradistinction to this view, the laws of the United States regard cartels as organizations in the restraint of trade, and thus are subject to indictments under the antitrust laws. The only exception to these laws are certain government approved associations for

the carrying on of export trade, these groups being exempt under the Webb-Pomerene Act of 1918.

Whatever the merit or demerit of cartels their existence and functions are of consequence to every nation, and directly or indirectly to almost every individual in the world, since their operation affects the production, distribution and consumption of the world's goods and services. The economic and political effects of cartels at home and abroad are of such importance as to justify a careful study of the subject.

At the present time, many scholars, statesmen and laymen see in the cartel system a potential threat to political democracy and a nucleus for the burgeoning of a totalitarian system. The relationship which these observers see in correlating cartels with totalitarianism has been fostered by Germany's affinity for this form of economic organization for over three generations, as well as that nation's militarism in one generation. It is this association of the cartel and the political spheres of interest in Germany with which this investigation will be concerned.

Germany, the classical land of cartels, has developed the system to its most advanced degree, and for this reason an examination of Germany's cartel operations should prove to be edifying in giving an insight into the international cartel operations in general. In addition to these, other

questions relating to Germany's cartels will be closely explored.

What were the effects of the cartel system as developed in Germany upon the political structure of that state? What were the effects of that nation's international cartel agreements upon the volumes of production, technological progress, and national defense preparations of countries abroad? It will be the purpose of this paper to attempt to answer these questions, which for too long a time have been given only a modicum of attention. An economic and historical analysis of the cartel system in Germany over the past twenty-five years should serve the purpose of focusing new light on cartel issues and problems, which for too long a time in the past and present have been submerged in world indifference.

In this study of Germany's international cartel agreements there will be some shortcomings in the textual materials during certain periods of time covered in this report. This is due both to public apathy in respect to cartels, and the reluctance of firms to publicize their cartel arrangements. In addition to this the main emphasis of this report will stress the ramifications of Germany's cartel upon the United States in the decade preceeding World War II. This does not detract from the equally important effects Germany's cartel operations had upon

other nations, but is indicative of the dearth of material available to this writer on cartel agreements abroad. Though this shortcoming is unfortunate in respect to other nations, it is appropriate that emphasis be focused upon the United States because of its position of leadership, industrially speaking, during the era covered in this report.

This report will first examine the word cartel in order to give the reader an insight as to the definition of this term. This is necessary since there is some disagreement as to the precise meaning of the term. Attention will be centered on the various types of cartels, both of the domestic and international varieties found in Germany during the period under consideration. Though the intent of this report is the exploration of Germany's international cartel effects, the inclusion of that nation's domestic cartels is warranted by their relationship and similarities.

From this point the report will proceed to give a brief historical sketch of the development of cartels to the present day, with special attention being given to the growth of German cartels. Included in this analysis will be the philosophical and legal basis for their growth.

The role played by cartels in the rise of Hitler to power and their relationship with National Socialism will be scrutinized and evaluated. Attention will then be given

to specific case histories of international cartel relationships between German and foreign firms.

The selection of these specific cases was dictated by the importance of the products involved in the agreements. Emphasis was given to materials which are considered strategic by nations and which vitally effect both a nations peacetime well-being, and its ability to defend itself in time of hostilities. Products such as pharmaceuticals, aluminum, rubber, magnesium are included among other vital commodities. The leading German and foreign firms in these cartel agreements involving strategic materials will be shown, as well as the nature of the agreements.

Following these specific cases, a compendium of the effects of German cartels upon the war efforts of nations abroad will be presented. Whether these agreements were motivated by economic or political considerations will be discussed and elaborated upon on the basis of research material.

The functioning of German cartels during the war period and cartel legislation in occupied Germany in the postwar period will serve as a subject for another chapter. This will serve to bring cartels, and their position in the German economy, up to the present in respect to descriptive analysis. It is in this particular period beginning with World War II to the present day, that there is the greatest

paucity of materials germane to the study of Germany's international cartel operations. This is an inherent shortcoming in any endeavor which attempts to trace a period of twenty-five years of historical events, but particularly true in respect to cartels with their sub rosa agreements. Fortunately some basis for analysis is possible from the material on the subject available to the researcher. Before proceeding with this report it should be pointed out to the reader that the subject of cartels is one in which objectiveness is difficult to achieve. This is due to the fact that the majority of writers and students of the subject are resolute in their opinions of cartels, as to their beneficial or pernicious effects upon society. There is seldom a middle ground in respect to ones opinion of cartels, one is either for them or opposed to them, and moderation is usually lacking in a discussion of the subject. As a result of these prejudices much of the material available on the subject was somewhat colored by the personal views of the writers. Since the great majority of the research material that was available was the work of American authors who were close to unanimous in their dislike of cartels, for reasons which will be disclosed later; impartiality by the writer will be difficult. It is the intention of the writer, however, to adhere to the tenets of objective research, as far as is possible,

human frailty not withstanding. If this approach to objectivity is achieved, the study involved in this report will be amply rewarded. The justification for such a study having already been established by the events of the past generation.

CHAPTER II

A GENERAL SURVEY OF INTERNATIONAL AND DOMESTIC CARTELS

-TYPES AND HISTORY

I. CARTELS, AN INQUIRY INTO THE DEFINITION OF THE TERM

The word cartel was first written upon public records on May 5, 1879 when Eugene Richter, a member of the German Reichstag used it in a meeting of that legislative body, to denote private market control mechanisms of entrepreneurs.¹ The word itself was centuries old, and cooperation among enterprisers was an equally old established function, but this was the first instance that it appeared upon a public record. Since its initial utterance the word has been submerged in a mire of dispute as to a definitive meaning. The definitions given to the word by economists, teachers, writers and other parties interested in economic semantics have been protean, and invariably contain nuances of the definers own thought on cartels. In the United States, the word usually is defined in terms which give the connotation of general illegality. In European countries, the term is usually defined with a connotation of acceptability.

¹Ervin Hexner, International Cartels, p. 3.

Whatever one's own definition of a cartel, an analysis of the various definitions given to the term seems justified from the standpoint of economic analysis, if not from one of lucidity.

The term cartel is defined by some writers on the subject as being an arrangement among, or on behalf of, producers engaged in the same line of business with the intent of minimizing or eliminating competition among themselves.² A definition given to the word by an individual whose firm engages in cartel arrangements is somewhat at variance with the first definition.

Lord McGowan, head of Britian's Imperial Chemical Industries defines a cartel as a method of orderly marketing which assures a planned expansion of international trade and leads to the elimination of outthroat practices.³

If one makes use of the standard American college dictionary he will find a cartel described as an international syndicate, combine or trust generally formed to regulate prices and output in some field of business.⁴ Possibly the most concise definition appears in a

²George W. Stocking and Myron W. Watkins, Cartels in Action, p. 3.

³Edward S. Mason, "The Future of International Cartels," Foreign Affairs, Vol. XXII (July 1944) p. 605.

⁴Clarence L. Barnhart, Ed. The American College Dictionary, p. 185.

dictionary of economics which defines cartels as, "contractual associations of independent business organizations, located in one or more countries, formed for the purpose of regulating the purchasing, production, or marketing of goods by the members."⁵

Before proceeding further as to the meaning of the term, it should be pointed out that the word may have a legal as well as an economic definition.⁶ Because of this dichotomous definition, the meaning of the term has been changed somewhat of late, due to its increased usage. Once it stood simply for a contractual relationship, usually enforceable at law, between a number of enterprisers who had banded together for a fixed period of time in order to better regulate price, or production or marketing terms, or divide area, or some other feature of business relating to a single or a closely related group of commodities produced by its members. Now that the term has been modified to some degree, a new definition would describe a cartel as meaning any sort of compact - whether recognized and enforceable by law or not - between two or more concerns with the purpose of manipulating one or more

⁵Harold S. Sloan and Arnold J. Zurcher, A Dictionary of Economics, p. 48.

⁶"Role of Cartels in Modern Economy," Foreign Policy Reports, Vol. XX (October 15, 1944) p. 182.

of the elements of conducting business to the advantage of the participating parties.⁷

The legal recognition accorded to cartels has occurred only in respect to the domestic form of cartelization, and it is highly significant that to the present time, the cartel has no legal status in international law.⁸ Due to this lack of recognition in international law, a legal definition for the term is applicable only to the domestic variety of cartels. A comparison of domestic and international cartels, and the relationships and similarities existing between them is the next subject of inquiry.

II. DOMESTIC AND INTERNATIONAL CARTELS

- A COMPARISON

The basic difference between the international and the domestic type of cartel agreement is geographical, as the name given to the two terms implies. One type of organization functions within the boundaries of a particular country, the other cuts across national boundaries to reach agreements with foreign concerns. In essence, the international type of cartel is the prototype of the domestic cartel.

⁷Robert A. Brady, Business as a System of Power, p. 239.

⁸"Role of Cartels in Modern Economy," Foreign Policy Reports, Vol. XX (Oct. 15, 1944) p. 182

In some nations, cartels take the form of trusts and pooling agreements and are not illegal under domestic laws. This is particularly true in the case of most European nations. Other forms of cartels are just agreements on output and prices reached without the use of the trust mechanism. An objective appraisal of cartels requires discriminating between cartels and trusts. In the United States the tendency is to often define the two as one, as though there was no legal or economic differentiation between them. It must be remembered that a cartel is an agreement between independent autonomous enterprises, while a trust represents centralized control of dependent units.⁹ In organization and function trusts and cartels differ; some trusts joined cartels, as chemical and steel in England and in Germany, or used them as instruments; but the inherent difference is still embodied in their structural organization.

The discussion that will follow in a later chapter relating to cartels in Germany and the ramifications of these cartels abroad will often refer because of their

⁹Frederick Hausmann and Daniel J. Ahern Jr., "Misconceptions about Cartels," The American Mercury, Vol. LX (March 1945) p. 299.

close relationship to domestic as well as the international cartels. To give the reader a better understanding of cartel types in general, the following outline of cartels is presented. It includes both the domestic and international cartel types which existed in Germany and in other European nations prior to World War II. The outline will use as a basis the particular phase of marketing or production which each cartel aims to regulate the means chosen for its specific purpose. It is true that some writers on cartels distinguish only three major types of cartels, the territorial, price and production cartel, but for a more complete study, I believe the following classifications seem more satisfactory:

DOMESTIC CARTELS

- I. Cartels regulating phases of sale
 - A. Regulation of sale terms
 1. Term cartels
 - B. Regulation of sales prices
 1. Calculation cartels
 2. Price cartels
 - a. Minimum-price cartels
 - b. Uniform-price cartels

- C. Regulation of sales profits
 - 1. Profit sharing cartels
- D. Regulation of sales outlet
 - 1. Territory-preservation cartels
 - 2. Customer-preservation cartels

II. Cartels regulating production or marketing without central selling agency

- A. Production regulation without output restriction
 - 1. Patent cartels
 - 2. Specialization cartels
- B. Production regulation through marketing restrictions
 - 1. Bidding-regulation cartels
 - a. Order allocation cartels
 - b. Submission cartels
 - 2. Marketing-restriction cartels with allocation of shares.
 - a. Fixed marketing share cartels
 - b. Market-equalization cartels
 - c. Turnover-equalization cartels
- C. Direct production-regulation cartels
 - 1. Without allocation of shares
 - a. Plant restriction cartels

2. With allocation of shares

- a. Fixed production-share cartels
- b. Production-equalization cartels

III. Cartels regulating production and marketing through central selling agencies (syndicate)

- A. Agency syndicates
- B. Independent syndicates

INTERNATIONAL CARTELS

- I. International shares without preservation of domestic market
- II. International shares with mutual preservation of domestic market
 - A. Domestic sales included in international share
 - B. Domestic sales exempted from international share
- III. International shares and specific subshares for each market

Within the framework of the above functions, international cartels may adopt any of the regulatory activities of domestic cartels.¹⁰

¹⁰ Bruno Burn, Codes, Cartels, and National Planning, pp. 195-196.

Having outlined the organization of both domestic and international cartels, the next phase of this report will define and elaborate upon the various types of cartels cited in the outline.

Term Cartel. This is the simplest form of cartel agreement and its function is to regulate the terms of sale which the members may grant to their customers.

Calculation Cartels. This form of cartel determines the cost-accounting method to be employed by the members in determining the price of their output.

Price Cartel. In this form of cartel, an agreement is concluded on what uniform price shall be charged to a consumer for a particular commodity. There is usually a minimum price which can be charged and a uniform selling price.

Trade-mark Cartels. The provisions of this form of cartel agreement state that the associated producers of trade-mark goods agree not to sell their products to wholesalers or retailers who market any of the protected trade-mark products below their fixed price.

Profit-sharing Cartels. This type of cartel takes diverse form, some have provisions requiring that a fixed percentage of the total receipts of all members shall periodically be paid into a common fund, which is then distributed

with allocation depending upon relative shares of members. Other types provide for a distribution of the differences between a basic price and a selling price.

Territory-preservation cartel. The purpose of this cartel is the mutual protection by the affiliated enterprises of their respective natural marketing areas.

Customer-preservation Cartels. This type of cartel is usually adopted by industries whose relation with their customers are of a more durable nature, and involve a considerable extension of credit by the producer to the purchaser of his product.

Production Cartel. The objectives of this cartel are the regulation of the relative shares of each member enterprise in the market demand; this diminishes the possibility of over- or underproduction.

Patent Cartel. The purpose behind this cartel agreement is the desire to expand the market for goods produced by a particular industry by the mutual use of patents among certain members of the industry; this exchange of patents and the conditions of the exchange are agreed upon by the respective companies concerned.

Specialization Cartels. This type of cartel agreement is in most instances found in industries which manufacture a large variety of products with great similarity in the quality of each type. By the terms of this

agreement each of the affiliated firms is assigned one or several products which it is to manufacture exclusively.

Bidding-regulation Cartels. This type is found mainly in competitive bidding enterprises, and the intent of its members is to prevent underbidding among competing members in a particular industry. Order-allocation cartels and submission cartels are examples of bidding-regulation cartels.

Market-restriction Cartels with Allocation of Shares. This type of cartel does not impose any direct restrictions upon the volume of production of its members. In its place it allocates quotas to each member as to quantity which it is permitted to market. Included in this type of cartel are fixed-marketing cartels, market-equalization cartels and turnover-equalization cartels. The first type provides for a fixed share of anticipated sales, the second provides for compensation to equalize shares, and the last involves a fixed share of the market as expressed in monetary terms.

Plant-restriction cartels. This type of cartel usually follows one of three methods in its functioning, the first being an overall reduction by all associating enterprises of the number of shifts during which machines may be employed, the second method being the prohibition of the installation of new machinery and lastly, the shut-down of a certain percentage of machines.

Fixed Production-share Cartels. In this type of arrangement, enterprises are prevented from producing above a certain quantity, by limiting the amount each firm can put on the market. The quota system is used in allocating the market.

Cartel-Syndicate. In this type of cartel, the syndicate, made up of members of a particular industry, acts as the selling agency for all members and is vested with authority to regulate the output of the affiliated firms in accordance with the corresponding regulations in the underlying cartel agreement.

International Shares with Mutual Preservation of Domestic Market. In this form of cartel accord, each national cartel receives its quota in the entire international market, but it is not permitted to sell its products in the domestic market of any of the affiliated national cartels.

International Shares and Subshares for Each Market. Under this arrangement each affiliated national market obtains a share in the entire international. These shares are then divided into specific quotas for each market.

International Shares Without Preservation of Domestic Market. In this type of cartel agreement, an international selling syndicate is organized which allocates all incoming

requisitions to the various national cartels in the ratio to their shares.¹¹

In noting and comparing domestic and international cartels and their functions it is seen that the latter type can to a very great extent adopt the regulating activities of the former. Naturally, the international cartel is likely to be more difficult to organize and operate, but its essential nature is similar to that of the domestic cartel.

III. EARLY HISTORY OF CARTELS - FROM 3000 B.C. TO 1933 A.D.

Having defined and classified cartels attention is now directed to the history of these institutions. Strange as it may seem, cartels are not new in the field of economic activity, they started over four thousand years ago.

The history of cartels began as early as 3000 B.C. in Egypt which had at that time a number of price cartels.¹² Following that date there is a dearth of information as to their existence, although associations similar in structure no doubt existed. Later cartels included a production and

¹¹ Ibid., pp. 197-201.

¹² Haussman and Ahern, op.cit., p. 295.

marketing cartel which had its inception in England in 1771. An earlier approach to international cartelization which was bold but unsuccessful was attempted by Sir George Colebrook to control the production and marketing of alum.¹³

The English coal syndicates of 1771 and 1835 were early prototypes of modern cartels, as were the French fayence cartel, (1811) and the brewery cartel of Ghent in 1835.¹⁴ The Neckar Salt Union, which was organized in 1828 between salt works in the States of Wilttemberg, Bodan and Hesse, entered into agreements with the Eastern French Salt Works syndicate in 1867 became a forerunner of modern cartels.¹⁵

The chemical industry provided examples of international syndicates in the latter half of the nineteenth century. The Bismuth Syndicate, the Borax Syndicate, the Acetic Acid Syndicate, the Carbide Syndicate, and the cartels in the explosive industry can all be cited as being prominent cartels of that era. In addition to these, international cartels were formed by producers of porcelain, table glass, watch glass, and enamelled ware.¹⁶

¹³ Alfred Plummer, International Combines in Modern Industry, p. 4.

¹⁴ Haussmann and Ahern, loc. cit.

¹⁵ Plummer, loc. cit.

¹⁶ Ibid.

This great growth of cartels through these earlier years was attributed to the mercantile system of government which evolved with the modern nation state. The cartel was a natural growth of this mercantile protectionism.¹⁷ This system of economic protectionism developed to a great degree in the majority of European countries, and as a result at the beginning of World War I, there was reported to be at least 114 international cartels in existence.¹⁸

¹⁷"No Peace with I. G. Farben," Fortune XXVI, (September 1942) p. 105.

¹⁸Hausmann and Ahern, loc. cit.

CHAPTER III

THE HISTORY, PHILOSOPHY AND LEGAL STATUS OF GERMAN CARTELS

I. THE HISTORICAL DEVELOPMENT OF THE GERMAN CARTEL SYSTEM

Modern cartels can be called a German invention, since they were the most numerous and fully developed in this classic land of cartels. Though they existed in other lands prior to their appearance in Germany, it took the German business mind with its penchant for orderly, regimented processes to fully utilize the cartel mechanism.

Cartels came to the forefront in Germany during the 1870's, and are regarded as having developed out of the slump which followed the impetuous and erratic industrial growth which began after the Franco-Prussian War. The immense war indemnity obtained from France following the war and the impetus that came from political unification provided the basis for an industrial and financial boom. This boom was quickly followed by the crisis of 1873, which was considered by some economic historians as the first comprehensive crisis in the modern economic world.¹ Because

¹Louis Domeratzky, "Cartels and the Business Crisis," Foreign Affairs, Vol. X (October 1931) p. 37.

they were nurtured during this period of depression, cartels are often designated as "offsprings of poverty."²

These cartels achieved greater significance after 1879 when the German economic system made use of protective tariffs. This same year saw the birth of one of Germany's earliest cartels, the Luxemburgh-Lothringer Erzverband.³ In addition to being offsprings of poverty, cartels became offsprings of protectionism.

