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GERMANY'S COMMERCIAL GRIP ON THE WORLD

HER BUSINESS METHODS EXPLAINED

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HER BUSINESS METHODS EXPLAINED

BY

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TRANSLATOR'S PREFACE

GERMANY'S grip on the world! How she won this hold, how she was to a certain extent compelled to become the champion dumper, for reasons largely historical and psychological, is explained in the pages that follow; but Prof. Hauser, even in the third edition which has recently been issued to the French public, thinks it wiser to analyse these reasons rather than to suggest a universal remedy.

There is no such panacea. It is impossible to believe that all the resolutions of Paris Conferences and their like will rob the Germans of their work-energy and scientific organisation. Without similar attributes in a nation, all the State aid in the world will not make the economic restraint of Germany a business proposition.

Not that the value of State assistance should be minimised. Subsidies, credit facilities, tariffs and freight legislation are some of the chief weapons by which invaluable assistance may be afforded to industry; but they are one and all unfortunately only supplementary to remedies which rest and will rest, as they always have rested, in the hands of the manufacturers and workers in each country.

This book, then, is a diagnosis of the causes of the German world canker, rather than a prescription, and the success of the cure depends on the correct appreciation of the diagnosis and on the adoption of remedies which must inevitably be suggested by this proper appreciation.

The diagnosis, in its analytical detail, thus constitutes a serious warning, not only to France, for

whom it was chiefly written, not only for the Allies who are at one with her in this titanic struggle, but for each and every one of the civilised countries of the world into which Germany has penetrated, by methods fair or foul, for her own ends.

> It is a warning not only of the wholesale dumping with which Germany hopes on the morrow of peace to complete the economic conquest of the world, but of the *power to dump* which Germany will retain, under ordinary circumstances, whether she is victor or vanquished.

Low cost of production is, of course, the foundation of dumping, and this can only result from extreme productivity. In the case of Germany, cheap manufacture is the natural sequence of the skilful combination of science and commerce. The value of organised industry must be realised by all who read and digest, but there is a great deal that must not be imitated.

Dumping on the German scale has its dangers, not only to the "dumpee" but to the dumper. Production of the necessary magnitude is, generally speaking, effected by the process of standardisation, and this leads inevitably to scientific over-production in anticipation of possible future demands, which naturally recoils every now and again on the head of the super-producer.

Germany has repeatedly overcome crises of this kind. But in the years before the war the situation became alarmingly acute, and the German Imperial Government considered that it would be quicker and cheaper to attempt to gain its *economic ends by victory on the field of battle,* than to find markets for the surplus production by varied methods of "peaceful penetration."

> This was the true "casus belli." No nation should therefore adopt in their entirety methods of systematic over-production fraught with so much danger to itself and to the peace of the world.

The nature of the cure for German dumping must naturally vary according to geographical and historical conditions, but in every instance it lies in the hands of the dumpee invalids, employers and employees. As far as Great Britain is concerned Labour must discard its restrictions on human and mechanical output. It has done so during the war; it must continue to do so in the trade war of the future.

And what about the employers of labour—the English manufacturers who suffer and complain, but take no steps to obtain a remedy?

They are the people who have most to benefit from Germany's example. They must learn to acquire the German spirit of *association;* they must realise that a closer union of manufacturers in each and every industry is the essential factor of successful enterprise; they must learn to "manufacture imperially," with their energies bent on the future of the Empire, leading thus, through the greatness of the Empire's place in the trade sun, to their own success.

On that day when masters and men work "imperially" and not individually, in that very hour Great Britain will have an industry and a commerce that will have nothing to fear from the menace of Germany.

M. E.

LONDON,
October, 1916.

PREFACE TO THE FIRST FRENCH EDITION

It has appeared to the author of this work that it was necessary to do it quickly. At this hour every book is an act, and we cannot wait, for we know too little what services "la Patrie" will demand of each of us to-morrow.

Whatever may appear hasty or incomplete in the pages which follow may therefore be excused. We have been compelled to measure by weeks tasks which in calmer times would have demanded months. Perhaps at a later date we may be enabled to take up this work again and to perfect the details in the outline previously traced.

Such as it is, we should not have been able to write this book had we not found co-operation of the most obliging and valuable kind. May we be permitted here to thank M. Lacroix, director of the secretariat of the Paris Chamber of Commerce; the Dijon Chamber of Commerce; Messrs. M. Smith of the British Chamber of Commerce; Outland of the American Chamber; Allard and Rau of the Belgian Chamber; Giraud and Hoschiller of the Franco-Russian Chamber; the Italian Chamber; Knoblauch of the Spanish Chamber; Otto Bemberg of the Argentine Chamber; Bégis and Sauvaire of the French Chamber of Commerce at Geneva; Pascal d'Aix, Consul-General of France at Geneva; the general secretary of the Comité des Forges (M. Pinot), and of the Shipowners' Committee (M. Paul de Rousiers), and finally financiers, manufacturers, and friends who have kindly furnished us with their information and advice.

Dijon,
November, 1915.

PREFACE TO THE THIRD FRENCH EDITION

THE reception accorded to this volume by the public—by the great public as well as by the special public of economists, merchants, and manufacturers—brings the author face to face with a somewhat delicate problem.

When this book first appeared it had no other pretension than to mark a date, to describe a state of affairs existent at a determined moment—at the conclusion of the first year of war—and to explain that state of affairs. Was it advisable in this new edition to limit ourselves to the same point of its duration, or was it necessary to bring the book "up to date"?

Had we chosen the latter course it would have been necessary to record all the experiments which have been made during the last few months to guard against the very dangers, to remedy the evils, which this work exposed.

Certain of these experiments are without doubt very interesting—the creation of numerous leagues, the success of the Lyons fair, attempts to implant or develop in France industries of which Germany had reserved the monopoly. It would also be necessary to record a somewhat new orientation of the political economy of the French public authorities, and the efforts which have been made to establish between the Allies that solidarity which we have considered, in our conclusion, an imperative necessity.

From another point of view, one would have to study—for a rigorous bringing up to date—what has happened in Germany since November 1915, with the

object of perfecting the economic mechanism, of accelerating its movement and of improving its yield, with the object of resisting the pressure exercised by the Allies, and of preparing for the after-war. Germany, conscious of the defeat which awaits her alike in the political and military arena, reckons on taking her revenge elsewhere—in the economic field. As the object of the war was for her the conquest of the markets of the world, she would find herself, even though apparently vanquished, the real beneficiary of this horrible conflict. Does she not proclaim, moreover, the intention of opposing to the economic entente which is being outlined between the Allies, another grouping—the "bloc" of Central Europe?

But it is too early to deal exhaustively with these questions. The criticisms of recent economic happenings have not been made. It is too soon, for instance, to say whether our compatriots, by entering into the Banca Commerciale Italiana, accomplished, as they believe, a work of purification, or whether, as some of our Italian friends affirm, they have played the part of dupes. It would be equally premature to express oneself on the greater or lesser likelihood of the realisation of the Mittel-Europa myth, or on the means of extracting practical results from the forthcoming conference of the Allies. To introduce these controversies into this book would only have resulted in weakening its demonstrative value.

For it is useful that the book shall retain this value. Notwithstanding efforts of which we have no wish to belittle either the merit or the importance, French manufacturers still need, and will still need for a considerable period, to meditate on the lessons of the war. It seems to us, then, that the time has not come when we should take away from this book its chronological qualification.

We have decided for these reasons to reprint it again with few alterations. We have limited ourselves to correcting some "lapsus" or some material errors,

to completing some (previously) insufficient facts. We have in a similar manner enlarged our conclusions, which might in their original form have presented a certain ambiguity. But, on the whole, this book remains as it was.

Some critics—otherwise very kind—have accused it of giving a too systematic view of German methods, of making excessive use of such phrases as "conquest of markets," "economic war," etc. Dangerous metaphors, they say, which have the disadvantage of infusing into the study of exchanges, images and notions which belong to the military world.

On this point we will not abandon a line of our original positions. Economic war, conquest of markets, are phrases which, applied to Germany, are far from being metaphors. More than ever do we feel that Germany during unclouded peace was waging war with the implements of peace.

Dumping, export bounties, import bonuses, combined sea-and-land transport rates, emigration measures—these are various methods which were employed by Germany not as the normal procedure of economic activity, but as means of strangling, crushing, and terrorising her adversaries. No economic theory is capable of prevailing against these facts. And all that has happened during the war, all that is in preparation for the day after, lends to our statements a new force.

PARIS,
April 15, 1916.

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GERMANY'S BUSINESS METHODS

INTRODUCTION

SOME REFLECTIONS ON GERMANY'S ECONOMIC RISE IN THE LAST FORTY YEARS

How Germany has become an economic power.

THE war which Germany has let loose on the world sets before the public opinion of Europe a question which seemed to have been reserved, up to these last few years, for the study of economists or historians. How the poor Germany of 1870, with scarcely a place in economic geography, has risen in some forty years to become one of the great forces of the world; how—borrowing the saying of Prince Frederick Charles on the eve of Metz—she has succeeded in supplementing her victory on the field of battle by conquests in the industrial arena—these are phenomena which demand the close consideration of men of affairs, commercial and industrial.

With her £1,000,000,000 of external trade, the German Empire occupied on the eve of war a position second in importance among mercantile States, with the first place held by England. She had become the second largest producer of pig-iron and iron, exceeding even the output of England, while as a producer of steel she was again the second largest in the world. Her merchant marine, inferior to that of France in 1870, (1)* was in 1913 outnumbered only by those of England and the United States.

*(1) See Notes commencing page 223.

Rapidity of Germany's rise.

One should not grow weary of repeating and examining some of the facts and figures which throw light at one and the same time on the extent of this phenomenal success, and the rapidity with which it has come about.

Karl Lamprecht (1) has noted that about 1880 the budding German industry still needed protection against its older rivals, and this protectionist movement set in motion, by reaction, the French movement of 1892.

At the time of the internal conflict of 1894–1901, on the problem of the canals, the question was discussed "whether the greater part of the occupations and the interests in the Empire had become industrial and commercial or whether it was still agricultural." Facts, however, supply the answer.

In 1893 the yearly consumption of raw iron per head of population did not reach 99 kilogrammes; in 1899 it touched 155, while the consumption of pit coal rose from 1940 kilogrammes to 2740. (2) During the same period the production of pig-iron and iron rose from less than 5 million to more than 8 million tons, and that of coal from 95 to 136 million tons. (3) In these six years, Germany's fate was decided by such an intense increase of production that it seemed "unhealthy" (4) and led inevitably to the formidable crisis of 1901.

Germany, in these six years, passed definitely from the agricultural to the industrial type of nation. (5) Of 67,000,000 Germans, barely 17,000,000 were living on agriculture at the beginning of the twentieth century. (6) Each year enormous numbers of peasants, turning their backs on the land, forced their way into stupendous manufactories. Towns grew with American rapidity, and forty-five of them already at that time contained a population of more than 100,000. Veritable armies of workers enrolled themselves under the command of captains of industry

—there were 15,000 men under a Mannesmann, 30,000 under a Thyssen, and 73,000 in the various works of a Krupp.

The enriching of Germany.

Germany, at one moment poor, became a rich country as if in an instant. The total revenue of the Empire's fortunes was valued at £840,000,000 in 1895; eighteen years later the estimates ranged between £1,600,000,000 and £2,000,000,000, and the German wealth was appraised at £12,800,000,000, of which nearly £380,000,000 was deposited in the banks and £720,000,000 in the savings banks. Such are the figures which caused Dr. Helfferich—then director of the Deutsche Bank, and at the time of writing Imperial Financial Secretary—to swell with pride on the occasion of the twenty-fifth anniversary of the accession of William II. (1)

This lavish increase of wealth made itself apparent to the least foreseeing eyes by a multitude of visible signs. If the adjective "kolossal" has acquired the important place in the German language which it now occupies, it is due solely to the fact that the German conception was colossal, while the execution became ultra-rapid.

In the western countries of Europe, the renewal of plant and machinery generally follows the duly established appearance of new requirements. Whether it concerns the creation of new districts to enable a town to spread its limits, whether it refers to the excavation of a canal or a port, or to the construction of a building, the plans of the work in question are always laid with due regard to existing conditions, or, if future needs are taken into consideration, they only anticipate the next few years' requirements at the most. Owing to administrative delays, machinery is generally out of date the very day it is delivered to the public, the harbour is too narrow or too shallow for the vessels which it should accommodate, the building

too restricted for the numerous services it should house.

And as the requirements grow in geometric proportion on account of the accelerated rhythm of modern production and distribution, this chasm between means and requirements becomes daily more disquieting. The most courageous exhibition of foresight is instantaneously nullified.

Our outlook is small and niggardly; we see with nearsighted vision; we look ten years ahead—twenty years at the very most; we seem to be afflicted by a species of economic myopia. The Germans, from 1880 to 1913, saw broadly and far. When they erected a post office, a station, or a school, they had regard not only to the needs of the moment, but to the requirements which might arise fifty years later. They constructed a dam at Bremerhaven; they made it 222 metres long, longer, in fact, than any of the great vessels of the period, and it required the tremendous growth in the capacity of transatlantic liners to prevent German audacity being at fault in this undertaking. They opened the Dortmund Canal. It was constructed from the first with a very broad waterway. And as in this instance the conception had in truth too far outstripped economic realities, because the grouping of hostile interests proved stronger than the Imperial wishes and the boldness of the engineers, nothing was more curious than to see this huge waterway practically unused, immense and empty. (1)

What did the Germans do when they wished to enlarge the port of Hamburg? They proceeded in no half-hearted manner. Whole sections of land were made to disappear by means of pick and dynamite, in a second as it were, to make room for the basins. They achieved their purpose so effectively that the traveller after only a few years' absence had difficulty in recognising the ancient Hansa town.

Another fact which struck the traveller (I do not

refer to the tourist, but to the observant traveller who from time to time visited Germany at short intervals) was the increase of luxury—luxury in houses, furnishing, clothes, and at the table. In twenty years, the German customs, even in the middle and lower middle classes, underwent a complete metamorphosis. The habit of eating wheaten bread and the use of wine became general, as did also the taste for garments of English cloth and cut. With the greediness of a "parvenu," Germany hastened to partake of these new joys, as if she saw in them the symbol of her definite entry into the circle of the more refined civilisations of the West. Germany had become very extravagant, and from his tribune in the Reichstag the Imperial Chancellor often reproached her for this prodigality, contrasting the increasing appetite of her subjects with the French peasant's thrift.

We—that is, men of my own generation—recall the Germany of simple and cheap living, the Germany of small salaries and equally small expenses; we recall also that extravagant and prodigal Germany of the years which preceded the war. The frequency of "dear living" crises and the repeated meat famines are incontrovertible evidence of the changes which the standard of life underwent in Germany, and, consequently, of the nation's enormous augmentation of wealth.

This prodigious growth becomes even more impressive if we turn our attention from Germany's internal conditions to those which prevailed outside her borders. Not only did the figures of Germany's external trade increase with unparalleled rapidity, but her domination was being established irresistibly on all markets. German banks, German trade, German shipping lines, and German information agencies were tending to encompass the world in an inextricable network.

Russia, equally with Guatemala, and Rotterdam, even as Constantinople, became, economically speak-

ing, German colonies. It was the German clerk in a French commission house who had the task of consigning our merchandise to Petrograd; it was he, in a city office, who negotiated the bills from Shanghai or from Sydney, and who undertook the French correspondence and handled the Spanish transactions with Latin America; it was he, also, whom one found at Buenos Ayres or at Rio.

Throughout the world the German commercial traveller carried German products; goods which became less and less trashy and which—thanks to moderate export prices, to conditions of delivery or of payment—came to compete with national industries on their own soil. And when that method did not suffice, when customs tariffs or transport freights set up barriers which were too high for the German product to overcome, German factories—metallurgical, chemical, and electrical—planted themselves in the foreign country as if it were a conquered land. Germany controlled mines, supplied dyes, set tramways in motion, distributed light and delivered lamps, and even went so far as to manufacture outside her borders munitions of war for her eventual opponents.

Italian, Swiss and Spanish industries became branches of German industry. Antwerp was a German port, Zurich and Milan became German towns, and France herself, powerless and resigned, countenanced the capture by German industry of French Lorraine and Normandy, which would eventually have extended even to the coal measures of Ouenza.

By means of the Norddeutsche Lloyd, the Hamburg-Amerika, the German Levant Line, and the Bagdad railway, the octopus extended its tentacles everywhere. (1) This Germanisation of the world appeared already so far advanced and so indisputable that many people saw in it a guarantee of peace. What necessity had Germany to wage war, to risk her all on a single throw of the dice, when all she needed to do was to wait, to allow the force of circumstances full play, so

that she might gain in complete peace more advantages than could ever be won for her by the most glorious of victories?

Another twenty years of this universal "peaceful penetration" and all the adverse forces would have been neutralised, strangled by the presence in every national organisation of the agents of German expansion. Another twenty years and the syndicate of five or six great Berlin banks would have assumed the economic direction of the world.

German industry during the war.

We have been able, during these months of war, to measure the power and the solidity of this formidable organisation. Germany was ready and equipped for the struggle, not only in the military sense, but also in the economic. Her finances, which antiquated and complacent tradition told us were fragile, have answered the great test as well as, and perhaps at first better than, those of the old States accustomed to the manipulation of gold; it required an unforeseen prolongation of the war to shatter them. Her industry was not disorganised overnight as were those of her rivals; her stacks continued to belch forth smoke; her factories were for a long period fully provided with raw material, accommodation, technical and working staffs, and transport facilities. And even more strange is the fact that her external trade was not completely stopped by a blockade in comparison with which the Continental System of Napoleon was but a farce. Thanks to the information with which Germany had long ago provided herself, she has succeeded in avoiding complete isolation, though the mastery of the seas has passed into the hands of her enemies.

Even if, as I write these lines, some big Rhenish banks have failed; if some great enterprises appear, denials notwithstanding, to be irreparably affected; if the scarcity of raw material at last enforced slower production on some industries, (1) many of them are

still prosperous, many factories distribute dividends which in some cases are actually higher than on former occasions. (1) Thus has German organisation affirmed its superiority. How often have the Germans proclaimed this superiority! It is time, however, that it should be recognised by the whole world.

In face of this extraordinary economic vitality of which besieged Germany to-day gives abundant proof, one may well pause to consider whether a vanquished Germany will not, on the morrow of the inevitable defeat, again methodically take up the threads of her attempt to secure economic victory.

This, surely, is a most disquieting hypothesis, because chief among the causes of this terrible war are the following factors: the desire of German industry to spread over the globe, and the methods it employed to secure dominating positions. Will the same causes, in ten years, in twenty years, produce the same effects —a new war?

Factors of Germany's wealth.

In order to know whether Germany will really be able to resume her abortive task after the coming of peace; in order to know, also, to what extent the Allies of to-day will be able to oppose her plans and to prevent her satisfying on economic ground that greed of domination which has up to the present resulted in disaster, military and political, it is necessary to examine the problem more closely, to analyse in detail the factors of German wealth.