With the imposition of duties on the importation of commodities, German producers of various commodities instead of engaging in competitive practices among themselves saw in the tariff an opportunity to fix prices and thus eliminate any "pernicious" competition among themselves. With the tariff, a great stimulus was given to the erection of industrial combinations which were soon to spread over the whole of the German economy.

Germany continued being the spawning ground of cartels into the twentieth century and there was a steady increase in their numbers. In 1905 the Reich Ministry of Interior counted 385, in 1908 the estimated number of

²William F. Bruck, Social and Economic History of Germany from William II to Hitler, p. 93.

³Frank Munk, The Legacy of Nazism, p. 165.

cartels was placed at 800.⁴ These figures did not reveal the true number of cartels, since there were many unofficial cartels in existence at these dates, and these were not included in the estimates.

II. PHILOSOPHICAL FOUNDATIONS OF GERMAN CARTELISM

Further development of German cartels in the post-war period will be discussed in the following chapters. Attention should be directed to the philosophical reasons for the prodigious growth of cartels in Germany. Why was Germany the prolific breeding ground of cartels? Why do German businessmen choose to use the cartel device? These are questions which should be answered before continuing with this study.

First, the cartel device is regarded as a desirable method of protection for all producers, both large and small, though small producers who needed protection against their larger competitors and trusts would benefit most by the device. The theory is that by compelling the large producer to enter a cartel where in the adjustment of production and distribution policies the interests of the aggregate of small and medium producers must be given

⁴Munk, loc. cit.

consideration, a barrier, more or less temporary, is built up against excessive industrial concentration.⁵ The Germans cite the distinction between industrial concentration and industrial cooperation; the former is a trust and under a centralized control, the latter represents full participation in the control of the organization by independent members.

The increasing element of risk and the relative decline in profit due to unrestricted competition became the dominant cause for the great growth of cartels in Germany.⁶ Unregulated competition to the majority of German businessmen could offer little except economic chaos. They envisioned a continual struggle in the market with the denouement predicted by the French economist Proudhon, that "competition kills competition." The German attitude tended, therefore, to look upon the principle of combination in a favorable light and as a means to assure some profit to each of the private business enterprises.⁷

Economic stability was the idea employed by German businessmen to justify the cartel movement; only through this form of organization could destructive competition be eliminated, and only through this method could orderly

⁵Domeratzky, op. cit., p. 38

⁶Bruno Burn, Codes, Cartels and National Planning, p. 145.

⁷A. J. Rosenstein, "How Cartels Broke the German Republic," Canadian Forum, Vol. XXIII (March 1944) p. 279.

markets be maintained. Cooperation bred stability, and stability bred economic security, and the dominant urge of German business, as of the nation itself was to achieve security through organization. This drive for security is found in businessmen everywhere, but in Germany it reaches obsessive proportions. The normal desire to avoid risk and achieve security seemingly takes on, in Germany, the nature of a passion, a passion intensified by the national urge to drive everything to a "logical" conclusion, to anticipate and make allowances for everything, to bind fate herself by a kind of reverse fatalism.⁸

III. THE LEGAL STATUS OF THE CARTEL SYSTEM IN GERMANY

What is the legal status of cartels in Germany? How do the courts view combinations? Questions such as these are the next subject of inquiry. The findings may come as a surprise to the average American, long familiarized with antitrust history.

The attitude of the German courts toward cartels has been to justify their existence as necessary entities in the realm of economic relationships. A decision⁸ of the Imperial Supreme Court ruling on a case involving a

⁸Gilbert Bruck, "The German Business Mind," Fortune, Vol. XLIX (May 1954) p. 112.

selling agency agreement among producers of wood-pulp in 1908, epitomized the attitude of the German legal system regarding cartels. It stated in part:

"If in any branch of industry the prices of products sink too low and if the thriving operation of the industry is thereby made impossible or endangered, then the crisis which occurs is destructive not only for individuals, but also for the social economy in general, and it is therefore in the interests of the community that unduly low prices in a branch of industry shall not permanently exist."⁹

Opinions such as this provided a healthy milieu for the growth of cartelism in Germany. Throughout their history in that nation, the courts have been entreated to adjudicate numerous disputes which have arisen among cartel members. In many instances, the government used the courts in the application of legal measures in order to prolong cartels which it considered necessary to protect the interests of the state. As an example, the intervention of the state through the law was responsible for the continuation of the Rhenish-Westphalian Coal Cartel as well as the Potash Syndicate in 1910.¹⁰

The next and most general legislation dealing with cartel matters came about with the promulgation of the

⁹quoted in E. A. Robinson, Monopoly, p. 226.

¹⁰Robinson, op. cit., p. 233.

so-called cartel decree of 1923. This cartel decree had three important effects, first it set down requirements regarding cartel contracts, secondly it gave certain powers to the Reich Minister of Economic Affairs, and lastly it created a cartel court and established certain rules to guide its procedure and decisions. Its actual intent was to prevent abuses of economic power by cartels. As examples, paragraph 4 gave the president of a law court established ad hoc the right to nullify a cartel, if the state desired its dissolution; paragraph 9 was also of great importance since it took away the power of the cartel to prohibit deliveries to outsiders, and gave it to the president of the cartel court.¹¹

Though numerous decrees pertinent to cartels followed this law they did not modify its essence. Considering the decree from an overall perspective, it can be said it was successful in giving means to private enterprise to preclude undue coercion and control.¹²

The general effect of the decree in the matter of regulation of trusts and cartels proved to be ineffectual.

¹¹Bruck, op. cit., p. 97.

¹²Ibid., p. 198.

In the year following its issuance it was found wanting in many respects, though it remained in force until a new decree was issued by the Nazi government in 1933. This new decree, however, will be fully discussed in the next chapter dealing with cartels and Hitler's rise to power.

CHAPTER IV

CARTELS, THEIR INFLUENCE IN THE RISE OF HITLER AND THEIR RELATIONSHIP TO NATIONAL SOCIALISM

I. CARTELS AND HITLER'S RISE TO POWER

In the first few years following World War I cartels in Germany were not active. Many of the prewar international cartels with which Germany had been prominently associated had been dissolved due to the war; the domestic cartel system had been thrown into confusion and disorganization due to defeat and occupation. Any new attempt to revive cartels was viewed with disapproval by the victorious allied powers. In the middle of the 1920's, in a more propitious political atmosphere, German cartels began their comeback and were once again to assume their position of importance in the structure of the German state.

It is said that cartels became the real government of Germany in this post-war period, and "anonymously ruled the life of the nation down to the last details of burial while the Weimar Republic withered powerlessly".¹ While this statement is hyperbolical, there is still considerable truth in its contention, as evidenced by the role which cartels played in the rise of the Hitler regime.

¹A. J. Rosenstein, "How Cartels broke the German Republic," Canadian Forum Vol. XXIII (March 1944) p. 279.

An investigation of available sources of information dealing with the period under consideration gives credence to the belief that Hitler's rise to power was financed to a considerable degree by cartel interests. In a memorandum dated March 22, 1932, - a year before Hitler took control, the head of the Foreign Relations department of Du Pont de Nemours & Company wrote his superiors from Germany:

"It is a matter of common gossip in Germany that I. G. is financing Hitler. Other German firms who are supposed to be doing so are Krupp and Thiessen. How much truth there is in this gossip we are unable to state, but there seems to be no doubt whatever that Dr. Schmitz (director general of I. G.) is at least personally a large contributor to the Nazi party."²

Later evidence confirmed this observation. In its issue of September, 1942, Fortune magazine stated, "It is now historical fact that the steel and chemical cartels financed Hitler's early political adventures."³ It should be pointed out that the firms mentioned, I. G. Farben, Krupp and Thiessen were all prominent members of domestic and international cartels.

²quoted in Joseph Borkin and Charles A. Welsh, Germany's Master Plan, p. 58

³Borkin and Welsh, op. cit., p. 306

Hitler had the support of the Junkers, who had become cartel leaders following World War I. This class, which represented the cartel magnates, saw in Hitler the psychological magnet with which to align the fears, unreasoning resentments and the need of the German people for a common purpose. Hitler "Focused the nation will, while at the same time he protected the cartel interests."⁴ The cartel system extant in Germany at the time of Hitler's accession to power was favorable to the mutual growth of both. The alliance which was achieved was inevitable and sprang from "The undemocratic character of both the cartel System and Fascism."⁵

Professor Henreich Kronstein of Georgetown University, an authority on the subject of cartels had the following to say concerning cartels and the rise to power of Hitler:

"Hitler built up his system on the institution he found when he came into power. One of the most important institutions he found was the cartel and patent system as developed since 1879 Cartels are tools used to accomplish certain ends. They have no life of their own; it is the people behind them that give them life The psychology of these people, their efficiencies or laziness, their defensive or offensive spirit, together make up the spirit of the cartels."⁶

⁴Borkin and Welsh, op. cit., p. 306.

⁵Harley Kilgore, "The Menace of the Block International," National Education Association Journal, XXXIII (April 1944) p. 90.

⁶quoted in A. J. Rosenstein, "How Cartels Broke the German Republic," Canadian Forum, XXIII (March 1944) p. 279.

Hitler and the system of National Socialism gave cartels a new vigor, and along with vigor, greater offensive spirit. The aims of the cartels were now to be fused with the ambitions of the state. Prior to Hitler, German cartels and similar private agreements regulating the production, prices or marketing of commodities were subjected to only a minimum of state control. They were considered primarily as organizations directed toward the realization of business interests of private groups. Subsequent legislation had little effect on their actions. This situation was to be radically changed after Hitler's accession to power. The initial steps in this change were the cartel decrees of 1933.

II. CARTELS AND NATIONAL SOCIALISM

- CARTEL DECREES OF 1933

The Nazi state regarded cartels as necessary and indispensable. It brought about a change in attitude - a change from indifferent tolerance to positive approval. According to one formula:

"Anti-cartel policies = Liberalism. Pro-cartel policies on the basis of the Compulsory Cartel Law = National Socialism."⁷

⁷Robert A. Brady, The Spirit and Structure of German Fascism, p. 340.

The above formula has as one of its basis the Compulsory Cartel Laws of 1933. These laws, which were among the first legislative measures taken by the Nazi government in regard to industrial practices, provided a solid base for the enhancement of economic control by the state. These decrees gave the Minister of Economy the power to create compulsory cartels and to force all individual producers to join the cartel of their trade. The state was given the full right of control over these organizations.⁸

In addition to this, the Department of Economics was given far-reaching authority to dictate the functions of cartels, and to interfere in any and all duties, privileges, and contractual relations of cartel members. The decrees assured cartels that no new firms would be permitted to form without the expressed authorization of the cartel bureau, and that no existing firm could enlarge their productive capacity without similar consent from the government. The cartel system paid dearly for these assurances by accepting state and party control and surrendering the right to determine their policies to the Hitler government.⁹

⁸Ona Ringwood and Ernest Hediger, "German Cartels Invade Europe," Foreign Policy Reports, XVIII (Aug. 1942) p. 148

⁹Frank Munk, The Legacy of Nazism, p. 170.

III. THE AIMS OF THE DECREES - OFFICIAL VERSION

When the compulsory cartel statutes were promulgated they were accompanied by an official statement as to the aims of the decrees, which attempted, as one writer put it, "to mislead public opinion" on this issue.¹⁰ This official explanation said in part:

"The severe depression hanging over the German economy has struck most severely at those branches of industry that have a productive capacity far in excess of present market possibilities. Intensified competition and the low price level resultant therefrom . . . have brought nearer the point at which the ruin of enterprises valuable to our national economy is threatened."¹¹

Though the official aims of the decree stress the necessity of state control as the means to succor the threatened national economy, the actual intent of the decrees was to insure state control over every segment of German industry. That they succeeded in this endeavor seems clear, judging from the results of the decrees.

IV. RESULTS OF THE LAWS

Under these new laws, the number of cartels, the extent of cartel control over industry, and the rigidity of controls all increased markedly. Because outsiders were

¹⁰ Otto Nathan, The Nazi Economic System, p. 72.

¹¹ quoted in Franz Neumann, Behemoth, p. 266.

eliminated as potential competitors, the bargaining position of the cartels with other enterprises and with the government were greatly improved. They were no longer faced with the task of fighting outsiders. Superficially it appeared that the cartel system gained new strength from the laws; in actuality, however, German cartels from 1933 on were no longer private entities, they became "mere cogs in the huge machinery of the Nazi state, and docile instruments for the execution of Nazi imperialistic policies."¹²

These cartel decrees in 1933 were harbingers of increased government control over cartels. New fiat of government in the regulation of prices and foreign exchange were soon to follow and further to constrict the remaining autonomy these organizations possessed. As early as May 1934, the power of cartels and similar organizations to regulate prices was seriously hampered by subjecting all such functions to the approval of the state price commissioner. In November 1936, prices were frozen in Germany except such changes specifically authorized by the Commissioner for the Formation of Prices. With the issuance of this edict, the cartels lost every vestige

¹²Ringwood and Hediger, loc. cit.

of independent authority in the price-making field.

The tightening of foreign exchange control worked considerable hardship on cartels. The difficulties confronting cartels because of the foreign exchange situation became acute in 1934, with the initiation of a new plan which gave the responsibility of import control to supervisory agencies. The activities of the supervisory agencies soon developed into a complete control of foreign and domestic raw materials and other commodities. That this action increased the power of the state and greatly curtailed the activities of cartels, which had theretofore attempted to regulate the production of their members is readily understandable.¹³

The power of the government over cartels grew with increasing regulation of the entire economy. In 1934, the government began a program to construct an "Organization of Industry". The Groups and Chambers which made up this Organization of Industry were under the complete domination of the government. All entrepreneurs were compelled to have membership in the Groups and Chambers, which functioned under a leadership principle, and were administered by a chairman, who in actuality was appointed by the government. The functions performed by the Groups and Cartels in the economy, in respect to marketing regulations, etc., over

¹³Nathan, op. cit., p. 76.

the years became quite similar. The membership in these groups was often the same, the cartel emphasized the private character of the cartel organization, while the Groups gave a certain political emphasis to cartels. Due to duplication of function and conflict of views, the government stepped in and on November 12, 1936, the cartels were integrated into the administrative economic hierarchy and were put in a position below the Groups. Since these groups were under the complete control of the Department of Economics, the transfer of responsibility to the Group solidified the power the government assumed over cartels by the statutes of July, 1933.¹⁴

Having reached this stage in this study of Germany's cartel system, attention shall now be focused upon their ramifications abroad. Their effect will be appraised by examining cartel relationships in certain strategic commodities, since it was in these commodities that cartels received their greatest notoriety.

¹⁴Ibid., p. 78.

CHAPTER V

ALUMINUM AND TUNGSTEN CARBIDE, VITAL ELEMENTS IN THE INDUSTRIAL POWER OF NATIONS

I. GERMANY AND THE ALUMINUM ALLIANCE

"Every pile of aluminum pots and pans which Americans build in public squares is an unwitting tribute to the efficiency of German cartel warfare."¹

This sentence laconically expresses the effects of Germany's cartel arrangements in the field of aluminum production.

The events which led up to this shortage of aluminum among the United Nations in the early years of World War II had developed as a result of calculated planning by the German government. The planners foresaw the importance of aviation in any future conflict, and therefore the greater need of aluminum.

Germany entered the first major international aluminum cartel in 1926 along with several other nations. Prior to this date there had been three other smaller international aluminum cartels of which German producers were not members. The cartel organized in 1926 did not regulate capacity or total output, it merely regulated quotas for domestic and export sales, including aluminum sold in the form of alloys.²

¹Charles Borkin and Joseph Welsh, Germany's Master Plan, p. 72.

This cartel was generally ineffective in controlling the export market, because of Canadian competition, so a new cartel was formed in Switzerland in 1931, and Canada's main producer of aluminum, the Aluminum Limited (Alted), was included. Although the Aluminum Company of America (Alcoa) the sole producer in the United States at this time, had been a member of an earlier cartel in aluminum, it did not join in the 1931 agreement. Alcoa's reasons for not joining were two in number. The first reason being that in an earlier cartel in which it had been a member, had been indicted and fined under the antitrust laws in the United States. A second reason for the agreement was that it had controlling interest in Alted, the Canadian member of the alliance. The actual operation of the alliance in later years gave credence to the belief that Alcoa was a "silent partner" in this aluminum combine.³

This alliance unlike its predecessor had in its provisions the regulation of output. To administer the agreement a joint stock company, The Alliance Aluminum Compagnie was incorporated at Basle, Switzerland. The distribution

²Ervin Hexner, International Cartels, p. 218.

³George W. Stocking and Myron W. Watkins, Cartels in Action, p. 265.

of shares was based on the production rates of cartel members at that time. The Canadian member, Alted, got the largest share 28.58%, the quotas of the other members were 21.36% to the French, 19.64% to the Germans, 15.42% to the Swiss, and 15 percent to the British.⁴

In 1934, the German national groups of the cartel, the Vereinigte Aluminum Werke (V. A. W.), which was a government sponsored cartel, and the Aluminum Werke asked to be freed from quota restrictions pertaining to domestic production. Military needs dictated this request for unrestricted domestic production, and though the other cartel members were strongly opposed to the German suggestion, they agreed to a compromise meeting to discuss the question.

At this meeting held in Geneva, Switzerland, Hitler's representatives approached the cartel members and offered the following alternatives. First, if the members would agree to freeing Germany from the quota restrictions, Germany would agree to stay out of the world market completely, buying a pound of cartel aluminum for every pound that was exported from Germany. It was made clear that if the first suggestion was ~~not~~ agreed to, the Germans would

⁴Alexner, op. cit., p. 219

take the alternative and break the cartel agreement, produce all the aluminum they wanted and would sell it anywhere. This was a serious threat to the cartel alliance, since if Germany chose the second alternative, the price of aluminum would fall and the market could not be held in line. The cartel agreed to release Germany from the established quota and as a result, the production of aluminum in that country went from 37,000 metric tons to 70,000 metric tons within the year.⁵

By the end of 1936, German producers were equipped to produce 90 percent as much aluminum as Alcoa, though three years previously that nation's capacity was less than a third that of Alcoa. By 1938, the German output was reported to have exceeded the United States output by a small margin.⁶ From 1938 through 1941, the primacy of Germany in aluminum production was unchallenged, and it was reliably estimated that in 1941, Germany produced more aluminum than the combined United Nations.⁷

In Europe as in America, aluminum production increased slowly, while German production grew by leaps and

⁵Blair Moody, *Boom or Bust*, p. 237.

⁶Stocking and Watkins, *op. cit.*, p. 271.

⁷Borkin and Welsh, *op. cit.*, p. 221.

bounds. In France, aluminum production was greatly retarded by the cartel agreement. Aluminum production advanced at such a low rate that it fell short of doubling its output in the same period when German production increased five-fold.³

Through the adroit use of the instrumentality offered by the cartel agreement, the leaders of the German State built up the air arm of their war machine. And though this superiority was short-lived, it provided the Luftwaffe with a great initial advantage.

This agreement reached on November 5, 1928, gave rise to the patent cartel which provided for the exchange of technological information in addition to the pooling of patents. Under the terms of this agreement, General Electric through its subsidiary, Carbaloy Inc., agreed not to license others to produce the cemented carbide in the United States without the specific permission of Krupp.

This agreement was reached despite the fact that Krupp's patents on the process of making tungsten carbide were tenuous, and probably would have been held to be invalid if brought before a court. This was the opinion of all experts on the matter, and for this reason the

³Wendell Berge, Cartels, p. 6.

patents were never tested, since such a decision would have made it impossible for any producer to have a monopoly over the new product. This cartel agreement was reached between General Electric and its subsidiary, Carbaloy, and Krupp, because the American firms sought the assistance of the German firm in order to gain sole control of the tungsten carbide industry in the United States.⁹

In an amendment to the agreement in 1936, General Electric submitted to a request from Krupp that it refrain from engaging in the export of carbide materials. In extracting this promise not to export, Krupp with one stroke shut the metal out of Great Britain and held Germany's grip on the South American trade.¹⁰

In the United States, the few firms which did function under licenses from General Electric were required to maintain prices at a par with General Electric. The price following the conclusion of the agreement rose abruptly in the United States from \$45 per pound to \$453 per pound, thus these industrial diamonds became "more expensive than gold."¹¹

⁹Guenter Reimann, Patents for Hitler, p. 229.

¹⁰Moody, op. cit., p. 241

¹¹Ibid.

In Germany where a much larger amount of tungsten carbide was manufactured, the prices through a ten year period were generally only twenty-five percent of the U. S. price.¹²

Though the price in the United States dropped in 1930 to \$226.50 per pound, it was \$40.317 in Germany that year. The price in the United States remained at this general high level till 1940. But in 1940 it dropped sharply, following the invalidation of six important patents by a United States Federal Court.¹³

This high price placed on tungsten carbide through the 1930's hindered its use by the great majority of American machine tool plants. Instead they resorted to the use of cheaper and less efficient materials for the manufacture of machine tools.

Despite the low price of carbide in later years, and the demands of national defense, American industry could not fully utilize this product because it was not technologically prepared to do so. The second largest manufacturer of tungsten carbide in the United States pointed out this inadequacy when he said:

"The control of tungsten carbide patents by the General Electric Company and the Krupp Company has

¹²Bone Committee, Patent Hearings, Part 1, pp. 85-87, quoted in Hexner, op. cit., p. 369.

¹³Borkin and Welsh, loc. cit., p. 267

"resulted in keeping the price at exorbitant levels. Now when the time has come, industry has not learned how to use tungsten carbide and has not the machines, the skilled men, or the technique which it would have had if the material had been available at the same low prices at which it was available to German industries."¹⁴

The case of carbide is another instance where the cartel agreement was used by a German firm to limit the military potential of a possible enemy. Whether this agreement was motivated chiefly by military considerations is highly debatable, though it is known that Krupp had very close ties with the supreme military leaders in Germany and "always acted in accordance with the policies of the Nazi government."¹⁵ Whatever the reason, military or economic, the end result proved advantageous to the Hitler government.

¹⁴quoted in Berge, op. cit., p. 42.

¹⁵Reimann, op. cit., p. 232

CHAPTER VI

A STUDY OF CARTEL RELATIONS BETWEEN ZEISS COMPANY OF JENA AND BAUSCH & LOMB OF ROCHESTER, N. Y.

I. ZEISS OPTICAL COMPANY OF JENA - A HISTORICAL RESUME'

One of Germany's international cartel agreements that had a profound effect upon the military preparedness of several nations was in the field of optical instruments. Through the use of patent and price cartels, the German firm, the Zeiss Optical Company of Jena, was able to exercise control over the manufacture of military optical goods; a control which proved costly to Germany's enemies in two world wars.

Zeiss, by the use of cartel agreements, was not only able to restrict the production of vital optical glass needed in the precision instruments of foreign industries, but also obtained valuable information on the relative military preparedness of nations. It was able to do so because of its position of leadership in the field of optical instruments. German leadership in this field had been achieved in the 19th Century when that nation developed optical glass manufacturing to its most advanced state. The Zeiss Company was the dominating group of the German optical industries. The other main German companies in

in this line of business, C. P. Georze A. G., Ica, Contessa-Nettel A. G., and Ernemann A. G. were fused directly under the controlling interest which Zeiss had in each.¹

II. 1907 - THE BAUSCH & LOMB AGREEMENT WITH ZEISS

The control which Zeiss was able to exert over the manufacture of optical glass in the United States is shown upon examining the cartel agreement which existed between that firm, and the Bausch and Lomb Company of Rochester, N.Y. Bausch and Lomb were the leading manufacturers of optical glass used in precision equipment, in the United States.

In 1906 there was no manufacturer of optical glass in the United States.² By optical glass is meant the glass used in microscopes, spectrosopes, and photographic lenses for scientific, industrial and military uses, and it is not to be confused with ophthalmic glass used for poor vision, which is a different type of optical glass.

Prior to the first World War, Bausch & Lomb, the principal manufacturers of optical goods in the United States, had been manufacturing military optical goods from glass imported from Germany. This had been the result of a contract entered into in 1907, by this firm and Zeiss, in

¹Joseph Borkin and Charles A. Welsh, Germany's Master Plan, p. 275.

²Thurman W. Arnold, The Bottlenecks of Business, p. 69.

which the American firm had become the exclusive agent of Zeiss in the United States. In exchange for this position of primacy in the United States, Bausch & Lomb sold one-fifth of their capital stock to Zeiss and permitted the representation of Zeiss interests on its board of directors. From 1907 to 1914, no optical glass was made in the United States, Bausch & Lomb had to depend upon imports from Zeiss for their entire supply.³

Zeiss retained similar control over the optical glass industries in France and England during this same period. In England, where Chance Brothers were the main producers of optical glass, Zeiss was a major factor in the market. Patent agreements which Zeiss had with French firms in the optical business made these French companies dependent upon Zeiss for technological information, as well as making them pay royalties to Zeiss for their use.⁴

In 1914, the Allied countries sought to place orders with Bausch & Lomb, as Zeiss could no longer be a source of supply due to the war. Zeiss objected to this, and refused to continue to supply Bausch & Lomb with glass,

³Wendell Berge, Cartels, p. 145.

⁴Borkin and Welsh, op. cit., p. 279.

under their contract of 1907. It was over this dispute that Bausch & Lomb purchased Zeiss' one-fifth interest in that company.

The cartel between Zeiss and optical companies in the Allied nations made these non-German firms wholly dependent upon Zeiss for their supply of glass, and resulted in a severe shortage of military optical apparatus which continued throughout the period of hostilities. In the United States, the Alien Property Custodian confiscated the Zeiss patents, but this had little effect on U. S. production since U. S. firms had to start from the bottom and work up. A lack of trained technicians in the optical field further hampered Allied production of these goods.

With the end of the war, Zeiss once again sought to maintain the supremacy it had enjoyed for so long in past years. In order to circumvent restrictions put upon the manufacture of military optical instruments by German firms, the Zeiss companies set up branches in other countries to continue their operations. Their main branch office set up for this program was the Nedinsco firm, at Venlo in the Netherlands, and it was through this firm that they renewed their cartel negotiations with Bausch & Lomb.⁵

⁵James Stewart Martin, All Honorable Men, p. 252.

III. 1921 - AN OLD CARTEL PARTNERSHIP IS RENEWED

Bausch & Lomb who had terminated their first agreement with Zeiss in 1915 entered into a new cartel agreement on April 28, 1921, following a trip to Europe by executives of Bausch & Lomb. This agreement between the two firms was for twenty-one years during which period this technical knowledge of Zeiss was to be placed at the disposal of Bausch & Lomb.⁶

IV. SOME PROVISIONS OF THE 1921 AGREEMENT

The contract followed was a familiar pattern of an international cartel agreement sponsored by German concerns. Among the provisions of the agreement was the requirement that all new patents in the military line should be acquired in the name of Bausch & Lomb and held for the exclusive use of Zeiss. In consideration of this Zeiss received a royalty on all military apparatus sold by Bausch & Lomb, save field glasses, regardless of its inclusion in the Zeiss patents.⁷

The agreement also divided the world market for optical goods between the two firms, the provision relating

⁶Berge, loc. cit.

⁷Arnold, op. cit., p. 70.

to this division of market stated:

B. & L. obligate themselves not to sell directly or indirectly, military instruments to countries outside the United States of America and vice versa. Carl Zeiss obligate themselves not to sell such instruments directly or indirectly to the United States unless the parties have come to an agreement regarding the condition of sale and the prospective territories of distribution.⁸

It was understood that if either of the parties received bids from a source outside their exclusive area of sale, it was incumbent upon the parties to inform their partner, as well as to quote a price 20 percent above the regular selling price.⁹

The cryptic nature of the contract is illustrated in paragraph nine of the agreement which bluntly stated:

"The contracting parties agree to keep the foregoing agreement in strict confidence as regards a third party and to guard silence concerning this agreement also with their own employees as far as this may be practicable under the circumstances."¹⁰

Provisions such as this are common in international cartel agreements, the less notoriety they achieve, the less chance of incurring the wrath of public opinion.

Another provision of this cartel agreement, and one which is uncommon in these accords, called for the

⁸quoted from ibid.

⁹Borkin and Welsh, op. cit., p. 282.

¹⁰Berge, op. cit., p. 147.

establishment of a "Military Department". Paragraph four of the contract reads:

"In furtherance of the aims of this agreement, Bausch & Lomb in Rochester will create a new Department solely responsible to the Board of Directors, which is charged with the independent development of all scientific and technical tasks within the military scope and the maintenance of connections with Jena. The parties will come to an agreement as regards the heads to be placed in charge of this department."¹¹

In the military field there was an agreement between the two companies for an exchange of technological information and to a mutual exchange of patent rights acquired by either party. The possibility of a conflict of interests arising out of the obligations to the nations was anticipated, and a provision providing for such an exigency was included in the agreement. Paragraph eight states:

"The mutual obligation regarding the exchange of military designs shall be void whenever the highest home government of one party expressly demands that they be kept in confidence in the interests of the nation."¹²

It will be seen later that despite the provision to discontinue the exchange of military data in the event of war, Zeiss continued to receive valuable information on military optics till the start of World War II.

¹¹Ibid., p. 146.

¹²Ibid.

V. A MODIFICATION IN PROVISION - IN NAME ONLY

In 1926, after the terms of the agreement had leaked out, Bausch & Lomb was advised that its agreement with Zeiss was in violation of the antitrust laws of the United States. Upon the insistence of Bausch & Lomb attorneys who saw the market-dividing clause as a violation of the Sherman Act, a new contract was drawn up. The new contract was changed in form to modify objectionable sections, but the performance of the parties remained substantially the same. Evidence that this revision of the 1921 agreement was subterfuge is shown by the following memorandum of Edward Bausch, the head of Bausch & Lomb, and dated January 27, 1927, which stated:

"It is my understanding in accordance with the opinion of Carl Lomb, that we are not to bid on any military instruments for use anywhere outside the United States. The agreement is that if such inquiries come to us we are to refer them to Zeiss."¹³

VI. THE IMPLICATIONS IN THE EXCHANGE OF INFORMATION CLAUSE

The 1921 agreement as well as later agreements between the two firms provided for an exchange of information.

¹³Ibid., p. 154.

Under the contract any new developments in the military optical field were to be exchanged between the parties to the agreement. It was this provision that caused the most furor when brought to light in Senate hearings dealing with patent agreements, since Bausch & Lomb, under this clause, were required to list for Zeiss any new scientific and optical instruments manufactured for the U. S. Armed Forces.¹⁴

The same conditions were imposed upon Zeiss in respect to new discoveries in the military optical field, but Zeiss, especially after Hitler's rise to power, did not live up to the letter of its agreement. That the question of secrecy was an element of great concern to Bausch & Lomb is indicated in a letter dated July 9, 1929, from Bausch & Lomb, of Rochester, to Mr. August Lomb, of Bausch & Lomb Optical Company, of Frankfurt, Germany, concerning military transactions for April, May and June of that year; it reads:

"Heretofore the Government has merely been insistent that none of the details as regards the designs of these instruments be made public, but it seems as if the quantities, prices, etc., and the amount of the equipment purchased are also considered secret. Obviously, our agreement with Messrs. Carl Zeiss cannot work satisfactorily unless, at least, the latter information becomes common knowledge to both parties,

¹⁴Harley Kilgore, "The Menace of the Black International," National Education Association Journal, XXXIII (April, 1944) p.89.

but some arrangements must be made whereby we are assured this information will be kept in strictest confidence." ¹⁵

The report accompanying the letter was the statement of Bausch & Lomb's military department, and dealt with range finders, periscopes, telescopes, and bomb-sights. Near the conclusion of the report, relating to the optical equipment was the paragraph:

"It will be noted from the foregoing statements that not much further information can be obtained regarding competitive prices. While these bids are supposed to be public, it has lately become the practice to withhold the information from the public. Every letter and envelope from the government is marked "Confidential" and we are held accountable that the information will not become public, and that it will be treated in strictest confidence." ¹⁶

The military implications inherent in the exchange of information clause is further demonstrated by a letter from Nedinsco, Zeiss' branch in Netherlands, to Bausch & Lomb. Dated April 7, 1933, it read, in part:

"Your last monthly report has given cause to the consideration that we would be better in a position to assist you if you would report to us what kinds of instruments are under trial and use by your military service. There must be a great many questions regarding instruments for airplanes, tanks, and ships, which demand special instruments." ¹⁷

¹⁵ Bone Committee, Patent Hearings, part 2, p. 643, quoted in Borkin and Welsh, op. cit., p. 284.

¹⁶ Ibid. p. 644.

¹⁷ quoted in Berge, op. cit., p. 157.

The royalty payments which Bausch & Lomb made to Zeiss similarly included information on the military potential of various nations doing business with Bausch & Lomb. Through the medium of accounting on these payments, Zeiss kept track of all the specific types of sales made by the American firm, both within and without the United States.

In 1935, with German rearmament no longer a secret, Bausch & Lomb refused contracts with Great Britain and France for \$1,500,000 worth of military instruments. In the documents taken from the files of Bausch & Lomb, by Senate investigating committees, there were dozens of letters in which inquiries from foreign buyers of military optical instruments were replied to with indifference and the buyers referred to Nedinsco, the Zeiss branch in Holland. As an example, on March 30, 1938, Bausch & Lomb wrote the British Military Attache' in Washington, the following letter:

"In reply to your letter of March 24, 1938, we wish to inform you that the instruments that we manufactured for the U. S. War Department are 4 meter Stereo Height Finders.

"Unfortunately we have to inform you that we are not in a position to take British government orders at the present time."¹⁸

¹⁸Berge, op. cit., p. 167.

The fulfillment of any order from abroad required the permission of Zeiss, and considering the source of the orders, it is obvious Zeiss rejected them. This is the only explanation one can offer for the unusual disinterest in profitable business on the part of Bausch & Lomb.¹⁹

When the German government integrated its whole economy to meet the needs of its war effort, Bausch & Lomb found that actual disclosures of information were no longer forthcoming from Zeiss. In 1939, with Germany at war, the royalty payments due Zeiss under the cartel agreement were held in escrow by Bausch & Lomb, and relations between them were being governed by a political contingency clause in their contract.

On March 27, 1940, an indictment was returned against Bausch & Lomb, three of its officers, Carl Zeiss of Jena, and Carl Zeiss of New York, the American Zeiss representative. The indictment charged a conspiracy in restraint of trade, under the Sherman Act, in respect to the distribution of military optical equipment resulting in arbitrary, unreasonable, and noncompetitive prices. Bausch & Lomb pleaded nolo contendere and fines of \$41,000 were assessed, on May 27, 1940 and March 5, 1941, respectively.²⁰

¹⁹Borkin and Welsh, op. cit., p. 285.

²⁰Berge, op. cit., p. 255.

There was no indictment returned against Bausch & Lomb for unwittingly giving away secrets which affected the national security of the United States, but if firms engaging in cartel agreements, such as this, were amenable to prosecution for these acts, a second indictment would probably have been made. The fact that this cartel arrangement hindered the United States war effort is apparent when one considers that the shortage of optical instruments was rated as the fourth most serious bottleneck in the United States defensive program, prior to this nation's entering World War II. In its final report, the Temporary National Economic Committee, which investigated foreign patent controls over American industry, stated:

"The production of vitally important materials as optical glass and chemicals has been restrained through international patent controls and cross-licensing, which have divided the world market into closed areas. As a result the capacity of American industry to produce these materials is not adequate to meet the needs of the defense program.²¹

²¹quoted in George E. Falk, Patents and Industrial Progress, p. 63.

CHAPTER VII

I. G. FARBEINDUSTRIE A. G., THE MONOLITH OF GERMANY'S INTERNATIONAL CARTEL STRUCTURE

The point has been reached in this study where attention needs to be focused on the protagonist of Germany's cartel system, I. G. Farbenindustrie, the unquestioned leader of world cartelism, whose cartel operations affect almost every civilized nation in the world. The study of cartelism is the study of I. G. Farben since it was this firm which exploited and consummated the development of the cartel device. Because of its uniqueness in the cartel field, a careful study of I. G. Farben's background and operations should prove invaluable.

I. I. G. FARBEIN, A HISTORY OF ITS EVOLVEMENT

Germany's leading cartel in both the domestic and international sphere was the firm of Interessen Gemeinschaft Farbenindustrie Aktiengesellschaft, more commonly referred to as I. G. Farben. I. G. Farben was the largest industrial corporation in Europe in 1941, and according to the U. S. Department of Justice at that date it was the largest

chemical company in the world.¹ The influence of this chemical combine permeated the chemical industries of every civilized nation of the world. The history of this group under the Nazi regime "reads like a detective story" was the way the late President Roosevelt described its operations.² Germany's economic power was built up by chemical and metallurgical industries, and the dominant members of this giant structure were six chemical companies which eventually evolved into one concern known as I. G. Farben.

Germany's position of primacy in the field of industrial chemistry was achieved mainly because of three factors. First, Germany made an early start in the adaptation of an educational system which was geared to meet the needs of a modern industrial nation. Secondly, because of Germany's dearth of natural resources, particularly in iron, copper and oil, attention was paid to the development of synthetic materials to offset the deficiency in resources. A third factor was psychological and can be ascribed to the character of the German people, this factor involved the great drive of the

¹U. S. vs Allied Chemical & Dye Corporation et. al. in U. S. District Court for the District of N. J. (Criminal action No. 7530) returned May 14, 1942 par. 30, quoted in George Stockings & Myron Watkins, Cartels in Action, p. 414.

²Colston E. Warne, "International Cartels, A Menace to World Peace," Current History, VIII (Feb. 1945) 113.