Some of these factors are due to the nature of things. The fact that Germany possesses carboniferous deposits which provided her during latter years with 191,000,000 tons of coal and 82,000,000 tons of lignite (in all 273,000,000 tons), assures her a leading place in the world of industry on the modern scale. She has been rich in iron for many years, and it was only recently that she saw this wealth becoming exhausted. She is the great producer of potash. Her

eastern plains take rank with the most fertile beet-root and potato-producing districts.

But to these natural factors have been added the human factors, and it is of these factors that we would wish to understand the mechanism.

It does not suffice to praise in a general manner German methods, German procedure, and German organisation. We must know them and study them; not only for our intellectual satisfaction, for the pleasure of understanding the "why and wherefore" of Germany's rise. We must follow our adversaries in the spheres in which they triumph, and oppose their strategy by another strategy. We must also ascertain which of these methods and procedures to borrow from them and use against them, which of them are not transferable into our midst, and which are contrary to our national temperament, our institutions and our interests.

It behoves us, in fact, to bear in mind that Germany's wealth is the product of two forces. It is the point of intersection of two controlling lines; on the one hand, the German will such as history forged it; on the other, the economic conditions of the world as they were at the moment when the new Empire made its appearance.

"Germany's rise," wrote Paul Rohrbach in the *Jugend* of August 1912, "has been favoured by the fact that the political and economic union of Germany coincided with the most wonderful technical progress that humanity had ever seen. And this technique, founded on the methodical knowledge of nature, corresponded exactly in a most brilliant 'manner with one of the traits of our national temperament—exact and laborious energy." (1)

Qualities of the Germans.

Germany, to a large extent, owes her success, we must readily admit, to qualities which, in economic language, should be called virtues; firstly a power and a readiness to increase her population which, notwithstanding the recent and progressive decline in the

birthrate, assures for her each year a net addition of 800,000 pairs of hands. In the second place the German is industrious, a remarkably hard worker, who sets about his task with diligence and regularity. Even if he has not the inventive ingenuity of the neo-Latin, nor the latter's aptitude for striking efforts, he is not, on the other hand, susceptible to deceptive caprices nor fitful spells of idleness. To sum up the situation in a popular phrase, Germany does not "make every Monday a holiday," and Rohrbach has every reason to praise her "exakte Arbeitsenergie"—"exact and laborious energy."

Germany is disciplined. The habit of obedience, the innate respect for social superiorities, real or conventional, and the predominance in the Empire of the military organisation over civil institutions—all these factors tend to make the German as submissive to an order as to a military command. (1) The German, in a word, has the need and sense of government. He has not the jealous individualism of the Anglo-Saxon, any more than the Frenchman's somewhat matter-of-fact amiable sociability, which opens its arms to everything. An oft-repeated jest, which contains a great deal of truth, tells that when two Germans meet they always look for a third compatriot so that they may together found a gymnastic or choral society. Hence we get a novel conception of competition; not a struggle of individual against individual, but of groups against groups. We may say, in modern phraseology, that the German has the temperament of the syndicalist.

Imperial Germany finds herself adapted to the new conditions of production.

Now if the lateness of the period in which Germany entered the economic arena enabled her to possess machinery which was completely new, suited to technical requirements, and unhampered, like that of older nations, by antiquated tools, the special qualities of the Ger-

man supplied him with moral machinery remarkably adapted to the new conditions of industry.

The concentration of capital and of enterprises, the formation of enormous industrial agglomerations, the development of agreements between producers, the necessary grouping together of the nation's economic forces for the conquest of the world's markets—all these characteristics of the modern age corresponded with those of united Germany. "The reason," as M. Eugenio Rignano said recently, "why economic development takes place more rapidly in certain countries at a given period and in other countries at another period, exists perhaps in the fact that certain successive phases or forms of the evolution of production are found to be better adapted now to this people, now to that, according to the psychological qualities and moral habits which they demand from the producing class." (1)

The law of competition suited the Anglo-Saxon mentality. On the other hand, the law of concentration and grouping suited the German people "on account of its spirit of discipline and organisation. . . . Thus syndicates and cartels have become developed in Germany to an extent which has not been attained in any other country, perhaps not even in the United States; in that Germany where were inaugurated the closest possible collaboration of banks and industry and the direct participation of the former in commercial and industrial companies."

Certain deficiencies in the German character, even, have been at times useful to Germany. The total absence of the inventive spirit and of creative imagination was in the case of the German workman a condition favourable to manufacture in series [standardised production]—the economic and technical ideal of industry on the great modern scale.

Are German methods transferable?

What is there to say? Only that all the causes of the German rise do not provide the keys that open

every door; and not all are serviceable outside the country and the period for which they are created. Some of these causes are of universal value: increasing population, taste for travel, serious and unremitting application to the prescribed task, patient and minute study of industrial and commercial questions. These can be copied everywhere. Some, on the other hand, are the product of the remarkable conjunction, from 1880 to 1900 and later, of the history of Germany and of the world's economics. Of these latter causes many are not transferable and are, in consequence, inimitable. (1)

To demand of the French banks—without further ado—that they should copy the German institutions is to forget that the former have behind them a long past, anterior to the more recent developments of mammoth industry and of international trade, while the German banks, timidly called into existence towards the middle of the nineteenth century, only began their rise after the creation of the new Empire and at the same time as that of German industry.

To require the French State to play the same economic rôle as the German State is to wish that the French Republic were the German Empire; nay, far more—it is to wish that French citizens should assume the mentality of the subjects of his Majesty of Prussia.

On the study of German methods.

Let me say it at once—this book is not a miscellany of German prescriptions which we should hasten to make up into French prescriptions without more ado. To my mind we are running a twofold risk at the present moment. It would be madness to ignore the measures which have succeeded in Germany—it would be no less foolish to believe they could all be made operative by the French.

Some of my compatriots have for a considerable period undertaken the methodical study of these methods. From the disclosures in M. M. Schwob's

book of 1897, "The German Danger," to that prophetic book by M. H. A. Audrillon, "The Expansion of Germany and France" (1909); or "Germany at Work," by M. Victor Cambon, of recent date, what a number of documented works have appeared on this question. By reading these productions, the best known of which are those by M. Blondel, our manufacturers, exporters, and bankers could have obtained some idea of the mechanism of Germany's expansion, without the trouble of having recourse to the sources of information, the consular reports, the bulletins of our chambers of commerce, the more interesting bulletins of the French chambers of commerce abroad, and the reports by juries of universal exhibitions.

Permit me to place on record a personal recollection. In 1899, after several tours of investigation in Germany, I was to deliver in one of our universities a series of lectures on the causes of Germany's economic power. (1) In order to prepare these lectures, I gave myself up to a systematic ransacking of the French consular reports. I found them not only in the libraries of the French chambers of commerce (where they were then often covered by the dust of ages), but in the libraries of the German chambers of commerce. The secretaries of these latter institutions told me that nowhere could they lay their hands on more abundant and more weighty information. (2) And in fact German special publications made the fullest use of these reports.

What was there, then, in the French reports? They contained the exposure of the German system, they disclosed the mechanism taken apart piece by piece, and they gave advice to those of our compatriots who might wish to join battle.

This year, before writing this book, I have again made a searching examination of the consular reports, making use of those of more recent date. (3) I have added to them those reports of chambers of commerce which, non-existent or rudimentary sixteen

years ago, have shown a remarkable development. What have I found? Why, that the documents of 1913–14 exactly duplicate those of 1898. They repeat word for word the same things and in the same tone. There are the same statements, the same complaints, the same advices, the same reproofs, the same tenacity on the part of men who are anxious to shake the apathy of our exporters, the same feeling that these efforts are useless, that those concerned wish neither to read nor to listen.

Already in 1897 M. Maurice Schwob wrote with regard to our position in Southern Africa: "In his report . . . our consul has the kindness to map out for our traders a whole plan of campaign, very methodical and very concise, and having only one fault—which is that no French merchant will take the trouble to read it, and still less to follow it." Even at that date he was quoting such phrases as this one from our Consul at Bombay: "I do not see the use of referring here to appraisings which I have not ceased to formulate during five years, and which, unfortunately, have not had the result for which I had the right to hope." The equivalent of this despondent sentence may be found in the reports of 1907.

It is nearly twenty years since M. Klobukowski wrote from Yokohama: "It is proven that the sums of commission paid annually by certain of our merchants and traders to foreign houses of their choice—English, Swiss and German—would amply meet the general costs of a French agency." To speak only of this special point, is there any one of our Consuls who could not say as much to-day?

These reports continue to repeat themselves, let it be said, with tedious monotony. It has reached the point when, in order to draw up his annual report, a Consul with little desire to work may skim through the collection of previous reports, take from them ready-made phrases about the apathy of our merchants and the activity of our opponents, and tack

some new statistics to these generalities which are always true and always so unexpected.

Our examination of the economic conscience. Shall we be more fortunate than our predecessors, than the official organs of our consular representatives, than the French business communities established abroad? In the light of the tragic events which are now throwing the world into confusion, will our producers consent to read those books which concern their essential interests? If not, we may well despair of our future, because, if they do not do it to-day, when will they do it?

Never has the task of making our examination of the economic conscience been imposed on us with more urgency.

If we refuse to investigate why our rivals have beaten us, and how we shall be able to withstand them, our sons will have died in vain on the Marne and the Yser. The economic struggle will be resumed to-morrow, and all the more bitterly because the German people will need to make good its losses. If we do not take care, the spider will weave its web again; it will speedily take its revenge and we shall wake up in ten years to find ourselves enslaved once more by the people whom we had conquered.

If, on the other hand, at this unique moment in history, our merchants and manufacturers will read those books which have been written for them, perhaps they will skim through this one. We must therefore tell them in what spirit it is conceived and for what they may look in it.