German character for systematization and an intense nationalistic ambition.³

The Big Six chemical companies which formed the great bulk of Germany's industrial power were incorporated in 1925, and this corporate group came to be known as I. G. Farben. These Big Six of the chemical field were:

1. Bodische Anilin & Soda Fabrik, of Ludwigshafen;
2. Farbenfabriken vorm. Friedrich Bayer & Co., of Leverkusen;
3. Farbwerke vorm. Meister Lucius and Bruening, of Hoechst am Main;
4. Aktiengesellschaft für Anilinfabrikaten, of Berlin;
5. Leopold Cassella & Co., m. b. H., of Frankfurt;
6. Kalle & Co., A. G., of Elberick.⁴

Even before this formal merger, there had been numerous instances of cooperation between these firms. The first steps toward merging and cooperation came in 1904, following a trip to the United States of Dr. Carl Duisberg, the founder of I. G., and later the Chairman of its Board of Directors. During his trip to the United States in 1903, he became so deeply impressed by the American trust

³Stocking and Watkins, op. cit., p. 372.

⁴Joseph Borkin and Charles A. Welsh, Germany's Master Plan, p. 22.

movement, which succeeded in uniting competing enterprises, that upon his return to Germany the following year he informed his competitors in a detailed and extensive memorandum of his experiences in America. Thus the basis was laid for initial collaboration of interests.⁵

The three largest firms, Badische, Bayer, and Berlin, reached an agreement almost immediately, and entered into an Interessengemeinschaft, or I. G.,^{*} This agreement included a fifty year agreement to exchange information and patent licenses, reciprocity in respect to material supplies, cooperative foreign marketing, and the pooling of profits. Shortly after in 1908, Hoechst, Kalle and Cassella formed a separate cartel. The provisions of the agreement between these three smaller firms were similar to those concluded by the first three. With these mergers, the two German firms had attained an almost "absolute monopoly in the organic dyestuffs, pharmaceutical, explosive, and synthetic chemical industries of the world."⁶ I. G.'s internal integration was completed in 1916, through the amalgamation of the two groups as a wartime measure.⁷

⁵Carl Duisberg, Meine Lebenserinnerungen, quoted in Ervin Hexner, International Cartels, p. 4.

^{*}Community of Interests of Dye Industries, Incorporated.

⁶Borkin and Welsh, op. cit., p. 26.

⁷Frank Munk, The Legacy of Nazism, p. 116.

II. I. G.'S ROLE IN THE STAGE OF CONFLICT - CIRCA 1914.

Before returning to 1925 and I. G.'s formal incorporation, mention should be made of the role which this combine played in Germany's war effort in the first world war. Its operations had at that time, and again scarcely a generation later, greatly though unsuccessfully aided the imperialistic dreams of the Reich.

The role of I. G. Farben in World War I was not merely a minor one given to a corporation during the time of war, but one which conceivably could have altered the course of that first world conflict. The new type of trinitrotoluene used in German shells was perfected by I. G., as was the poison gas used to some extent in that conflict. Germany lost the war, but it was not due to the want of materials which I.G. could produce for the fatherland. Major Lefebure in "The Riddle of the Rhine" succinctly stated the value of I. G. to the German war effort during the first World War when he said:

"On broad lines, the pre-war and war activities of I. G., produced the same result as an attempt to strangle the economic life of possible opponents, enfeebling their resistance to the subsequent delivery of a hammer blow designed to take maximum advantage of the situation thus created. Twenty years or more under the regime of a forceful economic policy, not without its sinister aspects prepared the ground by weakening us in the concentrated chemical warfare which ensued.

"The success of this policy maneuvered us into such a position that we barely escaped defeat under the hammer blows of German chemical aggression. This in fact appears to have been the German conception of modern war in its relation to industry."

I. G. was stronger at the conclusion of the war than at its start, and this is attributable to the prodigious growth of production which occurred during the hostilities. Following Germany's defeat, the majority of the industrial concerns suffered greatly from the loss of wartime contracts, but I. G. Farben's industrial power remained relatively unscathed by disarmament edicts. The foreign representative of the Du Pont commented on this situation in 1920, saying "disarmament is a farce while Germany retains organic chemical monopolies."⁹

III. FORMAL INCORPORATION AND GROWTH

Having explored the background leading up to the merger of the Big Six in the chemical field, attention is now directed to its growth since its formal incorporation in 1925. I. G.'s operations and control of Germany's chemical industries expanded rapidly from this date. By 1930,

⁸V. Lefebure, The Riddle of the Rhine, quoted in Borkin and Welsh, op. cit., p. 29.

⁹Hearings, Special Committee Investigating the Munitions Industries, U. S. Senate, 73rd Congress., Report #944, quoted in Borkin and Welsh, ibid., p. 32.

the capital stock of this dye combine had reached the total of 1,100,000,000 marks and the number of workers reached 100,000.¹⁰ By the time the Nazis took control of the government, I. G. owned 35 percent of all invested capital in the chemical industry and employed over one-third of all employees. These figures do not include partially or completely owned and controlled subsidiaries, and if these were included, these figures would no doubt be doubled.¹¹ By 1931, I. G. had reached a phenomenal size with 177 subdivisions* covering a variety of fields.¹²

IV. THE INVETERATE ORGANIZER -

I. G. AND INTERNATIONAL CARTELS

It was estimated that by 1939, I. G. was a party to or the actual promoter of several hundred international cartel agreements. A list of the products included in its cartel agreements would easily fill several pages. I. G. was a party to every cartel of significance that existed in the chemical and related fields between 1934 and 1939. It was agreements such as these that made I. G. Farben the greatest international combine ever

¹⁰Franz Neumann, Behemoth, p. 16.

¹¹Robert A. Brady, Business as a System of Power, p. 26.

*See appendix for partial list.

¹²Colston L. Barnes, loc. cit.

founded in Germany and its operations represented the "acme of Pan-Germanism in the economic sphere."¹³

The products which were involved in I. G. Farben's international cartel agreements read like a Who's Who of vital commodities. Items such as pharmaceutical drugs, magnesium, synthetic rubber, and potash, were all included in the family of I. G.'s cartelized products. The operation of these cartels, and their latent effects upon foreign countries should prove interesting reading to those who view cartels as solely economic entities.

V. I. G. FARBEN AND PHARMACEUTICAL AGREEMENTS

I. G. Farben took the lead in setting up international cartels dealing in pharmaceutical products, and as a consequence its power reached millions of people in the far corners of the world. One of the vital products which I. G. controlled was atabrine, a coal-tar derivative used in the treatment of malaria. Before I. G. developed this synthetic quinine, the natural quinine in the world was mainly in the hands of Dutch interests, because the Dutch had political control over Java where the cichona bark, from which quinine was extracted, was found. Atabrine was claimed superior

¹³Borkin and Welsh, op. cit., p. 34.

to natural quinine because of its greater potency. I. G. Farben obtained a patent on this synthetic quinine, and through the use of licenses limited the amount that was produced in the world. This control of atabrine by I. G. proved to have unfortunate effects upon the United States, which entered World War II with an inadequate supply of this product, vitally needed by the Armed Forces in the malaria-infested regions of the South Pacific.

In the United States, only one company had a license to manufacture atabrine under the I. G. Farben patents. This was the Winthrop Chemical Company, a subsidiary of Sterling Products, with whom I. G. had other dealings. Commenting on the effect of I. G.'s control over this vital drug, Assistant Attorney General Thurman Arnold, who investigated the cartel agreement, as head of the Antitrust Division of the Department of Justice stated:

"A single patent controlled by I. G. Farben, dictated the terms by which this essential drug could be manufactured in the United States. . . . Today the situation is safeguarded by the seizure of the German rights by the Alien Property Custodian. But the spectacle of the production of this essential drug, left so long to the secret manipulation of a German-American combination during a period when Germany was preparing for war against us, is too shocking to need elaboration." ¹⁴

¹⁴Thurman Arnold, Atlantic Monthly, October 1942, quoted from ibid., p. 175.

VI. I. G. AND STERLING PRODUCTS - DRUGS AND DECEPTION

I. G. also took the lead in securing patents on other pharmaceutical products needed to cure the ills of the worlds' afflicted. One such patent was secured on "Bayer 205", a medicinal formula which was a cure for sleeping sickness, so common in Africa in the 19th and early part of the 20th century. This discovery was made by Farbenfabriken vorm. Friedr. Bayer & Company, of Leverkusen, Germany, shortly after the end of World War II. This company was one of the original Big Six chemical companies which had merged into I. G. Farben as a wartime measure in 1916. The Germans refused to divulge the formula for Bayer 205, instead they sought to exploit the great value of this discovery by offering to exchange the secret process in return for the restoration of Germany's lost colonies in Africa. They were thwarted in their efforts by the Allied powers which refused to consider the exchange.¹⁵

The Alien Property Custodians Office, in 1919, auctioned off one of the most important prewar I. G. Farben subsidiaries

¹⁵Berge, op. cit., p. 55.

in America, the Bayer Company, of New York, to the highest bidder. The Bayer interests in America, including seized patents, were bought by the Sterling Products Company of West Virginia. This company whose sole interest was in pharmaceutical products, promptly sold the dyestuffs branch of its acquisition to another firm. The most valuable asset in the purchase was the "Bayer Cross", the trademark of the Bayer Company of Germany, which was well known throughout the world.

Though they had acquired the right to use this trademark in the United States, there was some question as to Sterlings' rights to use the trademark in other areas of the world, since the purchase did not confer clear rights and titles to some of Bayer's properties in South America, and in England. Rather than engage in long litigation with the German Bayer, Sterling concluded an agreement with I. G. Farben in New York on October 28, 1920.¹⁶

This cartel agreement provided that competition between the two firms in South America was to be eliminated; the company with the cheapest cost was to supply the market.

¹⁶Hexner, op cit., p. 372.

The agreement gave the German firm the whole South American market, save for aspirin, which Sterling was to provide.¹⁷

The political implications of this cartel agreement were brought to light after Germany's entrance into World War II, when Sterling agreed to have its subsidiary company, Winthrop Chemicals, supply pharmaceuticals to I. G. Farben's South American agents without identifying labels. These agents in turn affixed I. G. labels on these products, thereby preserving I. G. customer good-will and serving as a good reminder of the fact that Germany was ostensibly being blockaded, but still could supply its customers. As late as November 1940, according to testimony given to a Congressional Committee, the president of Sterling assured I. G. of the continuance of his effort to protect I. G. interests in South America.¹⁸

This agreement nurtured other political effects which proved inimical to the interests of the United Nations in World War II. The provision that entitled I. G. to have exclusive markets, in the great majority of commodities in Latin America, was an important means of "extending Axis influence there;"¹⁹ In addition the sale of products by

¹⁷Borkin and Welsh, op. cit., p. 140.

¹⁸Ibid., p. 142.

¹⁹"Cartels and Private Government," The Commonwealth Vol. XXXIX (February 25, 1944) p. 460.

American concerns using deceptive labels such as Sterling, provided the source of dollar balances for the German government.²⁰

VII. I. G., ALCOA AND DOW CHEMICAL

- A TRIUMVIRATE IN MAGNESIUM

Having examined I. G. Farben's pharmaceutical cartel operations, we now turn to I. G.'s role in the magnesium cartel, and examine its relationships with its American partners. The magnesium cartel serve as another example of the effect the German cartel system had upon the national defense potential of foreign nations. As a consequence of both domestic monopoly and international cartel arrangements in this industry, which induced Germany's potential competitors to curb production, Germany secured an initial lead in the production of magnesium. The lead was so great, that I. G. remained substantially unchallenged until 1941. Production estimates conducted by the U. S. Bureau of Mines revealed that Germany produced 61 percent of the world's total output of magnesium in 1937, and the United States

²⁰"Patents, Weapon of Monopoly." New Republic, LIX (February 14, 1944) p. 7.

produced only 10 percent. By 1940 Germany was still producing one-half of the world's output, which the United States was producing about 14%.²¹

Magnesium is one of the most important metals used in industrial production both in time of peace and war. When this metal is properly alloyed, it can fulfill many of the functions of Aluminum with greater efficiency, since it is lighter, has greater resiliency and has greater strength. Among its military uses are aircraft construction, incendiary bombs and flares. The two principal producers of magnesium in the United States during the years 1919-1927, were the Dow Chemical Company and the American Magnesium Company, a subsidiary of the Aluminum Company of America. In 1927 the two companies entered into a cross licensing agreement, under which the American Magnesium company stopped its production of crude magnesium, arranging to buy what it needed from Dow.²²

In 1931, I. G. Farben, the principal producer of magnesium in Germany entered into an agreement with the Aluminum Company of America known as the Alig agreement.

²¹Berge, op. cit., p. 220.

²²Hexner, op. cit., p. 231

This agreement called for a pooling of patents and technical knowledge on magnesium production and fabrication. In addition, the contract called for the establishment of a joint corporation, the Magnesium Development Company, with ownership equally divided between Alcoa and I. G. The Magnesium Development Corporation was primarily a patent holding corporation to which I. G. transferred some fabrication patents and Alcoa contributed process patents.

I. G. and Alcoa were to share equally in the benefits from this agreement, but in reality I. G. was the primary beneficiary. By the control of patents and technology turned over to the Magnesium Development Corporation, I. G. limited the use of these processes in the United States, and excluded Alcoa and other potential American licensees from foreign markets. The contract also limited magnesium production in the United States to 4000 tons a year if use was made of the production patents.²³

The Dow Chemical Company, the only other magnesium company in the United States entered into a patent holding agreement with Magnesium Development Corporation in January 1934.²⁴ This was followed by a sales contract

²³Berge, op. cit., p. 222.

²⁴Borkin and Welsh, op. cit., p. 229.

concluded between I. G. and Dow Chemical Company which was signed on September 5, 1934. This contract provided for restrictions of production and sales. Under this contract a maximum capacity of 6000 tons a year was put on Dow's output, and this restriction was still in effect in 1940, when German production of magnesium was estimated at 60,000 to 75,000 tons, or over ten times the capacity of American industry.²⁵

Dow Chemical also agreed to a preferential price clause in sales to I. G., and agreed to restrict export sales as requested by I. G. The price at which magnesium was sold to I. G. by Dow was to be at least four cents less per pound than that to Great Britain, and was to be one-third less than the price on the American market. Dow Chemical was not allowed to export to any European customer, save one customer in Great Britain, and this was limited to 150 tons per year.

Germany in the years to follow purchased a large part of Dow's magnesium output, so that American industrialists had little chance to become familiarized with the properties of magnesium. During 1934 and 1935 Dow delivered

²⁵Guenter Reimann, Patents for Hitler, p. 216.

to I. G. more than 3,800,000 pounds of magnesium out of Dow's total production of slightly more than 4,000,000.²⁶ These huge annual sales to Germany were made while English concerns were in need of more magnesium. The result of I. G.'s dominance in the field of magnesium made England dependent primarily on Germany for its magnesium imports. In 1938 England imported 1500 tons, or 87% of its total imports from Germany, while importing only 186 tons from the United States.²⁷

The power of this cartel was felt with the advent of the second world war. Britain's dependence on Germany for its magnesium supply was a great hindrance to its war effort, since it was abruptly cut off. It also handicapped the preparedness program of the United States following the start of war in Europe. The overall effect of this arrangement between Alcoa, I. G., and Dow was to restrict production and retard the development of the industry in the United States.²⁸

The reasons for this agreement were clear, Alcoa wanted a monopoly in magnesium production in the United States.

²⁶Berge, op. cit., p. 223.

²⁷Borwin and Welsh, op. cit., p. 233.

²⁸Berge, op. cit., p. 224.

Moreover it was afraid that the development of magnesium might diminish the sale of aluminum. The relative cheapness and greater efficiency of magnesium posed a threat to aluminum which Alcoa controlled, and extensive production of magnesium would have impelled Alcoa to reduce the price of aluminum. I. G.'s purpose in this venture was also clear, in addition to the economic advantage, there was also the political advantage in that "the less magnesium produced in America, the greater the military strength of the Third Reich."²⁹

In Europe, where I. G. Farben was the dominant member of the European magnesium cartel, the story was much the same. Production quotas and patent agreements did their work in restricting and retarding non-German magnesium output. The Nazi government had once again used the cartel agreement to strengthen its own position in relation to the rest of the world. It was in reference to cases such as this which led Thurman Arnold to comment:

"When Hitler came to power, he found the cartelized society of the democracies a ready instrument for economic aggression. He assisted and encouraged the monopolists in democratic countries to restrict their own production in Germany, he played on their fear of surplus production, their desire to hold up their prices and stabilize their control. . . . Hitler doubled

²⁹Neumann, op. cit., p. 217.

"and tripled the production of aluminum and magnesium while the democracies stood still, and he operated similarly through a long list of basic materials."³⁰

VIII. THE RUBBER SHORTAGE IN THE U. S.

- STANDARD OIL & I. G.

Prior to 1926, listed among Germany's prime raw material deficiencies were oil and rubber, for within her own borders there was little oil and no natural rubber. In 1926, I. G. Farben discovered a process by which petroleum could be made from coal, and Germany had a copious amount of coal; this discovery caused considerable consternation abroad, particularly in the United States, where the Standard Oil Company of New Jersey had a partial monopoly in respect to petroleum. Officials of Standard Oil arranged a meeting with I. G. officials in an attempt to reach some type of agreement which would satisfactorily protect the interests of both firms.

Out of this meeting came an arrangement which would give each company a predominant position in their main field, Standard in the petroleum field, and I. G. Farben in chemicals. These arrangements which began in 1927 were concluded in 1929 with the signing of four documents relating to various subjects agreed upon in the accords.

³⁰Thurman Arnold, "How Cartels Affect You," American Mercury, Vol. LVI (March 1943) p. 329.

The essence of the agreement was that I. G. was to stay out of the oil business, while Standard was to refrain from chemical undertakings not related directly to petroleum. This idea was embodied in the Division of Fields agreement between the two firms. A second part of the compact provided for the transfer to a jointly owned company, Standard - I. G., rights in the hydrogenation process in all countries, with the exception of Germany. A third document of the agreement provided for coordination in respect to peripheral cases between the oil and chemical fields, whenever the two overlapped. The fourth part of the agreement, called the German sales agreement, provided for the fixing of shares of the respective parties in the German market for petroleum products.³¹

In 1930, the two companies concluded an agreement, with the intent of implementing the aforementioned Division of Fields Agreements, known as the Jasco Agreement (Joint American Study Company), stipulating that when either party developed any new chemical process it should offer the other an option to have rights in the process assigned to a jointly owned company, Jasco, Inc. Jasco was to make experimentations on new processes and to function as a

³¹Stocking and Watkins, op. cit., p. 93.

licensing agency for the exploitation of patents on promising new chemical processes.³²

IX. BUNA RUBBER DEVELOPMENT - AN ISSUE OF PATENTS

Under the Division of Fields agreement between Standard and I. G., the development of synthetic rubber was assigned to I. G., since the processes used in its composition were in the chemical rather than the petroleum field. Research on its development was carried out by both, however, since Standard regarded synthetic rubber development as coming within the purview of the Jasco Agreement, dealing with joint development of borderline cases. I. G. as early as 1932 had developed a synthetic rubber, designated as Buna Rubber, but did not give its formula to Jasco till after the start of the second world war in 1939, despite the fact it had been in full scale production in Germany since 1934.³³

I. G. was able to prevent Standard Oil from committing itself to a positive program of synthetic rubber development during these five years by withholding the technology it possessed on the process. As early as 1935,

³²Ibid., p. 95.