We do not claim to have outlined a plan of action. We believe that this is the task of business men themselves. (1) Our ambition has been to give them information, to show them the methods used so successfully by the adversary; it is for them to see in which measure they must and can find inspiration.

We shall be told, to be sure, that this work of ex-

posure and analysis has already been done at frequent intervals and by master hands. We have no desire to re-do what has been done. You will not find in these pages what all the world knows or ought to know (what I might call the anecdotal history of German expansion), nor classic considerations of the diffusion of goods "made in Germany," and only briefly the characteristics of the German commercial traveller who sells a handkerchief in the first year, a penknife in the second, and a locomotive in the third. All this has been said and repeated a hundred times over.

What has not yet been done, we think, is to try to seize on the three or four essential factors of the German rise, to study these factors, not only in their action, but in their internal constitution, and to see to what extent they are bound up with a certain condition and a certain period of German civilisation.

To attempt this synthetic analysis, to discard details in order to reach at once the essential facts, to disentangle what there is specifically in the German bank, the German cartel, the German transport organisation, and the economic rôle played by the German State—such is the need which has seemed imperative and urgent.

PART I

THE NECESSITY FOR EXPANSION

"GERMANY," says M. Lévy-Bruhl, "has given her industry an amazing development by her exportation. In this way she became wealthy very quickly, but on the condition that her exportation always increases. She lives on it. . . . But if her exportation ceases to grow, she runs the risk of dying from it. Her own superabundant production stifles her." (1)

This remarkable analysis errs only in one point: it seems, at least in its phraseology, to convey the impression that if Germany has turned all her forces to the systematic conquest of external markets, she has done so by virtue of a deliberate plan. That would be a phenomenon unprecedented in economic history. At all times, and in all countries, producers first try to work for the home market. This market has grown progressively wider. In the Middle Ages it was the town and its precincts; since the fifteenth and sixteenth centuries it has become more and more the nation, while in the case of some modern peoples it has included more or less important parts of their colonial empire. In all countries of ancient culture, the internal market absorbs a very great majority of the products of the national activity. It is only the surplus—that portion which the home market has refused—that takes its way abroad.

Germany, in fact, has not escaped the operation of this law. Even in 1894 Lamprecht stated that exportation did not absorb an eighth part of German production, and he asked himself the question: "Is this eighth part sufficient to create a desire for a world-

wide political economy and for imperialism?" Yes, he answered, because this eighth part already represented a rapid growth of the portion reserved for foreign buyers; because the Germans experience the necessity for crystallising in formulæ the observations which they are able to make regarding the stages of their own evolution—formulæ which in their turn tend to accelerate this evolution on the lines which they indicate; lastly, because the Germans had already become seized by that feverish megalomania which was to drive them beyond their borders to overflow the world.

In the place of the Bismarckian policy of economic isolation, the members of the "new school" had substituted the policy of commercial treaties—the policy of expansion. Not only—to quote the typical German phrase—did the Empire change from an "Agrarstaat" to an "Industriestaat," but it passed with remarkable abruptness from national economy to universal economy. (1)

Industrial concentration.

This transformation was imposed on Germany by the combined action of a variety of circumstances. We have shown that the formation of Germany as a nation and as an economic State coincided with the era of industrial concentration. She was therefore naturally bound to receive to the fullest extent the impress of these new times. Germany entered into the family of nations precisely at the hour when the latter, more and more subjected to the régime of continuous over-production, were more and more obliged to regard questions of exportation as their most important concern.

From 1815 to the middle of the nineteenth century the conquest of foreign markets had been a vital problem for England alone. In 1870 this problem was already growing for France, and was about to arise for the United States.

United for the first time by the "Zollverein"

(Customs Union) which was to be complete in 1888, united more strongly by the Empire, and strengthened in her productive capacity by the annexation of Alsace, Germany proceeded to establish her manufactory on the most modern lines; she set about imparting to the pulse of this manufactory the most accelerated rhythm. Germany, then, was bound to find herself very suddenly—almost between one day and the next—at grips with problems which had elsewhere taken centuries to materialise.

The agrarian policy of the "Junkers," supported by the Iron Chancellor, was able to mask these problems for a time; but the German works continued to run and the industrial party to grow. Together they could not help triumphing, the one with the other.

We have also said that certain ethnical qualities of the Germans—labour and method, scientific spirit, discipline and group-consciousness—corresponded with the stage of evolution reached by the world about the year 1880. From the conjunction of these qualities and these circumstances there was to arise a new cause of the acceleration of the manufacturing machine.

Scientific organisation of production.

The qualities of the Germans were bound to lead—in their case more than in that of any other nation—to production scientifically conceived and scientifically organised. Not because the spirit of discovery is more generally prevalent in Germany than elsewhere—far from it. To prove the contrary it will be sufficient to point out that some of the technical discoveries which to-day represent Germany's industrial wealth—aniline dyes, the dynamo,[1] distant transmission of

[1] This does not prevent Germany from attributing this discovery to Siemens (*Deutsche Export Revue*, August 15, 1915). Already, in 1902, M. Haller drew attention to French inventions attributed to German chemists. On the real part of German collaboration in international scientific work, see P. Dulhem, *Revue des Deux Mondes*, February 1, 1915.

electric motive power, the Thomas process—are French or English discoveries.

But, in the first instance, Prussia at least has for centuries enjoyed compulsory primary education; there has thus been created, not a superior intellectual State, but a medium for the penetration of scientific ideas and their practical application into very extended strata of the population. In the second instance, science enjoys in Germany an almost mystic prestige.

The title of "Doktor," and in particular that of "Professor," are on the other side of the Rhine real titles of nobility. Even if they are not hereditary, they are imparted to the wives of the holders, and "Frau Professor" may take her place without fear by the side of "Frau Oberst" and "Frau Regierungsrat." This is not without some importance in a country where the social hierarchy has remained rigid and all-powerful, in this immense Empire which is only the village of Kotzebue immeasurably enlarged.

In France a university professor is a functionary who lectures on certain days of the week. He enjoys in the town where he lives just that amount of prestige conferred on him by the zeal and success with which he applies himself to his students, and by the authority he exercises, through his utterances, on the public grouped at the foot of his professorial chair. Beyond the town walls, he possesses the notoriety brought him by his books, if he writes any, and especially by his Parisian connections, if he has any. But business men, chiefs of public administrations, or directors of great enterprises will rarely think of consulting him. (1) They would rather be disposed, if he expressed an opinion on practical problems, to send him back to his academic throne with a somewhat contemptuous smile on their lips.

In Germany the professor is a power. Decorated, titled, "Geheimrat," "Excellency," he is a member of the social Staff; he is a trustee of the imperial

authority. As physician, chemist, physiologist, economist, or geographer, he is the obligatory auxiliary of the public services and the great industries.

All is not praiseworthy in this system. The prerogatives conferred on the German professor are purchased by a veritable domestication of the wise men, which leads at times to a domestication of science.

However high his place, the German professor is merely a step in this hierarchy; he has subordinates, but also superiors; he ranks below a general or a president of a province. And the respect which he owes to his title of privy councillor or of "Excellency" makes him forget that which he owes to science. Titled, rich also, and intoxicated by the perfume of administrative incense, it would cost him a great effort to renounce all this at one stroke. That is why Germany is the only country in the world where could be born the Manifesto of the Ninety-three.[1] Between the German professor and his foreign colleagues there is the same difference as between the dog and the wolf of the fable.

This hierarchical grading of science has another drawback, because the authority is conferred not by the personal value but by the title—we were about to say the rank. Such is the value of the office—such then is the value of the man. The statement of an "excellency" is worth more than the demonstrations of a "privat-docent." This evil, from which some sections at least of our high educational system in France already suffer—the cult and the domination of the "cher maître"—is in Germany an endemic disease. The professor, as Gaston Raphaël has said, is the German national malady. (1) From step to step, a cascade of pedantism descends on the nation, drowning initiative and stifling the spirit of discovery. "Es ist nicht wahr," their Excellencies proclaim. And

[1] The reference here is to the manifesto, justifying Germany's part in the war, issued in 1914 by ninety-three German theological professors.—M. E.

the chorus of simple "famuli" continues to repeat with all docility, "It is not true!"

Factory and laboratory. But in spite of these grave dangers, the cult of the "doctorat" presents very serious advantages from the point of view of industrial technique. In France every business man believes in his heart of hearts—or rather thought so up to fifteen years ago—that one can never understand business unless one does it oneself and for one's own account; very often also he thinks there is only one way of learning this science which he calls by the mysterious name of "business"—namely, to imitate the creators of enterprises which are to-day prosperous: to begin by sweeping out the shop, running errands, keeping accounts, measuring lengths of cloth—in short, to learn by experience.

It is only since a comparatively recent date that industrial and commercial communities, stimulated rather than enlightened by German example, set themselves to subsidise technical lectures or institutes at our universities, to create technical or commercial schools. I do not believe, moreover, that the majority of business men are entirely convinced of the usefulness of these institutions. For many among these men it is a luxury. They consider it fashionable and almost indispensable to make a show of it at the moment, but yet it is only a luxury. A director of a ctory will rarely conceive the idea of permanently ining the services of a professor unless this pro- r has deliberately relinquished his chair to become iness man. (1)

us enter a German manufactory, particularly ose which, working to satisfy the needs of ience, are even more strictly than others scientific discipline. Here we find our- tance, in the Geographical Institute of blishment whose superiority asserts beyond the frontiers of Germany,

which enjoys a kind of monopoly in regard to maps, atlases, guides, and geographical reviews, and which the most powerful foreign houses have never been able to excel.

It is a triumph of scientific organisation. It is a factory, but also a laboratory. A special library, constantly kept up to date, receives and classifies the world's geographical literature. (1) In large cupboards, each consecrated to a separate country or to a geographical entity, there are piled up new documents, explorers' reports, tracing of frontiers, maps published by geographical reviews, and even the sketch plans from newspapers. Every time, therefore, a new edition of one of those maps which are the glory of this institute is undertaken, the cartographer has only to dip into these collections to bring his map up to date. He may boldly date it.

It is, in fact, the final state of the science that the lithographer will engrave on his stone, that will then be transferred on the copper plate, that the galvanoplastic process will reproduce cheaply in numerous copies, and that will be obtained in pocket editions by the use of photography. Nothing is more curious than to see in the sheds on the ground floor the pile of stones which served their purpose in former times—a cemetery of defunct maps. This alone says much for the power of this organisation, for its continuity of effort.

And if you ask to be presented to one of the chiefs of this enormous manufactory, whom do you find seated in a director's office? A university professor, one of those illustrious "savants" whom we only know in France through their scientific reputation, and who do not in Germany disdain to consecrate a part of their time—time which is plentifully remunerated—to an industrial enterprise.

A similar story would have to be told of the celebrated Jena factory of optical instruments, created by the collaboration of a working mechanician who had

followed the university lectures—Carl Zeiss—and a scientist, Professor Abbe. In its very history the union of science and industry is asserted. (1) It is not, as will be seen, a question of a purely formal union, useful for providing themes for official orators, but in reality an intimate association for a precise purpose.

These are things which have been said hundreds of times, and which we are ashamed to repeat. And yet they must be repeated until they have penetrated into every intellect. This daily and close union of laboratory and factory shows itself particularly in the realm of chemical industries. Already in 1897, Professor F. Fischer (2) spoke of it with pride. "It is generally recognised," he said, "that the German chemical industry owes its preponderating position solely to the high scientific preparation of its collaborators." Our compatriot, Dr. Roux, a pupil of Pasteur, echoed this sentence of his German colleague in opening a course of lectures at Lille University at the beginning of 1898, when he said— (3)

"Some weeks ago I visited an immense dye factory in the vicinity of Rhenish Prussia. I went through a laboratory full of activity and marvellously equipped, where more than fifty chemists were at work. 'These are not the chemists employed by the firm,' I was told when I expressed my surprise at their large number. 'They are young doctors who have left their universities and wish to continue research work. They find here, free, the means to work, and they conduct their researches in whatever direction they choose. We do not mind what goal they select; as long as science progresses, we will always reap the benefit.'"

Shortly after the conclusion of the Universal Exhibition of 1900, M. Haller pointed out to us "what a nation can do which has known how to place that marvellous tool—science allied to technique—at the service of a tenacious will." It would be just to remark that this alliance had already been concluded

before 1870. Germany was ready to answer to the call of destiny, she was armed for a war in which scientific weapons were going to play the chief part. She was, to quote M. Haller again, "already organised and equipped, both materially and intellectually, to turn to account the results obtained abroad, and to profit at the same time from the prestige which her victories gave her."

This faith in science, in the economic yield of science, has not diminished, for in 1910 a director of a chemical products company enumerated to M. Victor Cambon his 145 chemists, of whom seventy-five were employed in the current business and its direction, and seventy in research work. "These seventy searchers," said the director, "cost us £14,000 a year. Nine-tenths of them produce nothing, but the remaining tenth may find us the means of making hundreds of thousands of pounds each year." (1) Compare, then, this "union of scientific theory and practical application," as says M. Paul de Rousiers, (2) with the anti-scientific empiricism of the English or with the French canker—the mutual disdain of the professor for industrial pursuits and of the industrial chief for the product of the schools.

The German conception has given the German manufactory uncontested superiority. If German chemists have to their credit—no insult to Wilhelm Ostwald—only few of the discoveries of genius, yet hardly a day passes without the legions of German factory chemists adding some hitherto unregistered shade to the scale of colours, or enriching the list of pharmaceutical specialities by a new product. The German chemical industry (I do not say "German chemistry") had obtained the domination of the world to such an extent that the war all but arrested the operation of industries employing dyes, phenols, etc., in the countries of the enemies of Germany, and even in those of neutrals.

By the blockade of Germany, it was Lyons and

Como, it was the English cloth trade, and even the United States which found themselves blockaded. Germany has even been able, in order to obtain certain economic concessions from neutral States, to use the threat of never again delivering to them her chemical products. Do not let us forget that up to 1830 the German chemical industry was limited to the treatment of the Stassfurt salts, soda and potash, to saltpetre and yeast. The first lead vessel for the production of sulphuric acid only dated from 1820, and up to 1843 Germany's one soda factory produced a bare 200 tons a year. (1)

The two leading discoveries—fuchsine and aniline-violet—originated in France and England. But the Germans realised that their wealth in combustible minerals (in 1914 they were approaching an annual coal production of 300 million tons) gave them an advantage for the manufacture of dyes from coal tar.

The Badische of Ludwigshafen, Bayer of Elberfeld, and Meister of Hoechst set their chemists to work. The Badische made synthetic alizarin. In 1880 this company purchased the Bayer patents for artificial indigo. It spent seventeen years of minute research to bring this discovery to industrial perfection. After 1895 the value of the production of alizarin rose to £650,000, and that of other coal-tar dyes to £3,400,000. In a period of twenty-five years, the German chemical industry had surpassed all others. (2) As M. Haller wrote at the beginning of this century, "We are compelled to recognise that the German industry occupies the leading place."

What we are saying about chemistry may also be said of electro-technique and metallurgy. German metallurgy has not "the inventive character, the initiative, of its English, French, and American rivals," (3) but it triumphs in its "persevering application" and its "scientific perfection of methods." The Westphalian manufacturers did not discover any of the new processes in the manufacture of steel, but

they were "more prompt than the English in applying them."

Sir Robert Hadfield teaches us on this score: "When I saw," he said in 1912, "the immense physical and chemical laboratory recently installed at the Krupp works at an expense of £100,000—an institution of scientific research such as is possessed by no university in the world—I became again aware of the primordial rôle in industry which Germany assigns to science. My admiration grew when I visited the Government institutions of mechanical experiments, of analysis and of research. It is in the laboratories of Essen, Berlin, and Gross-Lichterfelde that Germany wins her industrial victories. It is the brain of the universities and of the technical schools which makes Germany powerful in the markets of the world." (1)

Universities and technical schools! The doctors who leave the universities or the high technical schools (eleven Polytechnica, with 12,000 students, supply industry with 3000 engineers yearly) form the Staff of the factories. (2) Under their orders there work a large number of individuals from the Technicums, who have a less advanced technical education. These are the non-commissioned officers of the industrial army, and the hierarchy is no less strict in this than in the military army.

In France, by a confidence in the native qualities of the race which is often justified and sometimes excessive, we are inclined to believe that it is unnecessary to have learnt in order to know; that personal intelligence—intransmissible capital—and general culture are all-sufficient and enable everything to be understood. And it happens that facts often confirm the correctness of this theory; but this confidence which we place in the qualities of the individual retards and restrains the evolution of the masses. In Germany it is believed with an excessive faith that everything may be learned and that everything may

be taught—cooking just as chemistry, the art of keeping a house as that of constructing it, good taste as chemical formulas—and it is also believed that one only knows that which one has well learned.

A representative of the German art industries confesses to M. Blondel that his compatriots are in that domain backward compared with the French. "What does that matter?" he says. "We shall send our students to Paris so that they may become initiated in the French industrial art. We thus evolve young people who produce works of great taste, and who contribute little by little to the perfecting of objects of German origin." (1) At least they believe it—they believe that it is possible to replace centuries of culture by recipes—and the best of it all is that they finish by making even the French believe it!

But if there is no pedagogy in good taste, there is one in the manufacture of aniline dyes or of metal filament lamps. And if this pedagogy is powerless to confer the genius for great discoveries on the brains of those on whom the Spirit has not breathed, it results, in detail, in a very happy diffusion of the inventive spirit. One of the characteristics of German industrial life, remarks M. V. Cambon, is that the "demands for patents are innumerable." The Patent Office examines 35,000 patents yearly. (2) To this add the fact that the German patent legislation, very different from ours and far removed from our prudent "S. G. D. G." (sans Garanti du Gouvernement), is a perpetual stimulus to research.

Very often even, foreign discoveries, ignored in the country of their origin, become transformed into German patents, ready straightway to return—burdened with royalties—to the ungrateful land which formerly would have none of them. Only recently there was a striking example of this: Certain Frenchmen, desirous of suppressing the frequent fires in cinemas, thought of replacing the nitrate by the acetate of cellulose in the manufacture of films.

Unable to place their process in France, they sold their patent to a German firm, and now the French communes compel the film producers to use the new process! (1) Is not this also the case regarding a product with which a German constructor claims to give flying machines invisible wings?

This scientific conception of industry is assuredly not a monopoly of the Germans, nor is it a German invention. Without going back further, it was at least at the end of the eighteenth century in England, and at the beginning of the nineteenth century in France, that the relatively new idea of "science applied to industry" appeared in full light. In 1801 the Society for the Encouragement of National Industry was formed with this programme by Foucroy, Monge, Conte, Berthôllet and Thénard. In 1819 the first of the presidents of the Society, Chaptal, announced in his remarkable work "De l'Industrie Française" that industry was going to be renewed by science—and the discoveries of Chevreul proved him right. But of this tendency, of this direction of science towards practical application, the Germans have made a system.

Massed production. The methodical and general adoption of this system entails very important industrial consequences. The perfection of technique has as an effect the aggravation of one of the essential characteristics of modern industry—production in great quantities. It is no longer the demand that regulates the stream of production, it is the plant; it is the furnace which must not be permitted to go out, it is the machine which must continue to revolve, it is the dynamo which does not cease from transforming into electric power the energy created by coal or by water power.