³³Ibid., p. 97.

Standard realized that I. G. was not complying with its agreement to exchange full and complete information on Buna rubber. In the words of an official of Standard Oil: "The Hitler government does not look with favor upon turning the invention over to foreign countries." ³⁴

Nazi officials regarded Buna rubber as a strategic material and declined to give permission to I. G. to release its processes to its cartel partner in America. Standard Oil received little, if any, information on synthetic rubber from I. G. This fact is made clear in the following excerpts from Standard Oil documents:

"Our people have never made Buna . . . I. G. has not furnished anyone technical information."

"The only information our people have is derived from published patents."

"Information . . . about the technical aspects of this development has not been forthcoming as a result of the German government's refusal because of military expediency to permit I. G. to reveal such information to anyone outside Germany."³⁵

When other corporations sought to manufacture Buna rubber, they were faced with the strong opposition offered by I. G. and Standard Oil. A provision of their agreement

³⁴Hearings, Special Committee Investigating the National Defense Program," U. S. Senate, 77th Congress, 2nd Session, 1942 - quoted in Borkin and Welsh, op. cit., p. 193.

³⁵Berge, op. cit., p. 213

took this eventuality into account:

"Both parties agree that in event of an attack by a third party brought against either of them directly or indirectly, in attempted derogation of the title to patent rights transferred, hereunder, they will cooperate loyally in defense of such attack."³⁶

Two American companies attacked the patent rights on Buna; the Goodrich and Goodyear Rubber Companies attempted the production of Buna, but the former was sued for patent infringement and the latter formally threatened with suit by the Standard Oil Company under the I. G. patents. These events took place just two months before Pearl Harbor in October 1941.³⁷

X. STANDARD GIVES BUTYL RUBBER INFORMATION TO I. G.

Despite I. G.'s refusal to divulge the Buna processes to Jasco, Standard Oil decided to give its own knowledge of butyl rubber, a Standard Oil synthetic rubber discovery, to I. G. This type of synthetic rubber could be made more easily and cheaply, but was not as good for rubber tires as Buna. Nevertheless, Standard Oil conveyed to I. G. full information on its discovery. Commercial

³⁶Reimann, op. cit., p. 54.

³⁷Berge, op. cit., p. 212.

considerations prompted this move. In the words of a Standard official,

" . . . certain difficulties still exist which prevent our I. G. friends from giving us full technical information In view of the very genuine spirit of cooperation which (I. G.) displayed, I am convinced that it is not only the right thing to do, but the very best thing from every standpoint to pass on to them full information on the Copolymer (butyl) at this time. I do not believe we have anything to lose by this which is comparable with the possible benefit to all of our interests."³⁸

With the outbreak of war in Europe, I. G., realizing that it could no longer prevent the use of I. G. patent specifications in countries at war with Germany, concluded an agreement with Standard Oil, in the Hague, Holland, on September 25, 1939. Under the provisions of this agreement Standard was free to license companies under the I. G. patents to make Buna in the United States, the British and French Empires and Iraq. I. G. retained exclusive right to the processes in the remainder of the world. In exchange for this, I. G. was to receive consideration in the form of a high royalty rate from all licensed firms under the I. G. patents.³⁹

³⁸Hearings, U. S. Senate, loc. cit., quoted in Borkin and Welsh, op. cit., p. 194.

³⁹Stocking and Watkins, op. cit., p. 102.

XI. WORLD WAR II AND THE RUBBER SHORTAGE

-STANDARD STANDS ACCUSED

With the entrance of the United States into World War II, and the natural rubber supply cut off by Japanese conquests in Asia, the problem of producing sufficient synthetic rubber came to the fore and became the source of considerable controversy. Standard Oil and its cartel agreement found itself blamed for the U. S. rubber shortage. The position Standard found itself in arose from the fact that it never considered the political implications of its cartel agreement. The Nazis, the public now knew, were using synthetic for at least one-third of their rubber needs. Much of the might of the Wermacht was attributable to synthetic rubber. It was, "on Buna tires that panzer divisions rolled through Northern France and the lowlands."⁴⁰ With the disclosure of these facts, Standard stood accused of being a culpable party to the rubber shortage among the United Nations.

Senator Harry S. Truman, the head of a Senate Committee investigating the national defense program in 1942, had even shouted "treason" when the relationships

⁴⁰Fleming MacLaesch and Cushman Reynolds, Strategy of the Americas, p. 20.

between Standard and I. G. were being investigated.⁴¹
 Before this same Senate Committee, Assistant Attorney General Arnold hurled numerous charges against the conduct of Standard and its relations with I. G. President William S. Parish of Standard Oil gave answer to the accusations; a brief resume' of the charges and rebuttals makes interesting reading:

Arnold: "Under the cartel between Standard and I.G., Germany got the benefits of the U. S. technological developments; the U. S. did not get Germanys."

Parish: "The cartel gave the United States its Buna knowledge among other things."

Arnold: "Standard delayed the use of Buna rubber in this country because the Hitler government did not wish to have this rubber exploited here for military reasons."

Parish: "Nobody from Standard Oil to Jessie Jones wanted to exploit synthetic rubber at 20 to 40 cents a pound, except for minor specialty products, as long as natural rubber was available at 15 cents a pound."

Arnold: "When Standard Oil developed a new synthetic rubber called butyl, it turned its process over to I. G. Farben, and refused to give it to the U. S. Navy."

Parish: "Butyl was no good to Germany because it is made of oil and oil is Hitler's great lack. In 1939 the company gave samples to the Munitions Board which turned them over to several companies for experiments. Though cheaper than Buna, they decided that butyl was not as good."⁴²

⁴¹ "Dinner Table Treason," Time, Vol. XXXIX
 (April 6, 1942) p. 15.

⁴² Ibid.

Upon the conclusion of the accusations and answers, up spoke Senator Truman, the head of the Committee, stating that "even after we were in the war Standard Oil of New Jersey was putting forth every effort to protect the control of the German government over a vital war material."⁴³

To companies such as Standard Oil of New Jersey, who were squirming under the governments inference that they had been dupes of the Nazis, Attorney General Arnold offered consent decrees. Standard of N. J. accepted the decree in 1942, and was fined \$50,000. As a result it formally terminated its relations with I. G. Farben during the war. Synthetic rubber patents held jointly with I. G. Farben were, by terms of the decree, made available in the United States on a royalty-free basis.⁴⁴

Following the filing of consent decrees by Standard Oil, and submitting to the provisions of the decree, Standard Oil of N. J. bought full-page advertisements in newspapers all over the country in an attempt to explain its relationships with I. G. Farben. In these advertisements Standard publicized its claim that the United States

⁴³Ibid.

⁴⁴"Pending on Patents," Business Week, Vol. DCLX, (April 22, 1942) p. 20

had benefited from the Farben arrangement because Standard had received much more technical information from I. G. than they had given I. G. in return. Because under the agreements much of the basic research was to be conducted in Germany, this claim was true to some extent.⁴⁵

When copies of the Standard Oil advertisements came to the attention of the German Economic Ministry, the Ministry demanded a full report from I. G. Farben on the charge that Standard had the better of the exchange. Following the war, from the files of I. G. Farben, the answer to the Economic Ministry on this matter was found. The contention of the Farben report was that the German firm had received from Standard Oil several important new links in their own chain of technology, whereas the ostensibly great quantities of information they had revealed to the American firm had left extensive gaps to be filled by new research and development before they could be utilized.⁴⁶

⁴⁵James Stewart Martin, All Honorable Men, p. 69.

⁴⁶Ibid.

XII. A CURSORY VIEW OF OTHER I. G. FARBEN ENTERPRISES
IN THE WESTERN HEMISPHERE

I. G. Farben and its cartel agreements were as successful in penetrating other areas of American industry as it did the petroleum field. One of its main interests in the United States was the General Aniline Works. This company was part of American I. G., which had been organized by I. G. Farben in Switzerland in 1928, and later had its holdings transferred to the United States. General Aniline Works and its parent company, American I. G., were engaged in the dyestuffs and pharmaceutical business in the United States. In December 1939, American I. G. was reorganized to some degree, and its name was changed to General Aniline and Film Company.⁴⁷

To every charge that it was a German-owned company, General Aniline and Film Company officials replied that it was Swiss owned. When other I. G. Farben agencies were unable to get supplies in the British Empire and in the blockade of the South American market, General Aniline and Film provided the necessary materials. General Aniline

⁴⁷Borkin and Welsh, op. cit. p. 116.

and Film was I. G. Farben's biggest enterprise in the Western Hemisphere, and was described as "the foundation of Germany's imperial power in North and South American pharmaceuticals, chemicals and other materials."⁴⁸

The combined investigative powers of the United States government was unable, even as late as 1949, to prove the German ownership of General Aniline and Film Corporation.⁴⁹

I. G. Farben had other cartel connections in the United States. Among the more important ones, was its agreement with the Du Pont Chemical Company, and one of Du Pont's subsidiaries, the Remington Arms Company. As late as the winter of 1941, Du Pont was prevented by its cartel agreement with I. G. to sell certain types of material to Great Britain, material vitally needed in the defense of that country. When Great Britain in 1941 attempted to place an order for tetrazene-primed ammunition, the cartel agreement between Du Pont and I. G. prevented the sale. In this particular case, the patent attorney for the Remington Arms Company wrote a memorandum stating that, "The further sale of tetrazene-primed ammunition to

⁴⁸I. F. Stone, "The Cartels' Washington Friends," The Nation, Vol. CLVIII (February 19, 1944) p. 210.

⁴⁹Martin, op. cit., p. 67.

"the British Purchasing Commission or to the Government of the Union of South America, or to the Government of Canada is most undesirable by reason of our Tetrazene Contract with R. W. S."⁵⁰ R. W. S. stood for Rheinische Westfälische Sprengstoff, a wholly owned subsidiary of I. G. Farben.

Another example of how I. G. Farben's cartel agreements affected the military potential of nations abroad, was the agreement between that firm and the Diamond Match Company of the United States. The effect of the agreement between these firms was virtually to halt the American production of Chlorate of potash, which was essential to match production and to the production of certain types of ammunition, during the two decades preceeding World War II. The results of the agreement were a grave shortage of chlorate of potash for military purposes and match production during World War II.⁵¹

The aforementioned cases gave support to the contention of some observers that American chemical companies sought the easy way out in the battle for world markets. These U. S. firms, it was said, had "hardening

⁵⁰Berge, op. cit., p. 217

⁵¹Ibid., p. 186.

of the arteries." They were no longer aggressive and would rather enter an agreement providing for a protected market than fight for an ever increasing share of it. Anti-trust officials of the Department of Justice cited cases where powerful American chemical companies had been reluctant to enter Latin American markets protected by cartels in prewar days in the fear that after the war I. G. Farben might retaliate.⁵²

XIII. I. G. FARBEH ROLE AND EFFECTS ON EUROPEAN INDUSTRIES

I. G. Farben's principal cartel partner in Britian was the Imperial Chemical Industries, Ltd. Unlike I. G.'s dealings with American firms, those conducted with British enterprises were all aboveboard, since there were no anti-trust laws to hinder their cartel agreement. I. G. and Imperial Chemical Industries eliminated what market rivalry remained in the dyestuffs trade in 1938 by the establishment of a jointly owned corporation, Trafford Chemicals, Ltd., to manufacture certain dyestuffs in England. This cooperation by cartel agreement was being negotiated at a time

⁵²"Patents Attacked," Business Week, (November 27, 1943) p. 18.

when the British and German governments were faced with a war crisis. The precedent for this cooperation had come from earlier dealings in nitrogen and nitrogenous fertilizers, alkalies, and explosives. Like the majority of cartel agreements, those between I. G. and I. C. Industries had restrictive clauses as to output and control of new processes. The British Government claimed that restrictive clauses in cartel agreements had no effect upon Britain's national defense. The British, with a long background in cartel dealings, tended to view cartel agreements as solely economic in character. They did not see any political nuances in their operations. More will be said about the British attitude in this matter in a later chapter.⁵³

I. G. Farben was equally active in the industries of Eastern Europe through the cartel arrangements it possessed in that region. Through the use of the cartel I. G. was able to exercise considerable influence over the productive processes and outputs of these industries. The purpose behind this penetration of Balkan industries was to implement a continental economy plan, (GROSSraumwirtschaft) which required the Balkan nations to furnish

⁵³Stocking and Watkins, op. cit., p. 489.

Germany with more foodstuffs, raw materials, oil and minerals in return for which they were to receive from Germany a larger amount of chemicals, fertilizers, pharmaceuticals, and cosmetics, in addition to machinery and technological and engineering services.⁵⁴

I. G. Farben went beyond the more prosaic functions of a chemical enterprise when in 1935 it undertook the organization of oil-seed production in Rumania and Bulgaria. I. G. offered seeds to the farmers of Bulgaria, Rumania and Greece on a credit basis. Experienced German agronomists taught the natives how to handle new crops, such as soybeans and flax. The German government agreed to buy the entire crop at prearranged prices, which were at times above the world market prices. Through furnishing technical advice, seeds, fertilizers and insecticides, I. G. was able to expand its market, and by setting up a subsidiary concern obtained the right to export Rumanian oil-seed production exclusively to Germany. This was a typical case of I. G.'s economic penetration in the internal economy of foreign countries, somewhat similar

⁵⁴Karl Falk, "German Industrial Octopus," Current History, III, (Nov. 1942) p. 215.

to the present Point Four Program, except the objectives were less magnanimous.⁵⁵

In the industrial field, I. G. took advantage of a Rumanian law of 1936 which granted a protective monopoly for a limited period of time to industrial enterprises not previously found in the country. In August, 1937, I. G. Farben acquired, as a result of the law, the I. C. A. (Alba) factory in Bucharest to manufacture anilin dyes and was able to exclude all competitors in this area.⁵⁶

In the years immediately preceeding the war, Germany had penetrated and obtained influence in the industries of this region through the licensing of such processes as the Buna process for synthetic rubber, the Fischer-Tropsch and Bergius processes for making motor fuels from coal, various processes for making staple fibre, nitrogen-fixation processes, and similar chemical processes. I. G. was the leader in this Germanization of Balkan industries, and Germany's position in this area was to prove helpful to their cause with the advent of World War II.

With Germany's entrance into the war, the Danubian industries were included in the peripheral cartel system

⁵⁵ Ibid. p. 221.

⁵⁶ Ibid. p. 220.

of Germany. Cartels regulating production and prices, and assigning market quotas were reorganized and renewed in many fields in these Eastern European industries. These cartels which had an important part in German continental economic plans, and I. G. Farben, through long membership and leadership in cartels, was able to utilize its position in this region to the best advantage. Because of the role it played in this area, I. G. Farben was said to be the "outstanding instrument of the German government in consolidating Germany's position in Southeastern Europe and in unifying the continental chemical industry."⁵⁷

XIV. I. G. FARBEIN - A SUMMARY OF THE POLITICAL EFFECTS OF ITS CARTEL AGREEMENTS

The international ramifications of the cartel system in which I. G. Farben played a dominant role give the impression that I. G.'s functions were not solely confined in the economic realm. From the facts disclosed by governmental agencies and committees, as well as on the majority of writers in the matter, I. G. Farben should be designated as an "ecopolitical" organization, rather than solely as a profit-making organization, motivated by the quest for economic gain.

⁵⁷Ibid., p. 223

It was stated before the Temporary National Economic Committee in 1942, that the "colossal ramifications" of I. G.'s interests cannot be exhaustively indicated by any type of study. Joseph Borkin and Charles A. Welsh had the following statement to make about the extent and ramifications of I. G.'s operations in their book dealing with German cartels:

"It is probable that even after the protracted investigations by students and by government which have been taken in recent years not all of I. G.'s links to American industry or to South American markets have been brought to light. It is even more certain that all its relationships outside this hemisphere have not been disclosed. . . . The terms "monopoly and cartel" are inadequate when applied to I. G. It is an agglomeration of monopolies and an aggregation of cartels. . . . Perhaps by compounding the idea of universality and absolute control a term such as "panopoly" would be more fitting."⁵⁸

Senator Harley Kilgore, who was the Chairman of the Senate Military Affairs Committee, which dealt with the technical problems involved in the war mobilization of the United States, said that the German cartels, "led by the great chemical trust of I. G. Farben, became the economic arm of the Hitler government, which in turn became the political arm of the cartels. Both worked together in easy harmony for the domination of the world economically and politically."⁵⁹

⁵⁸Borkin and Welsh, op. cit., p. 33.

⁵⁹Harley Kilgore, "The Menace of the Block International," National Education Association Journal, Vol. XXXIII, (April 1944) p. 89.

Though the majority of evidence condemns I. G., as the economic arm of the Nazi government, some reports indicate that the obeisance of I. G. officials to the plans of the state was not achieved without some protest on their part. The "Foreign Policy Reports" for October 1944, stated:

"It may be noted that in the case of I. G. Farben-industrie there was reluctance on the part of the former directors to adhere to the requirements imposed by the Hitler regime, and they are known to have appealed to their foreign partners in an attempt to halt the process. Records indicate that they resisted for a time at least, the increased development of some synthetic industries within Germany - developments which appeared uneconomic to the original management."⁶⁰

Economic objectives may have been the intent of the early directors, but these objectives were peremptorily modified to serve the political aspirations of the Nazi regime.

Despite this nugatory resistance offered by some directors of I. G., the firm hand of the state was discernible in the structure of the organization. An example of the agreement on aims pursued by both the state and I. G. was the plan to expand beyond the continent of Europe. This plan was initiated by I. G. in 1942 with the establishment of the Fluszipatwerke G. m. b. H., with capital totalling 800,000 reichmarks, to mine and manufacture fluorspar and other ~~fluorides~~ ^{fluorides} used in making such

⁶⁰"Role of Cartels in Modern Economy," Foreign Policy Reports, Vol. XX (October 15, 1944) p. 187.

items as optical glass, steel and aluminum. This new company had as its objective the development of fluorspar deposits in Germany, and in other European countries as well as "overseas territories belonging to continental states."⁶¹

The political and economic effects of the international cartel operations of I. G. Farben industries upon various nations have been briefly described. The writer will return to the destinies of I. G. Farben in the post-war period in a later chapter.

⁶¹Falk, op. cit., p. 224.

CHAPTER VIII

GERMANY'S CARTEL SYSTEM AND ITS POLITICAL AND ECONOMIC EFFECT UPON INDUSTRIES AND GOVERNMENTS ABROAD

I. CARTELS AND THEIR RELATION TO TOTALITARIANISM

Cartels have acquired their nefarious reputation, particularly in the United States, because they are associated with the economic aggression of German totalitarianism. Germany's record of militarism and aggression has not helped the reputation of cartels, which the popular mind invariably associates with Germany. Investigations relating to the effects of cartel agreements between German and American firms upon the National Defense preparations of the United States have further served to denigrate international cartels in the American mind.