Yet another regulating factor is the intellectual machinery. On the morrow of a discovery it is necessary, by an intensive production of the new

commodity, to recover not only the expenses entailed by the maintenance of the fortunate scientist who has made the discovery, but also of all those who have found nothing.

This production is all the more intensive, as one of the most obvious results of technical progress is the lowering of the cost, and in consequence of the sale price. In 1870 a kilogramme of madder dye was worth seventeen francs; in 1890 the Badische sold it at less than two francs. (1) In order to realise profits under these new conditions, it is necessary to produce in enormous masses.

Standardised production.

Massed manufacture has as a complement manufacture in series (standardised production). Scientific industrial organisation makes this manufacture possible. The technical man's mission is to establish types, and then to produce the special machinery which will enable these types to be reproduced in an indefinite number of copies. Then, when the plant has been installed, standardised manufacture becomes a necessity, because it is the sole means of considerably reducing the cost of production and of rapidly redeeming the expenditure on the machinery.

In this way a single workshop of the Allgemeine Electrizitätsgesellschaft makes 150,000 motors yearly, while another shop turns out 95,000 meters. (2) Thus one factory produces annually 50 million metres of cinema film.

"At first sight," says a perspicacious observer, "the German industrial system appears to be very onerous. Companies sink startling sums in material which is costly and incessantly renewed." (3) Obliged as they were in 1870 suddenly to procure new machinery, the Germans have retained the habit of renewing it without respite, and it is thus that they have—in the domain of machine tools—conquered a position neighbouring that of America.

The plant in its turn rules production, encloses it in a certain number of definite types, because it is not possible to multiply machines in excess, because the parts manufactured by these machines must remain interchangeable. The perfected plant thus exercises a perpetual clogging action on the creative faculties of the workman; it is to a certain extent opposed to the spirit of discovery. But it induces a considerable and constant reduction of the price of production, and it enables much speedier delivery to be made, by obviating preparatory studies for each isolated order. (1)

M. David-Mennet (2) recently quoted the case of a manufacturer who needed a machine at a very short notice. He applied to several French makers. Only one declared himself prepared to deal, but he required several months and quoted a high price on account of the special manufacture. Three German houses, however, were continually making this type of machine, thus always having some in course of manufacture, and they offered to deliver in three or four weeks at 20 or 25 per cent. below the price of their French competitors!

One has been able, at the beginning of this war, to compare the two methods in an industry which seemed really French—that of aviation. Giving play to their inventive spirit, our constructors had multiplied the models; the theorist could not but rejoice at this emulation, this perpetual search for the best, because each new step brought us nearer to the ideal flying machine. But in practice it became very difficult to form homogeneous squadrons, and practically impossible to proceed at the different centres with urgent repairs and to find there the necessary "spares." Less anxious about perfection than abundant and rapid manufacture, the Germans limited themselves voluntarily to three types.

Production in series, a consequence of massed production, drives on this massed production because

it achieves cheapness. "Cheap and nasty"—"billig und schlecht"—was for a long time the motto of German industry. This motto has ceased during latter years to be an absolute truth. In the case of many articles, to be sure, "German trash" was not a frivolous description, (1) and the products from beyond the Rhine rarely possessed those qualities of dependable solidity and of artistic finish which characterise the products of England and France.

Many varieties of German goods, however, began to improve while remaining cheap. The low price acted chiefly as a new incentive to production, as a perpetual appeal to inventors. By perfecting the plant, by increasing the share of machinery in work, by transforming into standardised production those few operations which had not yet been subjected to that régime, the Germans continued to lower the cost of manufacture, and in consequence to increase the capacity of their factories. The capacity—that is to say, the need to produce. For all these reasons German industry marched with ever-accelerated steps towards over-production.

Over-production. One might say, not without reason, that this phenomenon is not confined to German industry. It is one of the general characteristics of modern industry. While in former times production regulated its pace according to ascertained demand, or at the most to shortly foreseen needs, it is almost inevitable that the modern factory multiplies its products more quickly than the number of consumers. But nowhere does this phenomenon appear more striking than in the case of new Germany.

It is not necessary to be a professional economist to notice it. One has only to see, in the streets of Leipzig, Dresden, and Hanover, those immense shops, those enormous windows which comprise several floors, and behind which are accumulated stacks as prodigious as they are devoid of art—masses of articles, all alike.

One cannot avoid the thought that, notwithstanding the growth of the population, there cannot be found in Germany enough purchasers for such quantities of goods. And behind these which encumber the shops there are those which the tireless machine continues to produce. One has the feeling of a continuous crisis of over-production.

Rupture of the balance between consumption and production.

What aggravates this crisis is the abruptness of Germany's rise. The pace of German evolution has been almost catastrophic. Out of the group of agricultural States, spotted with industrial patches, which in 1870 constituted the "Zollverein," the industrial Empire has developed in a few years, by a kind of historic "volte-face," without any of that gradual preparation through the centuries which characterises, for example, the English power.

Industrial Germany is a work in which time has not collaborated. In it—as almost everywhere in modern Germany—we find once more the "parvenu." The rupture of the equilibrium between national production and the home market's capacity for absorption occurred here with remarkable suddenness.

One might think that this disparity would be modified by the growth of population and by the suspension of emigration. If Germany gains yearly 800,000 new subjects, that means also 800,000 new mouths, 800,000 new consumers of the products of the German factory. Twenty-five years ago a considerable part of this growth left the country. Between 1880 and 1883 the yearly emigration exceeded 200,000, but to-day it does not reach 20,000—about the figure of French emigration, which is considered very insignificant.

More than that, the number of arrivals largely exceeds that of the departures at the present day. Germany, from a country of emigration, has become a country of immigration. Without speaking of the temporary influx which brought 700,000 Slav workers

—Russians, Poles, and Galicians—yearly into the great provinces of the east, nor of the Italians who worked in the mines of Lorraine, it is known that on the eve of war the Poles were on the way to "Slavise," district by district, the Rhenish-Westphalian region. Permanent or temporary immigrants, they were so many consumers acquired by German factories.

The rural exodus. But this movement is more than compensated by another of far greater magnitude. The rapidity with which the industrial revolution took place, the almost magical creation of new and immense works, had as a consequence an enormous exodus from the country to the towns, of rural populations to the industrial districts. Literally speaking, the German countryside emptied itself. Accustomed as we Frenchmen are to placing in the agricultural landscape the silhouette of the farmer who drives the ploughshare into the soil, of the ox-driver who goads on his oxen, of the reaper, the dairymaid, and the vine-dresser, we look for the peasant from the windows of the German carriage and we find him not. In this over-populated country the land seems to us deserted, especially in the cold plateaus of Bavaria and in the heaths of the north. In reality the population which lives in the country has ceased since 1895 to be one-half of the country's total population. Now it only represents 44 per cent. Out of 67 million Germans barely 17 million are agriculturists or live from agriculture.

We find in this also a phenomenon which is not specifically German—it occurred in England, it occurs in France—but which obtains in Germany with remarkable intensity and rapidity. The very industrialisation of agriculture, the growth of intensive culture, precipitates the rural exodus. It increases the returns, but it requires heavy capital, while landowners of moderate means, incapable of adapting themselves to these new conditions, cede their lands

to bankers, who exploit them like factories. This drives to the towns the tenants and all the agricultural employees, as well as the families of the landowners. In the whole eastern region of the Prussian monarchy capitalistic agriculture triumphs more and more, while it has recourse to foreign manual labour.

These peasants, who, to the number of about half a million, leave the land each year for the factory—those are the consumers by which the capacity of consumption has increased. In all countries the workman consumes more than the peasant, and the German workman saves little. But these consumers are also producers. They increase prodigiously the output of German works; under the action of their masses the formidable wheel turns ever more quickly. This growing and riotous acceleration of production creates an increasing want of balance between this very production and the home market's power of absorption.

The question of markets. In consequence, the question of foreign markets presents itself with almost tragic urgency. These markets are required in order to sell the surplus of the national production; but this surplus has ceased to be a negligible quantity, a kind of margin to the mass consumed within the frontiers. Sometimes actually half the production is exported, as in the case of wire. Taken as a whole, and including coal and pig-iron, the proportion of the products of German industry available for exportation is estimated at 60 or 70 per cent.

Capital. This surplus must be sold—at any price. It is necessary, in the first instance, in order to remunerate the capital engaged in the industry, capital which is always increased by the constant rejuvenation of plant.

The number of share companies towards the middle of the nineteenth century was 200, with capital of less than £125,000,000; during the years which followed

the war of 1870 the number increased to 857, with capital of £165,000,000. In 1914 this capital exceeded £1,000,000,000! Every now and again these companies increased their capital in proportions which would make us shudder. The Allgemeine Electrizitätsgesellschaft had in 1883 a share capital of only £250,000, in 1900 £3,000,000, in 1911 of £6,500,000, and in 1912 of £8,000,000, plus £5,500,000 of debentures. Certain companies continue this increase in this very hour of warfare.

Think, though, of the charges these companies assume! Gelsenkirchen has to pay dividends on £9,000,000 of shares in addition to the interest on £3,900,000 of debentures. Krupp on £9,000,000 and £2,750,000, and the Phœnix on £5,300,000 and £1,600,000 respectively. Then the shareholders, intoxicated by the very rapidity of the industrial growth, become accustomed to great dividends—15, 25, 35 per cent. are the figures noted on the markets of metallurgical and electrical shares. But at the moment when the restriction of markets provokes a crisis, as in 1901, the enormity of these profits gives the crisis a formidable amplitude; between 1898–1900 and 1900–1901 numbers of metallurgical firms saw the quotations of their shares fall respectively from £12 16*s.* to £4 3*s.*, from £7 9*s.* to £2 2*s.*, etc., while the dividends declined from 15 per cent. to nil, from 7 per cent. to nil, from 25 per cent. to 12 per cent., and from 35 per cent. to nil. Schuckert shares, £14 8*s.* in 1897, were £5 in December 1901, and the dividend fell from 15 per cent. to nil. Let business become even more restricted, and failure—or rather an avalanche of failures—overwhelms economic Germany. (1)

Wages. It is necessary to sell abroad to remunerate the capital employed, to pay those working armies the recruiting of which we have already examined. Thyssen founded his works in 1871 with seventy workers; in 1911 he employed 8000 at Mülheim and

8500 at Brückhausen, in addition to more than 15,000 miners at Duisburg. Every restriction of markets creates unemployment, which at once assumes alarming proportions among such masses of labour. (1) With the number of these workers, the scale of their wages increases also. It grows, contrary to a very prevalent idea, much faster than in France.

In 1886, coal miners received yearly 965 francs in the Ruhr, 1010 francs in the Sarre, 612½ francs in Silesia, while the average in France was 1049 francs. From 1889 the pay of the German miners was always higher than the French average; in 1901 the figures were 1530 francs in the Ruhr, 1303 francs in the Sarre, 1090 francs in Silesia, and 1396 francs in France, which give us percentages of increase of 58 per cent., 28·96 per cent., and 79·96 per cent., against 33 per cent. in France. (2) In the electrical construction industry, writes M. Hillairet, "the German wages equal the French wages, and exceed them sometimes in the proportion of the pfennig to the centime"—that is to say, by 25 per cent.

The highly effective organisation of Social Democracy, trade unions, and strikes tends to increase these rates. The social policy inaugurated by William II, with the working men's insurance, imposes on undertakings very heavy burdens, which are again added to the wage-cost. These undertakings finally are committed, as an insurance against strikes, to a whole series of supplementary charges—workmen's dwellings, supply stores, schools, medical attendance, etc. The workmen's cities created by Krupp's at Essen and by Meister at Hoechst are in this respect models indeed, but models which are expensive.

Produce and raw material.

It is necessary to sell because it is necessary to buy. Although the exportation (special commerce) in 1913 totalled £504,800, it was nevertheless exceeded by

the importation (£538,500). "Germany must pay for raw material and foodstuffs by means of her exportation of industrial products." (1) As to provisions, it is obvious that the rural exodus and the industrialisation of the people have created in the German towns a formidable demand for cereals, meat, beverages, etc. Notwithstanding its progress and systematic organisation, German agriculture is not in a position to meet this demand. "Up to about 1875 Germany exported agricultural products." In 1881 the excess of imports over exports already amounted to £50,000,000. In 1895, when the transformation of the agrarian State into an industrial State had been achieved, this difference was valued at £100,000,000. Yesterday it reached £120,000,000, and it was estimated that the number of Germans dependent for their food on foreign crops and cattle was 20 million out of 67 million—more than two out of seven. The feeling of this dependence has even contrived to lead the Germans to the idea of an inevitable war against England. They very soon began to dread a blockade, and wished for the ruin of the Power which could blockade them. (2)

According to every hypothesis, Germany was compelled to sell more and more abroad to pay for cereals—chiefly wheat—meat, and fodder, which she drew from Russia, North America, and the Argentine. Of only one commodity of agricultural origin did she remain largely an exporter—namely, sugar. For the rest she had to pay in manufactured articles, machinery, locomotives, and electrical apparatus, etc.

She was compelled to sell also in order to pay for the raw materials necessary to her own industrial activity. That may seem paradoxical. In effect, among the causes of Germany's rise on the morrow of 1870 must be included the discovery, or at least the exploitation, of great natural wealth, particularly of coal and iron. Germany has remained a very large producer of pit coal and lignite; from 50 million tons

in 1880, the figure rose to 121 millions in 1905, 225 millions in 1912, and 273 millions in 1913. In the form of coal or coke, she exports her pit products to Belgium and French Lorraine. Defeating England even in the Mediterranean, she revictuals to a great extent the depot of Algiers. But if she remains rich in combustibles, she has become a poor country in iron, in comparison to her needs.

Germany might well submit her mines to intensive exploitation; the development of her metallurgy has been far more rapid than that of the extraction. In one case alone, that of pig-iron, the production rose from 2½ million tons in 1880 to 11 millions in 1905 and 18 millions in 1912. To satisfy such a gluttonous appetite recourse must be had largely to foreign minerals. Long ago Krupp's acquired mines at Bilbao and tried to assure for themselves a part of the Swedish production, while Thyssen's provided for themselves in French Lorraine and in Normandy.

Although Germany still possesses important beds which are far from being worked out—although it is early yet to speak of exhaustion—there is here a very embarrassing situation. (1) The German iron-working industry already supplies itself to the extent of half its metal from foreign sources. At the time of the Moroccan dispute, the manufacturers called on the Government to assure the feeding of German industry during an unlimited period; they moreover conceived an exaggerated idea of Morocco's mineral wealth. The *Neckar Zeitung* wrote at the time that Germany was, relatively speaking, the poorest country in minerals on the Continent, and that sooner or later she would fall into dependence on foreign supplies. In order to pay for the enormous quantities of minerals which she demands from Sweden, Spain, and France, Germany is compelled to export not only combustibles but more than a third of her metallurgical production.

Germany in 1870 was not very rich in textile industries, for the annexation of Alsace was enough, between

one day and the next, to double the capacity of her cotton industry. To-day she buys considerably more than £25,000,000 worth of raw cotton. This is the heaviest item of her imports—an enormous tribute paid to the United States, a tribute which is all the more heavy as America is absolute master of the prices; for instance, the rise caused in 1904 by the Sully corner meant to Germany a net loss of £5,850,000, without speaking of the reduction of consumption, the stopping of looms, the discharge of workers, and the decline of wages.

By the side of the working *personnel*, there is the technical staff. It was not only the development of applied sciences which was a factor of over-production, but the over-production of scientists, or rather of the young chemists and engineers whom we have seen leaving the universities and the Technicums in serried multitudes. Already, on the very morrow of the crisis of 1901, M. Haller insisted on the influence exercised on this episode by "the plethora of intellectual forces, new and full of initiative, which Germany's higher schools periodically put into circulation. Anxious to make fruitful the knowledge-capital which they have at their control, and also dazzled by the successes which have attended their elders, the young technicians undertake the creation of new business without worrying themselves about markets, and thus cause over-production."

Let us add finally that the rapid enriching of Germany has given birth there to new needs, the need for articles of luxury. We have already described this species of fever—fever of the "parvenu"—with which the Germans have tried to procure for themselves joys till then unknown. Now Germany did not produce these articles of luxury. Thus she became one of the largest customers of our vine-growers; for fruits of the South and flowers she was an excellent client of our Provence, our Algeria, Italy, and Spain. Among the luxuries which became highly developed in Ger-

many must be noted the luxury of travel; middle-class and small purses opened for it, equally with the well filled. Yearly there was a peaceful but triumphant invasion of the shores of the Riviera or the sub-alpine lakes of Switzerland and of Scandinavia. All this must be paid for. To compensate the export of gold which these manifestations of frenzied touring represent, it was necessary to export and export again.

For, apart from some fortunate exceptions (such as potash), "German exports do not consist of raw materials which cannot be found elsewhere, but on the contrary German industry limits herself to the transformation of raw materials which she must look for abroad—she thus finds herself in a state of dependence." (1)

The systematic organisation of over-production.

Exportation—the organisation of the industrial system with a view to exportation—was thus for united Germany a vital necessity before it became a policy. Assuredly, when once the grandiose machine had been set in motion, German pride took pleasure in contemplating it, and then in accelerating its movement. From the simple means it had been, exportation became an aim in itself, and in effect it grew to be a cause. They had exported to avoid superabundance; they set themselves to create superabundance in order to export more.

The selling organisation — Verkaufsapparat — had been perfected with a tenacity of purpose which should serve as an example to the rivals of Germany. This organisation has in its turn reacted on the rhythm of production. By dint of emptying the shops of their stock, it has been a perpetual incentive to replenish them and to "clear" them again. The commercial apparatus, on account of its perfection, ended by accelerating the play of the industrial apparatus to a vicious extent.

"The Germans, of deliberate purpose, have pro-

digiously and systematically exceeded the needs of their home market. They have produced in such a fashion as to flood the world, and they do not hide the facts." (1) Germany has organised over-production, and over-production in its turn obliges her to find an outlet in an exportation which becomes more considerable each day. In 1874 Germany exported goods worth £117,500,000; in 1900 this figure was nearly doubled; in 1913 it exceeded £500,000,000. As the imports exceeded even these figures, foreign trade took a larger and larger part in the national activity. It represented (special trade) on the morrow of the foundation of the Empire, only £7 per head per year. Notwithstanding the growth of the population, this quotient reached £16 on the eve of the present war.

Germany, by an endless movement, was thus perpetually drawn into a truly infernal circle: to produce always more, to sell more, to sell always more to supply the necessities of an ever more intense production. To borrow a striking image of M. Bonnefon's: "Germany is suspended from the world's markets." (2)

It is, however, only just to recognise this fact—that in the beginning it was a whole combination of circumstances, of which the Germans were not absolutely masters, which imposed on German manufacturers this perilous formula: "Flood the world." Once launched in this direction, the machine does not stop. Marching from success to success, pushed forward by the brand of the imperial power, industrial Germany is seized "by a kind of intoxication."