Inability to disassociate cartel policies from German aggression is not only true of the average person, but also of the students of cartels. A survey of the writings of the cartel system reveals that most writers condemn the system for its susceptibility to misuse by the totalitarian governments. The international cartel system is not a harmful system per se, but in its structure and procedures lies the nucleus which can give

fruition to totalitarianism and militarism. This relationship between totalitarianism and cartels was aptly stated by Wendell Berge in his writings on cartels. He said:

"Totalitarianism represents simply the ultimate consummation of cartelism - the final, full expression of the reactionary forces stemming from special privilege. In totalitarian states all industrial enterprise is subservient to the predatory interests and fear dominated will of a government which openly flouts the democratic principle of the consent of the governed."¹

The simultaneous growth of totalitarianism and cartels in Germany during the first forty years of the twentieth century led another writer to comment that "it is history that the cartel system is always ripe, with the passivity of a trollop, for the worst uses of nationalistic passion."² The political implications inherent in the structure of cartelism as practiced by Germany will be the subject of discussion in this chapter.

The opinions of numerous writers will be analyzed and appraised in an attempt to gain an insight into the motives of the German cartel agreements. Were Germany's international cartel arrangements solely animated by the profit motive, or were they a form of politico-economic

¹Wendell Berge, Cartels, p. 4.

²"No Peace with I. G. Farben," Fortune Vol. XXVI, September 1942, p. 107

machinations designed to debilitate the economies and defensive efforts of nations abroad? These are the questions this chapter will be concerned with, and the answers given can be used as a partial criterion in evaluating the worth of cartels in the economic structure of states, at the present time and in the future.

It has been claimed by some that under the aegis of the Nazi regime, the German cartel system passed through an ultimate subtle evolution. The system, these critics say, became "the direct politico-economic instrument of the Nazi party at home and abroad, wielded with the single aim of rearming Germany for war."³ Other observers of cartelism in Germany went further to say, "what in other countries is lauded as patriotic becomes a dangerous manifestation of nationalism when its occurrence takes place in Germany."⁴

Opinions as to the part played by German cartels in international relations may differ, but one conclusion seems justified, namely, that cartel activities do affect the political aspects of international organization, be they German or otherwise. The power of the larger cartels, and their decisions were often "more important than those

³ Ibid.

⁴ Louis P. Lochner, Tycoons and Tyrants, p. 34.

of a sovereign political entity such as Holland, Denmark or Portugal."⁵ How this power represented by cartels was wielded by Germany is appraised in the following pages.

II. AGGRESSIVE DESIGNS, CARTELS AND GERMANY

- AN EARLY PROTOTYPE

That the cartel system in Germany was an instrument of national policy which led to militarism and war was a discernible fact long before the rise of Hitler to power. Some students of German cartels in the pre-World War I period cite the great growth of cartels in the first decade of the twentieth century as being a contributory factor in the starting of that war. The reason they arrive at this conclusion is as follows: With the growth of the cartel system, Germany's industrial might grew to be the most powerful in Europe and as a result the competition of German industry was felt in other European nations. This great competition offered by German industry was made possible by the utilization of cartels as organisms of state policy under the direction of the national government. The high tariff policy which had been enacted by

⁵Payson S. Wild, "Sanctions of International Commodity Agreements," American Journal of International Law, Vol. XXX (October 1936) p. 665.

the government to protect Germany's cartelized industries in the generation before the World Wars enabled the cartel system to flourish.

Rapid increase in productive capacity in Germany made it difficult to find sufficient domestic outlets for the goods produced. In order to maintain the increase in productive capacity Germany had to seek markets abroad, a task complicated by retaliatory tariff practices among other nations. This quest for markets abroad often turned from economic to political warfare, and sowed the seeds of German militarism which burgeoned into World War I. The great increase in Germany's industrial capacity was furthered by governmental policies which though greatly improving Germany's position as an industrial power, could not find a satisfactory method to distribute the fruits of its productivity without coming into conflict with other industrial powers abroad.⁶

This conflict of economic interests was said to be a prime factor in causing World War I to take place, the political incidents being just a facade for the economic rivalries. This conflict between Germany and the other

⁶A. J. Rosenstein, "How Cartels Broke the German Republic," Canadian Forum, Vol. XXIII, (March 1944) p. 279.

world powers being unavoidable under the cartel system.⁷

Close cooperation between cartels and the national government were revived in the period following World War I, and once again Germany was to use the cartel system to achieve nationalistic ends. In contrast to the period preceeding the first World War when the economic considerations of the cartel held their own against political policies, the period leading up to the second World War was characterized by the domination of political policies over economic considerations. No longer did this unholy alliance call for the development of a duality of interests of cartels and state power. Now the emphasis was placed upon the supremacy of the state, with its economic ally, the cartels, to be used solely as a means to achieve this end. In this period when a German corporation signed a cartel agreement, "the hand of the state guided the pen;" no German company was permitted to gain a commercial benefit at the expense of the interest of the state.⁸

This was the course of German cartel policy during the post-World War I period, and particularly during the reign of National Socialism. From 1920 to 1940 was the

⁷Ibid.

⁸Guenther Reimann, Patents for Hitler, p. 6.

great era of cartels, not only in Germany, but in the rest of the world as well. It was an era made to order for the German cartel experts; the old international ties were quickly mended after the war, built upon, and extended. This period of extreme rationalization of industry achieved its most complete form in Germany during the twenties and was followed by the rise of the Hitler regime.⁹

The theory motivating this great period of rationalization was the self-sufficiency of Germany, and the economic penetration of countries abroad for reasons of state. In the period beginning in 1927 and extending to 1939, German war preparations were said to be based on the theory of Karl Von Clausewitz, who had died a century earlier, which required the disarming of a prospective enemy in peacetime in order to achieve a lightening victory in war. This theory called for the coordination of two main policies; one was an increase of economic and military power at home, with a simultaneous reduction of the economic and military power of Germany's prospective victims. The cartel was the instrument used to achieve this policy, and Germany's cartel plans were laid

⁹"No Peace with I. G. Farben," loc. cit.

accordingly. The mistakes in the military and economic planning which led to defeat in World War I were to be rectified, and the plans of the Nazi government for aggrandizement were formulated so as to eliminate any loopholes.¹⁰

III. GERMANY'S INDUSTRIAL OFFENSIVE AND THE ILLUSORY SECURITY OF CARTELS

To counteract any blockade threat of her prosperous and powerful overseas rivals, as implied in the British and American navies, Germany organized her industrial offensive to subvert their economic power and pave the way for the lightning war which was to bring a German victory. The spearhead of this industrial offensive was the cartel, which along with patent domination were the elements which formed the vital organs of her war machine. This concentration of economic power in the hands of a few within Germany was to have baleful consequences upon the whole of Europe.

The cartel designs of Germany soon bore results, with the majority of European industries joining Germany

¹⁰ A. J. Rosenstein, "Cartels, Germany's Sixth Column," The Canadian Forum, Vol. XXIII (February 1944) p. 246.

in a great cartelization drive. Fear and desire were the emotions employed by Germany through the cartel mechanism to precipitate this cartelization of European industry, which meshed smoothly with the political plans of the state. A fear of German large-scale industry and desire to share its profits were the inducements for non-German companies to make numerous alliances with German industry. The terms dictated by Germany for industrial peace weakened the non-German industry, while strengthening the industrial war machine of the Reich.¹¹

The spurious security offered non-German industry in the cartel arrangements were continually revealed. Germany's productive capacity continued to grow, while non-German companies, complacent in the evanescent security these agreements offered, continued to restrict their own capacity and output, to limit their technical research, and to be generally indifferent to the development of new processes. This nebulous security was evident in many strategic commodities controlled by cartels and discussed in earlier chapters. Any apprehensions that non-German companies entertained as to the security of these agreements were allayed by the profits they reaped as a result

¹¹Francis Biddle, "Cartels, An Approach to the Problem, Vital Speeches, Vol. X (March 15, 1944) p. 339.

of the agreements. Non-German partners in these agreements were in many instances not unhappy over Germany's rearmament in the 1930's, since this increased their production and raised the prices of their products. As an example, in the steel industry the Belgians and French were anxious to remain in the steel cartel even after German rearmament began, so as to participate in the profits.¹²

Germany, through the use of the international cartel system, was able to achieve a victory in the esopolitical arena even before the first shot was fired in World War II. That its cartel plan was a success was evident in the nearly three years (1939 - 1942) of sustained and appalling disasters which beset the Allied Armies and Navies. When the Allied nations sought an answer to the then enigmatic problem of why German war production had been allowed to get so far in advance of Allied production, the theretofore obscure word, cartel, came into popular usage in the Allied nations.

The Kilgore Committee, which in 1944 conducted an investigation of the economic and political aspects of

¹²Henrich Kronstein, "European Cartels," The Commonweal, Vol. IIXI, (June 4, 1943) p. 172.

international cartels, elaborated upon the role played by German cartels in hampering Allied military preparedness, in addition to tracing their development. The following is an excerpt from its report:

"A defeated Germany emerged from the first world war with her imperialistic-minded industrial hierarchy intact Germany's industrial management secured loans from abroad which enabled them to consolidate into gigantic domestic and international monopolies They were bent upon recapturing their world position in dyestuffs, pharmaceuticals, military optical goods and other commodities German industrialists, backed by the government they had forced to do their bidding, threatened to invade the foreign markets, threatened to sell goods at lower prices, threatened to unleash new technologies, threatened to disrupt the controlled markets of other countries. They blackmailed their way into world markets Using commercial relations, in particular the cartel, as a weapon, they rearmed their own country and disarmed their prospective victims The alliance between Hitler and the German cartelists accelerated this quest for domination. The economies of other countries were penetrated by agreements among German, British, American, French and other concerns through which Germany built up a network which impaired the production of other nations, obtained sources of foreign exchange . . . gathered economic intelligence and spread Nazi propaganda.¹³

Earlier investigations by other Congressional bodies and the Temporary National Economic Committee had reached the same conclusions relative to the intent and effects of

¹³quoted in Colston E. Warne "International Cartels, A Menace to Peace," Current History, Vol. VIII, (February 1945) p. 112.

German cartel agreements abroad. Under the caption "Foreign Patent Controls over American Industry", the final report of a T. N. E. C. hearing in 1940 stated among other facts, the following:

"1. That foreign companies had taken out patents and entered into cartel agreements in the United States on essential war materials for the purpose of, and with the effect of, blocking American development and creating serious shortages . . .

2. There had been a division of world markets by patent agreements between domestic and foreign companies which gave foreign interests the right to determine where and how the American companies may sell certain military supplies . . .

3. It seems probable that vital military information has been disclosed to foreign companies through the requirement of itemized descriptive royalty payments in patent license agreements."¹⁴

IV. A SUMMARIZATION OF OPINIONS RELATIVE TO POLITICAL RAMIFICATIONS OF GERMAN CARTELS

The overall facts discovered by this writer in the course of research upon the intent and effects of Germany's cartel policy, seems to indicate that the program was one designed specifically to achieve the ends of the state, with economic considerations being incidental factors. Though some may claim, with nominal justification, that any

¹⁴Quoted in George E. Falk, Patents and Industrial Progress, p. 103.

discussion which involves Germany and its policies is subject to prejudices, due to that country's militant history in the twentieth century, the opinions of the great majority of observers seem to indict Germany's international cartel agreements as conspiracies to undermine the economic and political power of potential adversaries. Some of these observers concede that the original intent of the cartels may have been solely economic in character, but they state this intent was ephemeral, and the aims of the state soon became the raison d'etre of the system.

In the United States, the various reports issued by Congressional groups were outspoken in their condemnation of the pernicious influences of cartel agreements between American and German firms. Similarly the majority of American writers and students of cartels are in almost complete unanimity in their opinion that German-inspired agreements were a carefully calculated instrument of Germany's war lords, existing mainly to enhance the power of the state.

In England, with a fairly long history in cartel dealings and no antitrust legislation, opinion was divided on the question of the effects of Germany's cartels upon that country's war effort. In fact, the government has

tended to discount the charges as unsubstantial. Oliver Lyttleton, British Production Minister, stated before the British Parliament in 1945, that, "the free flow of scientific information in an industry is absolutely necessary. The finger of scorn has been pointed at these geographical arrangements (cartels) with regard to Germany, and I may say that there is no evidence whatsoever that any British firm has entered into an arrangement which restricted production of strategic materials."¹⁵

Despite statements such as this, the overwhelming weight of opinion on the subject, which the writer was able to discover, saw in Germany's overseas cartel arrangements an underlying purpose which was designed to weaken the industrial and military strength of nations. The indictment of the aims of German cartels was made in the main by American writers, who supplied the main sources of this writer's information. What prejudices they may have add but little to the severity of the charges which they so cogently presented.

¹⁵A. Wyn Williams, "Why Europe Prefers Cartels to Competition," Nations Business, XXXIII, (September 1945) p. 35.

CHAPTER IX

WARTIME OPERATIONS OF GERMANY'S CARTELS, AND POST-WAR DEVELOPMENTS UNDER ALLIED OCCUPATION

I. CARTELIZATION AND GERMAN OCCUPATION

The annexation of Austria and Czechoslovakia activated Germany's cartel mechanism which was geared to coordinate the industries of the annexed territories to those of the Reich. The aim of this cartelization policy was to create a strict relation of dependency of these East European industries to those of Germany. The concluding step in this compulsory cartelization plan was achieved on October 1, 1940, by incorporating the protectorate of Czechoslovakia into the customs territory of Germany. This customs territory had been created at an earlier date in Germany to consummate a plan for a complete rationalization of industry in order to facilitate production needed for a wartime economy. The method used to bring Czechoslovakia into this customs union was an extension of Germany's Compulsory Cartel Law of July 1938, to include this area of occupied territory.¹

¹Frank Munk, The Legacy of Nazism, p. 193.

This enforced cartelization which was in Germany's plan for a new organization of continental economy, was applied to Western European nations once they were under the suzerainty of Germany. The industries of these occupied countries were compelled to join an international cartel of their particular trade. Because of the predominance of German members in these cartels, all the decisions of the cartel were, in practice, made by the German majority. Technically speaking, however, this leadership of German interests in these European cartels was achieved by the greater production quotas of German industries, rather than by votes of cartel members.²

The iron and steel plants of Luxemburg, Lorraine, Belgium and Upper Silesia which prior to the outbreak of the war were affiliated in a private organization, the International Steel Cartel, were now required to join a German sponsored iron and steel cartel. This compulsory cartelization took place on June 30, 1941, and as a consequence the entire iron and steel production of continental Europe was controlled from offices in Berlin.³

²Ona Ringwood and Ernest S. Hediger, "German Cartels Invade Europe," Foreign Policy Reports, Vol. XVIII (August 15, 1942) p. 148

³Ibid.

This control by German or German dominated cartels was extended to include other essential materials such as cement and woodpulp. A new cement cartel was formed to replace the earlier international cement cartel which had been formed in Germany, but had collapsed due to the participation of the British and the Swedes. Under the new cartel, division of the European market among the various producers was determined by the cartel management in Germany. The same procedure was followed in respect to the woodpulp cartel: With the disintegration of the old international woodpulp cartel at the start of the war, a new European cartel under the hegemony of Germany was formed.⁴

In addition to the above commodities, German cartel control extended to other important products; these included synthetic textiles, fats and soaps, radio equipment, electrical goods, glass, and wood construction. The cartel agreements in these goods were intended to dovetail with Nazi economic plans to bring the direction of all European industrial activities under the authority of its central organization. To further buttress the position of the central organization, in respect to domestic and

⁴Philip C. Newman, "Key German Cartels Under the Nazi Regime", Quarterly Journal of Economics, Vol. LXII, (August 1946) p. 582.

foreign cartels, a decree issued on October 20, 1942, gave the Minister of National Economy the power of market control, and the right to dissolve or combine existing organizations and to regulate procedures.⁵

II. CARTEL AGREEMENTS AND THEIR CONTINUATION

DURING WORLD WAR II

Though many cartel agreements were terminated with the start of World War II, many others were continued due to the foresight of cartel management to plan for such exigencies. As a result of these far-sighted provisions in cartel contracts, many cartel agreements between German and foreign industries were merely suspended for the duration of hostilities, and were to be resumed following the war. This *modus vivendi* had the effect of giving German firms the right to resume their position of primacy in many world markets following the war.

The agreement between Standard Oil of New Jersey and I. G. Farben is a case in which the possibility of war was taken into account long before hostilities began. In his testimony before the Truman Committee in 1942,

⁵Between the Devil and the Deep," Business Week, Vol. DCCXXX, (August 28, 1943) p. 75.

W. S. Farish, president of Standard Oil of New Jersey, commented upon this provision, thus:

"Our contracts with I. G. Farben of 1929 were run until 1947. As you gentlemen doubtless know, contracts such as these are not in law abrogated, but merely suspended when the parties' nations are at war. The parties to such a contract must therefore find some way of getting along with their own business while the contracts are so suspended."⁶

In effect this agreement said that if there is any hindrance resulting from governmental action, in the United States, then at the conclusion of such interruptive action, the parties would conclude a new agreement in the spirit of the old.

The practical effect of this contingency provision in the Standard - I. G. contract was demonstrated in the transfer of 2000 I. G. patents to Standard Oil in 1939. This magnanimity on the part of I. G. Farben was especially noteworthy, since prior to this date, I. G. had tenaciously guarded its patent rights, and had given its cartel partner in the United States only a smattering of its patent knowledge. The motive which prompted this transference of patents was the perspicacity of I. G. Farben executives, in their suppositions that Germany might soon be at war with the United States. If this

⁶quoted in Gunter Reimann, Patents for Hitler, p. 80.

happened they knew the patents would be seized by the Alien Property Custodian, hence the reason for their largesse in respect to the patents. In addition, with the transfer of patents to the United States, I. G. was able to derive royalty payments for their use which would be collectable following the war.

The arrangements made for the patent transfer were concluded in the Hague, Netherlands, in 1939, before that country was invaded by Germany: The transaction that took place there was not made public, however, until late 1941 when the Department of Justice conducted an investigation of the agreement. Standard Oil later defended the transaction by stating that the Company was protecting its own share in the patent rights which might be in jeopardy if the Alien Property Custodian seized them and classed them in their entirety as enemy property.⁷

The inference of this patent transaction was that following the war these countries would want to cooperate once again, and resumption would be beneficial and expedient to the respective contracting parties as a result of these negotiations. This was indicated at the time of the transfer when a Standard Oil official wrote to his home

⁷Ibid.

office as follows: "They delivered to me assignments of some 2000 foreign patents and we did our best to work out complete plans for a modus vivendi which would operate through the term of the war, whether or not the United States came in."⁸

Similar provisions were included in numerous cartel agreements concluded by German and foreign companies. A second example which can be cited was in the Bausch and Lomb-Zeiss agreement, which was discussed in an earlier chapter. A paragraph in this cartel contract stated:

"... if, by reason of unforeseen political events, the execution of this contract shall be made impossible, temporarily or permanently, or the firm of Carl Zeiss limited in the enjoyment of its full license claim, this agreement shall be suspended for that time, and upon an appeal, the board of arbitors shall make such dispositions as seem necessary in order to carry out the will of the parties to this agreement under the changed conditions, if possible."⁹

The intent of such provisions as this was the retention of a foothold in the industries of foreign countries, regardless of political actions or the event of hostilities.

The Kilgore Committee reached this conclusion when it warned:

"The German industrial growth has been the mainstay of the international cartel system. In their agreements

⁸ quoted in Wendell Berge, Cartels, p. 27

⁹ U. S. vs. Bausch & Lomb Optical Company, et. al., Complaint and consent decree, July 8-9, 1940, quoted in Joseph Borkin and Charles A. Welsh, Germany's Master Plan, p. 312.

"with British and American companies the German cartelists specifically provided that in the event of war cartel arrangements would be resumed when hostilities were terminated. Any effort to retain the international cartel system will therefore help to keep in power the German militarist-industrialist clique which has planned and launched two world wars."¹⁰

III. AN INSTANCE OF CARTEL COOPERATION DURING WORLD WAR II

An anomalous situation which existed during World War II was the continuation of limited cooperation among certain cartel members located both within the United Nations and Axis countries. An example of this was the liaison maintained between cartel members dealing in electrical lamps and equipment. This cartel, which included Philips Gloelampenfabriken N. V. of Holland, Siemens of Germany, and General Electric in the United States, among others, communicated with and aided each other during the early years of World War II. The principal office of this cartel was located in Holland, which was also the home of Philips of Holland, one of the most powerful members of this combine. In 1942, on orders from the Nazi-controlled main office in Holland, the American trustees of the Philips

¹⁰quoted in "The Same Old Gang," Nation, Vol. CLIX, (November 25, 1944) p. 632.

combine aided a German cartel partner in fighting a patent suit in the Swedish Courts. During this same period these American trustees were reported to have exchanged technical information with their Axis opposites through what has been described as a "curiously overstaffed Argentine branch."¹¹

This example is cited by the writer to show that cartels can and do cooperate during periods of hostilities. Though such cooperation is the exception rather than a rule, examples such as the above seem to vindicate the contention of some that Germanys' international cartel connections were not totally severed during the periods of active fighting.

IV. THE DECARTELLIZATION LAWS IN THE POSTWAR PERIOD

Upon the defeat of Germany in World War II, the United States government established an organization to deal with the cartelized industries in its zone of occupation. A part of the Economics Division of the American Military Government was given the formal title of Decartellization Branch, American Military Government. When this

¹¹I. F. Stone, "Cartel Cancer," The Nation, Vol. CLVIII, (February 12, 1944) p. 179.

Decartelization Branch was formed in December 1945, under the command of Brigadier General William Draper, it was entrusted with the investigation, coordination, and reform of Germany's cartel system.

Cartels were also prominent in the news due to the War Crimes Commission hearings. In the course of these hearings numerous executives connected with such industrial enterprises as I. G. Farben, Krupp, and others were put on trial for complicity in the starting of the second World War. The courts that tried these men acquitted them of the crimes brought in the indictment, since the prosecution failed to prove that these industrialists plotted the war, or had any advance knowledge of Hitler's specific plans for military aggression. These men may have precipitated a sequence of events which led to war, but under the concept of law, as interpreted by American judges, only those responsible for the last event could be held guilty of a crime.¹²

While the trial of these industrialists was in progress, the Decartelization Section of the Military Government along with similar organizations in three other zones of occupation were attempting to reach an accord on

¹²James Stewart Martin, All Honorable Men, p. 228.

a uniform cartel law for German industry. Though there were concessions on the part of the four respective governments on various issues dealing with the cartel problem, unanimous agreement could not be reached. There were divergent opinions over procedures to be used in carrying out such cartel laws as enacted, whether the law should be mandatory or voluntary, and similar points of disagreement.

V. THE CARTEL LAW OF 1947

Agreement was finally reached between the United States and British representatives on the common text of the law which was to deal with cartel operations in the sector of Germany occupied by these nations. This law was promulgated on February 12, 1947, as Military Government Law No. 56 for the United States Zone, and a similar text was issued as Ordinance No. 78 for the British Zone. Included in the provisions of this law were those proscribing specific practices which were in restraint of trade in the manufacturing and consumer fields. Another section of the law provided for the investigation of all German firms which employed over 10,000 workers. If such investigation disclosed an excessive concentration of

economic power, they were to be reorganized and separated into functionable but autonomous economic units.¹³

This law and similar laws dealing with decartellization were to be the subjects of much disputation and oratory among those interested in the cartel issue in post-war Germany. Some held that the law was not vigorously enforced, some said the law was too ambiguous for effective enforcement, while others held that the power granted to the administering authorities was too arbitrary. In addition to these difficulties, the advent of the cold war in Europe further obfuscated the cartel issue.

One of the groups which had recommendations to make pertinent to Cartel Law No. 56 was that which was composed of fourteen top U. S. business executives who made a trip to Germany in May, 1947, on the invitation of the Secretary of War to study German industry and the United States' military government industrial program. The report of this group submitted to the War Department and released by that agency included numerous suggestions, among which was the following relating to decartelization:

"Decartelization: Law No. 56 and Regulation 1 embody a series of controls and regulations, many of which represent economic principals quite new to the

¹³Martin, op. cit., p. 228

"German mind and to the past industrial development of the country. Since we are now confronted with the urgent necessity of bringing about as rapidly as possible recovery of the economic life of a starving people - it is our belief that too strict adherence to the Law in its administration will seriously retard this primary objective.

"With no desire to criticize the principle of that law as it has been written - we do however, recommend, if at all possible, that the enforcement of these regulations be postponed, or at least substantially modified, until the industrial economy is in a reasonable state of operation."¹⁴

Other groups and individuals had dissenting opinions as to the worthiness of Law No. 56, and the disagreements were a source of consternation to both civilian and military officials concerned with cartels. As Time magazine so aptly put it, "Since the war's end many an important squack has been sounded against the U. S. Military Government for failing to do something about Germany's cartels - though hardly anyone knows what that something should be."¹⁵

VI. THE FERGUSON COMMITTEE REPORT ON GERMAN CARTELS

A civilian committee headed by Federal Trade Commissioner Garland Ferguson went to Germany in December of

¹⁴Quoted in ibid., p. 232.

¹⁵"Cartels on the Block," Time, Vol. LIII, (June 27, 1949) p. 83.

1948 and held hearings relative to the decartelization laws as well as investigating the effects of General Lucius Clay's orders of March 1948 which had the effect of rejecting several test cases which had been adjudicated under Law No. 56. General Clay was at this time the Military Governor of the United States Zone in Germany.¹⁶

In April 1949, the Ferguson Committee released its reports on its findings. This report stated that the basic policy of eliminating the cartels was sound, and went on to say that the policy should have been, and should be energetically enforced. The report praised Cartel Law No. 56 as a fair and indispensable regulation, and found no validity in the claim that the elimination of excessive concentration of economic power would inhibit German recovery. In its suggestions, it recommended the deconcentration of the plants of I. G. Farben, which it said had been a mainstay of the Nazi war machine.¹⁷

This committee also reported that the reason decartelization had reached an impasse was that the Army, desirous to build up German production machinery as an asset in the

¹⁶Martin, op. cit., p. 276

¹⁷Ibid.

cold war, had obstructed the program. A second reason cited by the committee for the bogged-down decartelization drive was that the British, in whose zone the iron and steel combines of the Rhur were located, were never enthusiastic about decartelization.¹⁸

General Clay was prompt in replying to the committee's charges that the Army had obstructed decartelization; contradicting the assertion, he continued to say that any further breakup of German enterprises "would be a political and not a security measure."¹⁹ The results of this great variance of opinion as to Cartel Law No. 56 was to stultify its use as a decartelization weapon from its outset.

VII. COAL, IRON AND STEEL DECARTELIZATION IN POSTWAR GERMANY

The military government in Germany in addition to the promulgation of Law No. 56, also put into effect in the American and British Zones, Law No. 75 which provided for the reorganization of Germany's coal, iron, and steel industries. The intent of this law, promulgated on

¹⁸Bruce Catton, "Decartelization - Our Last Chance," Nation, Vol. CLXX, (February 11, 1950) p. 122.

¹⁹Time, loc. cit.

November 10, 1948, was similar to Law No. 56, which is the elimination of excessive concentration of economic power, and the inhibition of the war potential of German industry.²⁰

This law enumerated various enterprises which had been deemed excessive concentration of economic power in the coal, iron, and steel industries, and those enumerated were to be dissolved. Numerous holding companies were to be liquidated. Among them were twelve steel combines which included such titans of the German steel industry as Krupp, Mannesmann, Thyssen and Hoesch. In addition to these steel combines, thirteen other operating coal combines were to be disbanded under the provisions of the law. Law No. 75 also provided for the formulation of a steel trustee association which was to consist of German nationals whose purpose was to assist in the decartelization and reorganization of the iron and steel industry. The members of this steel association were to be appointed by or under the authorization of military government officials after consultation with appropriate German groups.²¹

²⁰Martin, op. cit., p. 272.

²¹Ibid., p. 273.

By June, 1954, the job of splitting up these great prewar coal and steel combines was considered complete, at least that was the view expressed by observers in Washington, D. C.²² Whether complete decentralization was in actuality achieved by this date, was a question in point cited by some critics of the decentralization policies in Germany. These critics could cite the German stock boom in 1954, as a partial substantiation of their belief. Leading this rise in values were the stocks of the thirty-eight so-called "decartelized" iron, steel and coal companies, which had increased in value by 79% by the end of November. The expectations causing this prodigious rise was that the decartelization policies would soon be terminated, and that steel and coal companies would once again combine for yet more profitable expansion.²³

VIII. THE DISMEMBERMENT OF I. G. FARBEN

One of the first tasks to face the Military Government in Germany in the postwar period was the dissolution

²²"German Cartels Try a Comeback," Business Week, (March 13, 1954) p. 148.

²³"Behind the Headlines," The New Republic, Vol. CXXXII, (February 7, 1955) p. 3.

of the I. G. Farben combine. The dismemberment of this colossus of German industry, which had plants in all four zones under occupation, was put in the hands of a committee which was to study the organization of I. G.'s plants and make appropriate recommendations for dissolution. This committee was to survey plants to find out which plants or groups of plants could be operated economically as separate units. In addition to this, other studies conducted by this group considered the questions of I. G.'s patents and trademarks, its international and domestic cartel agreements, and its selling and accounting arrangements.

An agreement was then reached on an American proposal that in each zone, pending a final decision on establishing the new ownership of the separate units, the control officer in the different zones would designate a trustee for each unit and transfer the legal ownership of the properties from the Allied Control Council to this trustee. I. G. properties had up to this time been under the control of the Allied Control Council, which through a Control Council Law had formulated the law requiring the dissolution of I. G. Farben.²⁴

²⁴Martin, op. cit., p. 215.

Following the approval of this plan, and the transfer of property to the trustee designated by the control officers in each zone, General Clay was able to announce in 1949, that the I. G. Farben empire had ceased to exist. This pronouncement by General Clay was questioned by some critics who claimed that the breakup of I. G. was true only on paper. They held that though Farben had been split into a number of independent companies, each under a German trustee who was responsible to A. M. G., all but one of these trustees were old Farben officials. Hence, these critics claimed, the actual structure of ownership was unaltered.²⁵

Various plans were considered as to the final disposition of I. G. Farben's holdings. One plan proposed would have fragmented I. G.'s holdings into eighty separate units, but this, along with other plans, was abandoned as unfunctionable or too extreme. In 1954, plans were completed under which I. G. would emerge as six separate chemical companies; some of these companies already formed were already in competition with each other.²⁶

²⁵Ibid.

²⁶Business Week, loc. cit.

CHAPTER X

RETROSPECT AND PROSPECT -

CARTELS, A LOOK AT THE PRESENT AND FUTURE

I. INTERNATIONAL CARTELS - THE PROBLEM

Germany's path of leadership in the cartel field, and how the exercise of that leadership had repercussions upon the economic and political institutions abroad has been traced in previous chapters. Now the time has arrived when we must evaluate this movement in order to guide or to deal effectively with any new developments in the cartel field in the future. That these international business agreements still operate over a wide area of the world today is a certainty. The United States State Department, for example, has evidence that over twenty major international cartels are flourishing today outside the United States. At the present time, a group of British, German, Swiss, Danish and French pharmaceutical firms are said to have secured the European market for a wide range of basic products.¹

¹"U. N. Strikes at Cartels," Business Week, (May 16, 1953) p. 158.

Though at the present time, there has been no evidence of German regnancy over these cartels, will history repeat itself, and see the recrudesence of Germany's leadership in future cartels? Will this leadership once again ally itself with the nationalistic elements in Germany and pose a threat to world peace and economic stability in the future? These are the questions which must be studied and carefully analyzed so as to prevent a repetition of events that followed the first World War. It is true, we are presently living in a different milieu in which the threat of Communism is the main concern of the Western world, but this does not prevent the renaisance of a new menace which the world may have to face in the future. Since the supremacy of cartels may return at any time in the future, an understanding of the cartel organization and its practices is essential, as is the methods to regulate the actions of these international accords. The previous chapters, the writer hopes, have given an insight into cartel operations. What is left to do now is to examine international cartels, as they exist today, and then attempt to visualize Germany's role in the cartels in the future.

II. INTERNATIONAL CARTELS, A RETROSPECT OF THOUGHT

The problem of curbing cartels is one of the greatest international problems which must be faced in the near future.² This statement made by the late President Roosevelt in 1944 may appear a bit too stringent to apply to cartels, but some regulation would seem warranted by past events. This question of cartel regulation has been a vehemently debated issue among economists, businessmen, and government leaders for the last generation. Opinion on the subject is divided into two main divergent schools of thought. These may be called the European school and the American school. The European school sees in cartels, per se, an efficient and sensible method of organization, while the American school, imbued with over two generations of antitrust legislation and investigation, sees cartels as a pernicious influence upon economic processes, as well as a potential weapon of economic totalitarianism. What is the reason for this wide variance of opinion between European and American students of cartel practices? An examination of background and thought will make the point clear.

²"Monopoly," Time, Vol. XLIV (September 25, 1944) p. 86.

III. EUROPEAN VIEW ON CARTELS

The majority of European students of cartels desired the continuance of international cartels in the postwar period, though they may grudgingly concede that some supervision or regulation would be in order to prevent the repetition of the abuses of the past. The thought of eliminating cartels in their entirety is one which never enters the minds of European business and government leaders. To the European mind, cartels represent a form of stability, and the thought of going back to a state of unfettered competition is abhorrent to the European industrialists. Cartels have so permeated the European system of international trading, that it is difficult to see how they can be eliminated without economic chaos.³

Cartels and other forms of monopoly organization have been seen as a stabilizing factor in the economy of Europe since the beginning of the twentieth century. In the pre-World War I period, the stability of German economic life was said to be due to the cartels which were working toward a stable price situation. That they created problems

³A. Wyn Williams, "Why Europe Prefers Cartels to Competition," Nation's Business, Vol. XXXIII (September 1945) p. 35.

which were to contribute to the starting of that war was overlooked. That cartels are conducive to price stability is the main claim given for their existence, and the measure of their success in this important aspect, according to one writer, should be the gauge of their justification.⁴ It is this effort of cartels to stabilize prices, in order to eliminate ruinous competition and provide for orderly marketing, that is usually considered the most favorable influence that the cartel has exerted on the general economic scene. Critics of this position are quick to point out, however, that economic stability must be sought within a broader social framework, otherwise stability achieved in one industry will inevitably be gained at the expense of another.⁵

The international cartel is considered by the leaders of European thought, both political and industrial, as one of the outstanding mechanisms in the economic rehabilitation of the old world. The great technological advancements in the twentieth century, they believe, are to a great extent due to these cartel arrangements. Because of this business

⁴H. C. Trench, "The Case for Cartels," Fortnightly Review, Vol. CXXVII, (March 1930) p. 361.

⁵"Role of Cartels in Modern Economy," Foreign Policy Reports, Vol. XX, (October 15, 1944) p. 184.

philosophy in European trade relations, when overproduction threatens, no attempt is made to lower price, no effort is made to push sales; instead prices are stabilized and the market allocated by cartel arrangements. To European eyes, a cartel is not a "trust". They think of a "trust" as an agency which tries to suppress competition, while a cartel is only a device to regulate competition. The "trust" tries to liquidate rivals; the cartel preserves them by promoting greater stability so as to assure reasonable profits and protect the capital investments in both large and small enterprises.

This feeling of stability through cartel arrangements has been the thought of European business leaders in the past, as it is today. This is the reason why the strongest advocates of postwar cartels during World War II, among the non-Axis nations were the British, whose view received the support of Sweden, Czechoslovakia, Holland and Norway.⁶

IV. THE UNITED STATES VIEW ON CARTELS

The United States was the only important nation that was opposed to cartels in the postwar period, but because

⁶"Alternative to Cartels," The Commonwealth, Vol. XII, (December 1, 1944) p. 164.

of economic and political vicissitudes in the postwar period, it might relent somewhat in its resolves. An economic and political background which was quite divergent from that of Europe has shaped American opinion on the question of cartels, or any similar form of monopoly organization. Unlike Europe, the United States was less dependent and not as sensitive to extraterritorial economic considerations. While European industry had reached a stagnation phase in its growth, the economic frontier of the United States was still in a great expansive state. European industrialists cooperating in economic intercourse in the form of cartels to overcome the lethargy of their industries, while American businessmen remained largely aloof from this international cooperation, concentrating their attention on domestic cooperation, where possible to circumvent the anti-trust laws.

While European industrial leaders justify the controlling of prices, allocation of territories, and other cartel tactics as indispensable to economic stability and health, the great majority of their American counterparts see these practices as inimical influences upon the economic institutions of the nation. In addition to this, revelations during World War II relating to the influence of cartels upon the war effort and the political powers they

exerted, have further served to denigrate cartels in the eyes of American observers.

This in essence explains the reasons for the basic points of conflict of thought between European and American thinkers on the cartel issue. To the European mind, cartels have no direct political effects. Those which have arisen in the past have been incidental to them, not inherent in their makeup. The American thinker sees in them a nucleus which provides not only for a method of harmful concentration of economic power, but also a cudgel for political power and militaristic aspirations.

Cartels have divided Latin America and other areas of the world among themselves. These international penetrations tend to cause governments to consider certain areas of the world as "fields of interest" and certain other parts as territories outside their sphere of interests. Cartels make use of governments to further their interests, or as in the case of Germany, cartels can be used as an instrument of national policy. The relationship is a very close one. Whenever one of the cartels broke down, a warlike situation arose between the private monopoly groups involved with the result that governments found themselves involved in the dispute.⁷

⁷ Henrich Kronstein, "European Cartels," The Commonwealth, Vol. XXXVIII, (June 4, 1943) p. 172.

That cartel relationships tend to transcend the economic and become political is perhaps the greatest indictment of the cartel system. The political elements have in the past, particularly in Germany, used the economic arm of the private industries to serve the needs and ambitions of the state. Even in democratic states, corporations which are cartel members can influence decisions of state because of their power which in many instances is derived from their participation in these cartels. That cartels again could be used to serve the militant aims of a state is a possibility which few would question.

V. OUTLOOK OF GERMAN CARTELS TODAY

What of Germany today? Here in the fatherland of cartels what does the future hold for this method of business organization? No definitive answer can be given to this question, but a fair prediction would be for their continued existence for many years to come in the German economic structure. Despite reform of industry and decarteli-zation imposed by the Allied Powers following the war, cartels are still a part of the industrial structure of Germany today. Whether time will see an amalgamation of industry and government in a quest for territories and markets is a question which cannot be

answered, but that within the cartel structure there is the fertility for the growth of such an association has been tragically demonstrated in the past cartel history of Germany.

As early as 1947, an Economist, John K. Gailbreath, made the ominous statement that "German cartels and combines could again, with a little rejuvenation, assume their former position of power."⁸ Though the power of Germany's cartels today is not nearly what it was under the Nazi's, this does not detract from the German businessman's fondness for cartels. The greatest deterrent to cartels in West Germany today has been the unprecedented and steadily rising prosperity which has taken place in Germany since the end of the war. Contrast this present situation with the chaos which plagued the German economy for many years following the first World War. The continual presence of unemployment which hovered over the German economy, and later over all the capitalist world, proved highly conducive to cartel development. These depressed times following the first World War caused businessmen to seek stability by agreements not to cut prices, but to

⁸John K. Gailbreath, "Is There a German Policy," Fortune, Vol. XXXI, (January 1947) p. 195.

divide the available markets on a profitable basis. Because of the prosperity in West Germany today, there is little unused productive capacity with the result that cartel control of industry has been greatly diminished, though not eliminated.

By late 1953, many of the old powerful trade associations were functioning again, their associations being a form of domestic monopoly. With them came the means for recartelization, calling again for such tactics as price fixing, production and sales quotas. One of these associations which can be cited as an example of this movement was the Aero Union, which was formed by Germany's five existing aircraft manufacturers, Heinkel, Focke-Wulfe, Daimler Bens, Messerschmitt and Dornier. This group with candor announced their intention to eliminate competition, allocate contracts, and generally carve up the market.⁹

Unable to completely extirpate such an old institution as the cartel, the West German government, through its able Economics Minister, Ludwig Erhard, has sought to eliminate the more noxious parts of the cartel. When Erhard has been unable to do this he has been forced to

⁹"Behind the Headlines," New Republic, Vol. CXXI, (October 25, 1954) p. 5.

compromise with the cartel adherents. Minister Erhard, a Classical Economist, has stated that there is no room in classic economics for either a trade or shooting war as an instrument of national policy. Market economics, he states, is by definition true international economics, and West Germany is adopting market economics as a national philosophy.¹⁰

With this adoption of market economics as a national philosophy, Erhard tried a great reform, the outlawing of cartels, thus putting the German economy on a purely competitive basis, but in this endeavor he has been forced to compromise. He has already compromised with pro-cartel businessmen to the extent of agreeing that cartels should be allowed under the following three conditions:

- (a) "Export Cartels" would be permitted in order to expand German sales abroad.
- (b) Cartels would be permitted at home to make it easier for certain branches of industry to modernize their production facilities.
- (c) "Crisis Cartels" would be allowed should industries find themselves faced with a serious slump in sales.¹¹

¹⁰ Gilbert Burck, "The German Business Mind," Fortune, Vol. XLIX (May 1954) p. 111.

¹¹ "German Cartels try a Comeback," Business Week, (March 13, 1954) p. 149.

Compromises such as this make clear the fact that cartels will never be completely eliminated in Germany, despite the pronouncements of some who fail to grasp the underlying implications in such concessions. It is the opinion of some American observers in Germany that by one method or another the majority of German industry will emerge in a cartelized form within a few years at most. The fact is that German industry wants cartels and the government is not prepared to risk a real showdown fight on the issue. So even if the present anti-cartel laws have a veneer which suggests resemblance to U. S. anti-trust laws, their effectiveness was ably described recently by a German businessman who said: "Why do we need cartels legalized when all we need is a telephone to make our own arrangements." ¹²

This briefly is the situation in Germany today in respect to cartels. Some may wonder what happened to those stentorian voices which just a decade ago were raised against the evils of cartels in general and of German cartels in particular. Those like Henry Morgenthau whose plan was to make the German economy entirely agrarian, and former Attorney General Francis Biddle who envisioned in

¹²Ibid.

his program the maintenance of peace through postwar control over German commercial and industrial enterprise. The rise of a new threat, represented by Soviet Russia, following the war, was the main factor in softening these voices in the wilderness of present day tensions. German industry is no longer a potential enemy, but is viewed as an ally in any future conflict with the colossus of the East.

The program of cartel-busting, once the avowed aim of many American leaders, would probably have been just as abject, even without the threat of Russia in the postwar period. With the countenance of many European nations, who view cartel agreements with little disfavor, the program was no doubt doomed to failure from the outset. Foreign governments just would not cooperate with the United States in any concerted program against the cartels.¹³

Even the once adamant attitude of American public opinion has shown a remarkable resiliency in respect to cartels of late. The word cartel, which to the American had once conjured up visions of clandestine German aggressive plots, now has at least won a measure of tolerable acceptance. An editorial which appeared in the

¹³"The United States and World Cartels," Business Week, (May 29, 1948) p. 116.

Saturday Evening Post in late 1954, is an indication of the new prospective by which Americans view cartels. It stated:

"The rise of Soviet power has for the time being, at least, put aside our synthetic concern about cartels in Germany. To get the required German divisions we were willing to forget the whole thing and admit that the dream, by Morgenthau, out of Harry Dexter White, of a Germany rendered helpless against Soviet aggression was strictly for the Red birds. There are evils in cartels which Economics Minister Erhard has courageously attempted to destroy. Hitler was able to use German industry as formally organized to his advantage. Possibly a new leader of equally formidable characteristics might produce a new peril It is praiseworthy only for the Du Ponts, Remington Arms, Schneider-Crusots, Vickers and Armstrongs and Imperial Chemical Industries to manufacture weapons, chemicals and explosives. The Devil's Chemists are at work when German savants take to chemical science."¹⁴

This view represents a change of opinion of cartels expressed by American organs of public opinion in the past. The hope is that this view is not apostate in respect to American thought on cartels, but merely a temporary expedient to meet the needs of the present time. That the possibility of a new Hitler arising and producing a new peril is recognized, is encouraging to those, such as the writer, who see in cartel arrangements an intrinsic and perpetual predilection toward abuse and misuse.

¹⁴"Weaning the Germans from "Cartels" has been an Unprofitable Project", Saturday Evening Post, Vol. CCXXVII, (November 20, 1954) p. 12.

The problem of curbing cartels and making them innocuous in respect to their potential as instruments of national policy, as well as impediments to economic expansion has not been solved, and will not be solved until there is unanimity among the various nations as to their injurious effects. If complete elimination cannot be achieved, and this appears to be the case, some sort of regulation should be an indispensable aim of government.

This regulation could possibly provide for a registration and review of cartel policies as suggested by one writer on the subject. Under this proposed plan, a law would be put into effect which would require the national registration of cartel agreements. In addition to this a periodic review of the agreements; in which the government would consider the effect of every agreement upon the military security, foreign policy, and upon the volume of international trade. Since it appears that cartels will be with us for quite some time in the future, regulation such as this is needed at the present time.¹⁵

¹⁵Milo Perkins, "Cartels, What Shall We do about Them," Harpers, Vol. CXIC, (November 1944) p. 576.

No doubt incentives toward cartels would diminish were world commerce to proceed in full volume and in proper balance. Unfortunately, however, there is no immediate or long-run expectation of this, so there must be some toleration of the system no matter how distasteful to those who see in the system restriction of trade, reduction of production and employment, higher prices, lower standards of living and a threat to democratic institutions. It must be remembered that there are many who just as sincerely believe that the free enterprise and profit system can only be saved by collective economic security under a system of cartels. A compromise of these viewpoints by the acceptance of some sort of regulation seems to offer the best solution to the problem.

Cartels could conceivably play a constructive role in the future. It would be necessary for them to follow an expansionist philosophy rather than one based on restriction, if they were to have a truly ameliorating affect upon the economic well-being of the world. It is a certainty that we have not found a system to eliminate them, let us hope we can find a system to improve and regulate them.

CHAPTER XI

SUMMARY AND CONCLUSIONS

The cartel organization we speak of today grew out of the mercantile protectionism of the 16th and 17th century. Various forms of cartels had their antecedents many hundreds of years prior to this date, but the modern cartel organization took form during this period, as did the modern nation state.

The development and growth of cartels in Germany came shortly after that nation's unification in 1870. An expansive industrial program during this period, which could not be maintained, led German businessmen to turn to cooperation to achieve a measure of stability in their productive and marketing processes. This cooperation was achieved through the use of cartel agreements. The growth of cartels was furthered and aided during this time by the system of protective tariffs instituted by many leading nations to protect their home industries.

The attitude of German courts toward cartel agreements aided their growth during their early development by justifying their existence as necessary deterrents to economic instability and as organizations necessary to the well-being of the whole social community. Given such encouragement this method of business cooperation became

an integral part of German business philosophy, which has persisted to the present day.

At the beginning the interests of government in these cartel organizations were motivated by economic considerations, but gradually the government began to view them as potential tools to further the political ambitions of the state. This reevaluation of cartels by the state came with the extension of certain domestic cartels into international cartels. The combined economic -- political character of cartels was solidified with the advent of the Nazi government which exploited cartel agreements to serve the ambition of the state.

The results of this fusion of aims was manifested during the first few years of the second World War when a shortage of strategic materials faced the United Nations who were aligned against Germany, the great promoter of international cartels. Many commodities vital to the arsenals of the United Nations were in short-supply, and the production of these commodities, the United Nations discovered had been affected by cartel agreements in which Germany had been a conspicuous member. Commodities such as aluminum, magnesium, tungsten carbide, and synthetic rubber, among others, were in short-supply.

The leading German Company in these international cartel agreements was I. G. Farbenindustrie, one of the worlds largest chemical concerns, whose cartel agreements

reached the industries of every major nation in the world. The list of commodities affected by this company's cartel agreements included many considered vital to a nation's well-being, both industrial and social. Products such as pharmaceuticals, magnesium, synthetic rubber, aluminum and gasoline were all included, directly or indirectly, under cartel agreements in which I. G. Farben was a leading, if not the dominant member. The relative material unpreparedness of the United Nations in the first few years of World War II can be in considerable measure attributed to I. G.'s cartel arrangements.

The foresight of I. G. Farben's directors is evident when considering various provisions of I. G.'s cartel agreements with foreign companies. The eventuality of war was taken into consideration and provisions for the continuance of royalty payments on patents and protection for I. G.'s foreign interests during periods of hostilities were included in cartel agreements. These provisions aided both dollar-wise and propaganda-wise in South America during the early years of the second World War.

In addition to I. G. Farben, numerous other German companies participated in cartel agreements which affected the production of strategic goods. The Krupp Company of Essen, and Carl Zeiss and Sons of Jena, were two firms whose cartel agreements with American firms retarded this country's war-time industrial expansion. Krupp's agreement

with General Electric affected the production and utilization of tungsten carbide, needed for the making of fine cutting edges for machine tools, and delayed the retooling of American plants at the start of the second World War.

The fourth most serious shortage facing the United States in World War II was the shortage of military optical equipment. This shortage of optical glass for use in binoculars, rangefinders, and bombsights was attributed in large part to the cartel agreement between Zeiss and the Bausch and Lomb Company in the United States. The nature of the agreement between the two firms made this country's supply of optical glass almost entirely dependent upon Germany. An exchange of information provisions of the agreement, relative to the development of military optical equipment in the United States, was valuable to Germany, since she was kept informed of any new developments by the United States involving the use of military optical glass.

With Germany's defeat and subsequent Allied occupation, a decartelization movement was started in Germany. The Allied powers promulgated several anti-cartel laws, and disbanded the great industrial combines of I. G. Farben and Krupp. The effectiveness of this decartelization program has been questioned by some observers, and many claim the program is a failure. It is the opinion of some, including

the writer, that cartels in Germany are there to stay, at least in the foreseeable future. The differences of opinion between Europeans and Americans on the merits of cartels, and the threat of Communism killed any chances of extirpating the cartel system in Germany.

Since cartels are here to stay let us hope they will be regulated and closely observed by the nations of the world. Open covenants in future cartel agreements are necessary to prevent misuse and abuse of the cartel system. Continual vigilance is incumbent upon us lest our children suffer from our present and past compromises with the system. It is the writer's opinion that the disclosure of the past fifteen years has focused a new light and interest on cartel operations, let us maintain this interest in the future, since apathy today may very well result in world tragedy tomorrow.

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APPENDIX

The components of I. G. Farbenindustrie A. G. and its subsidiaries are included in the following listings. The list is not complete, since some corporate identities have been maintained, but the list was the most satisfactory compilation available in 1941.

1. Bodische Anilin und Sodafabrik
2. Ammoniakwerke Merseburg-Oppau, G. m. b. H.
3. Farbefabriken vorm. Friedr. Bayer und Co.
4. Farbwerke vorm. Meister Lucius und Bruening
5. Leopold Cassela und Co.
6. Chemische Fabrik Griesheim-Elektron
7. Akt. - Ges. fuer Anilin - fabrikaten
8. Chemische Fabriken vorm. Weiler-ter-meer
9. Kalle Und Co.
10. Koehn - Rottweil A.-G.
11. Dynamit A.-G. vorm. Nobel
12. Rheinische-Westfallische Springstoff A. - G.
13. Wuelfing, Dahl und Co. A. - G.
14. Karl Jaeger, G. m. b. H.
15. Rheinische Stahlwerke
16. Ampere, G. m. b. H.
17. Riebeckische Montanwerke A. - G.
18. Philona A. - G.
19. Jacob's Mine at Preussisch Boernecke
20. Hermine Mine
21. Dehler

22. Stickstoff-Kredit G. m. b. H.
23. Koliner Kunstduenger und Chemische Fabrik
24. A. G. fuer Landeskulter
25. Chemikalien-Werke Griesheim G. m. b. H.
26. Zuckerfabrik Koerbisdorf
27. A. G. fuer Stickstoffduenger Knapsack
28. Elekto-Nitrum A. - G.
29. Soc. Electroquimico de Flix
30. Teer-farben-Industrie A. - G.
31. Alexander Waack A. - G.
32. Aluminum - Werke G. m. b. H.
33. Elektrochemische - Werke A. - G.
34. Elektrochemische Werke - G. m. b. H.
35. Chemische Werke Lothruger
36. Auguste Viktoria Mine
37. Chemische Werke Durand und Huguenin H. - G.
38. Delvendahl und Kuentzel G. m. b. H.
39. Wolff-Werke Chemische Fabriken
40. Chemische Werke Schuster und Wilhelmy A. - G.
41. Erdoel und Kohleverwertungs A. - G.
42. Dinsberger Kupferhuette A. - G.
43. Deutsche Molybdoenwerke
44. Bergen Kohle A. - G.
45. Deutsche Edelsteingesellschaft vorm. Herm. Wild A. - G.
46. Frecheu Lignite Mine

47. Chemische Fabriken und Asphaltwerke A. - G.
48. Theodor I. and II Mines at Bitterfeld
49. Doerstewitz-Rottmannsdorfer Braunkohlen-industrie A. - G.
50. Geilverkschaft Elise II
51. Deutsche Gniba A. - G.
52. Maria and Antonia Mines
53. Deutsche Braunkohlengesellschaft A. - G.
54. Deutsche Gasolin A. - G.
55. Oles Mineraloelwerke A. - G.
56. Sueddeutsche Oel and Melanolwerke G. m. b. H.
57. Ford Motor Company A. - G. (part)
58. Metallgesellschaft (part)
59. Textilosewerke und Kunstweberei Clovies A. - G.
60. Griesheimer Autogen - Verkaufsgesellschaft m. b. H.
61. Deutsche Oxydrii A. - G.
62. Gesellschaft fuer Lindes Eismaschinen A. - G.
63. Karl Heuhaus G. m. b. H.
64. Vertwallungs A. - G.
65. Hoelkenseide G. m. b. H.
66. China-Export, Import-und Bank Compagnie
67. Productos Quimicos Meister Lucius Brueuning, S. - A.
68. Oestische Handelsgesellschaft and Bayer Products, Ltd.
69. Kalk-und Emailierwerke Gibr. Wandeloben, m. g. H.
70. Pulverfabrik Skodawerke-Wetzler A. G.
71. Wackelberg Group of brown coal mines in West Germany.
72. A. H. Rietschel G. m. b. H.

73. Heggener Kalkwerke G. m. b. H.
74. Gustav Genschow Co., A. G.
75. Krimer-Kloergesellschaft m. b. H.
76. Deutsche Laenderbank A. G.
77. Riebeck'sche Montanwerke
78. Chemische - Werke Aussig-Falkenau G. m. b. H.
79. Koerblisdorf sugar factory's brown coal mine
80. Deutsche Cellulose-Fabrik, A. G.
81. Dr. Albert Wocker G. m. b. H.
82. Chemische Werke Lothringer G. m. b. H.
83. Hydrierwerke Politz A. G.
84. Aceta artificial silk factory
85. Ch. W. Huls, G. m. b. H.
86. Buna-Werke G. m. b. H.
87. Internationale Gesellschaft für Chemische Untersuchungen.
88. Sachtleben A. - G.
89. Behring-Werke A. - G.
90. Leuna-Werke Ammoniak-Werke merseburg
91. Braunkohle-Benzin A. - G.
92. Norsk Hydro-Elektrisk Kvaestof A. - G.
93. Titangesellschaft m. b. H.
94. General Aniline and Film Company
95. Agfa-Ansco Corporation
96. General Aniline Works

97. A. G. für Chemische Industrie, Gelsenkirchen-Schalke
98. Aziende Calori Nazionali Affini (A. C. N. A.), S. A.
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With similar reservations as to completeness, the following list of fields of products of I. G. Farben is given:

Coal tar dyestuffs

Innumerable organic and inorganic chemicals

Solvents, such as those for paints, lacquers, varnishes, accelerators and anti-oxidents

Preservatives

Tanning agents

Mineral colors

Synthetic building materials

Compressed and rare gases

Light and heavy metals, including aluminum, magnesium and the rare and previous metals

Machinery and equipment used in chemical industry

Pharmaceuticals

Synthetic gems

Synthetic perfumes

Insecticides and fungicides

Photographic production and equipment

Cell wood

Rayon

Celluloid

Plastics

Synthetic gasolines

Synthetic rubber

Explosives

Nitrates and fertilizers

Vistra (synthetic textiles)¹

¹Reproduced from Joseph Borkin and Charles A. Welsh's book, Germany's Master Plan.