Germany has seen fortune smile "on her temerities and her audacities"—she has easily triumphed over crises; she has finished by renouncing every foresight. (3)

PART II

THE PRINCIPAL FACTORS OF THE EXPANSION

THE problem which faced united Germany was the conquest of markets. To retain those which she possessed, to drive from them foreign competition, and even that competition which might arise in foreign territory from the autonomous development of indigenous industry; to acquire new markets against the day when the old markets should become glutted, or show themselves refractory—these were the elements of the problem.

But in order to undertake these operations, to flood the world with German products and to direct to Germany a growing stream of orders, it is first necessary to establish capital, create manufactories, install and renew expensive plant; it is necessary to make capital circulate, to transport it to fields where it can obtain its maximum of profit, to volatilise it by means of credit. It is necessary to group German manufacturers in solid unions, organised for that conquest of markets which is a necessity and becomes a "mot d'ordre." It is necessary to substitute, for individual competition on the national market, collective competition on the market of the world.

German industry must appear on this market like a combination of forces, a disciplined force divided into army corps. The economic struggle is a war, like other wars, subjected also to the rules of Clausewitz. In this war, as in the others, the objective is to crush the adversary by every suitable means, to shatter his will to resist, to impose on him the will of the aggressor. There is a "Kriegsbrauch im Wirtschaftskriege"

(war usage in the economic war), and this code of usages is totally different from the current morality—from that which, within a country, rules the mutual relations of merchants.

The rôle which is played by terror in actual warfare is delegated here to prestige. To proclaim by various methods the superiority of German industry, to cause this idea to penetrate like an uncontrovertible axiom into the brains of actual or possible customers—this is a necessity for which the intellectual forces of the nation and the public power must collaborate. Nothing, in this vitally necessary work, must be left to chance, nor to the caprice of individual whim. Everything must be regulated with an eye to the object to be attained, which is the systematic exploitation of the world. By this methodical organisation will be realised in the domain of exchanges, as in that of strategy and of politics, the sovereign formula "Deutschland über Alles."

CHAPTER I

BANKS AND CREDIT

On the medley of functions in German banks.

GERMAN banks, it has been said, are "at one and the same time deposit banks, credit banks, and financing companies." (1) Schaeffle named them enterprises for all purposes—"allerlei Enterprisen," which may be somewhat loosely translated as "banks of all trades."

Thereupon our compatriots go into ecstasies, perhaps a little hastily, over this multifarious activity of the German banks. They admire these banks for having boldly blended operations which French prudence (and still more that of the English) keeps carefully separate. They rail against the majestic impassibility of our credit establishments, which are exhorted to follow the example of German banks—to place the funds at their disposal and their power of credit at the command of industry.

Without introducing here a doctrinaire judgment on the German conception of a bank, we will simply say that one does not manufacture at will a financial organisation in which the deposit bank is at the same time a business bank. The German bank is an historic product, the product of numerous causes which are not in our power to reproduce.

Historic causes of this medley.

The German banks arrived late upon the scene, like German industry. Before 1848 there only existed in the various States of the Confederation banks of the ancient type—private banks, often family banks, managing

the fortunes of rich private people. (1) In 1848 the ancient house of Abraham Schaafhausen, shaken by the revolutionary crisis, was reconstructed as a share company, the Schaafhausenscher Bankverein of Cologne, with a capital of £780,000. In 1851 there was created at Berlin the Disconto Gesellschaft, at first in the form of a credit society which became in 1856 a share company with a capital of £1,500,000. In 1853 arose at Darmstadt the Bank für Handel und Industrie, capital £2,137,500; in 1856 the Mitteldeutsche Creditbank at Meiningen, £1,200,000; in 1856 the Berliner Handelsgesellschaft, £2,250,000. This rise of the banks coincided with the first industrial development.

Influence of the "crédit mobilier."

It coincided equally with a phenomenon which took place beyond the frontiers of Germany. It was then that, under the influence of Saint-Simonism, the formula of the "crédit mobilier" [1] appeared in France. The first German joint stock banks organised themselves on the model conceived and created by the Péreire brothers,[1] that is to say, they were from the beginning banks for loans to industry. (2)

This influence of the French example is incontestable. Abraham Oppenheim, one of the two founders of the Bank für Handel und Industrie (the Darmstädter Bank), was also one of the pioneers of mobile credit. In the bank's first circular (1853) it assumes the mission "of directing the spirit of enterprise and capital into the channels which correspond to the needs of the moment," of promoting enterprises,

[1] "Crédit mobilier"—Péreire brothers. Jacob-Emile Péreire, the famous French banker (1800–1875), founded (with his brother) in 1853 the Société de Crédit Mobilier—a company for the investment of capital in personal property. The Société was at one and the same time a company-partner of industry; a financing institution; a bank for the placing of loans, for borrowing and lending; and an issuing house.—M. E.

of influencing the condition of German industry, of fostering exportation. This is the actual language of Péreire.

This bank has played since 1854—and since 1855–6 jointly with the Disconto—a great rôle in this first industrial movement which, especially in Prussia, followed the shock of 1848; at first the creation of railways (to the German railways may be added the Austrian and Russian companies), then mines, salt pits, iron works, and also the development of secondary banks and insurance companies.

German banks, even before a united German State existed, were thus born as business banks.

They could be nothing else. Germany—or rather the Germanys—consisted in those days of poor States where moneys on deposit had little scope for circulation, and where a bank consecrated solely to deposit operations would not have been able to carry on business. It was only possible to attract deposits by assuring them of high interest—that is to say, by offering them the allurement of industrial profits. From that period, German economy, according to the very exact observation of M. Andre Liesse,(1) is marked with that trait which it will never succeed in effacing completely—too little circulating liquid capital in comparison with the immensity of the enterprises. Even the share capital of the banks mentioned above was only very partially subscribed; numbers of shares remained in the hands of the companies themselves.

Germany thus early acquired the habit of over-capitalisation. Another very just psychological observation of M. Liesse is that the scarcity of capital in circulation compelled the Germans at a very early date to mobilise wealth, but also accustomed them to paper.

"In this country (Germany) it is possible to issue paper money in abnormal conditions without arousing too much commotion. People have become used to it for a century." The Governments with their

"Pfandbriefe" had cleared the way for the banks. Mephistopheles had already said: "There will no longer be need to bother about stock exchanges and money bags; a little scrap of paper is easily placed in the bosom. . . ." (1)

Up to 1870 these banks lived a somewhat obscure existence. Beside the five institutions enumerated, one could mention the Hypotheken and Wechselbank in Bavaria, and in Mid-Germany a whole crop of "crédits mobiliers"—these, naturally, apart from the issuing banks which existed then in the majority of the States, and the private banks which continued to handle the wealth of well-to-do families. On the morrow of victory, when the indemnity of £200,000,000 poured into German circulation a mass of metal which was assuredly considerable, but which appeared colossal to the dazzled eyes of the Germans, the industrial rise began, and at first in disordered fashion. Suddenly the need for capital made itself felt. It was not possible to call on latent reserves, as in the countries of ancient economic culture. It was necessary to bring capital into existence, and very quickly. It was necessary to replace the factors of time and tradition by the money factor, to make industries rise suddenly out of the ground which would rival foreign industry, to procure for them a stock of raw materials, modern plant, and the means of launching their products afar. (2)

That is why the banks irrevocably renounced the patriarchal system of Frankfurt; that is why they outdistanced with one bound the still too complicated system of Paris and London, systems which were too slow in their somewhat antiquated mechanism. At the first onset they undertook a medley of operations: receiving available money as deposits, lending it to manufacturers and merchants in the form of credit, initiating and to a certain extent directing businesses. All of them could have taken for their programme this Article 2 of the statutes of the "Nationalbank"—

> "The object of the company is the exploitation of business of all kinds: banking in its true meaning, financial operations, credit, issues, industrial and estate business."

But if they live under this system of the blending of functions and the confusion of risks, if they are really, in Schaeffle's words, "allerlei Enterprisen," it is not by virtue of a preconceived theory. It is not because this system has appeared to them in itself preferable to others, or better adapted to the aims of national economy. It is because in the Imperial Germany of 1871–1875 they could not be otherwise. The German banks are daughters of necessity.

Formation and concentration of capital.

In England, in France, in old capitalist countries, nascent industry has found at its disposal a mass of dormant capital which only asked to be employed. The essential trait of the economic history of Germany is that Germany's *industrial evolution has marched more rapidly than the formation of capital.*

Theoretically, the absolute separation of deposit banks and business banks, practically complete in France and quite so in England, represents a higher stage of financial evolution. The German banks have been compelled to act before they reached this stage. They have been forced, between to-day and to-morrow, to lend themselves to the new requirements of their clientèle without troubling to respect the rules which experience had laid down elsewhere. It was not without risk, for if already in 1872 the capital of German banks exceeded £50,000,000, after the crisis of 1873 more than seventy banks, representing a share capital of over £21,500,000, were obliged to go into liquidation.

The German banks worked in the first instance to create and to concentrate capital. This capital they "attracted to themselves" by deposits. They opposed the creation of banks, which specialised in deposit

business, in the English fashion, because the accumulation of these deposits in their own coffers gave them a powerful means of operation. Nor have they feared to offer depositors 2 per cent. for three months deposits, and 3–4 per cent. for six months. It is true that even that is profitable; the total of the deposits is far from being entirely covered by specie or commercial paper; an important part of it is employed in credits, advances on securities, participations, etc. But we know that the German capitalist readily accepts the idea of this lesser fluidity, balanced as it is by higher returns.

The great banks profited from the very disasters which such an audacious policy was bound to bring. The ruin of local banks has served the large companies. Before the crisis of 1890–1, these latter, absorbed by their industrial business, only received a relatively limited total of deposits. The time came when the private bankers who had speculated with the money of their clients were not in a position to meet their engagements. Their clientèle streamed to the great companies which had revealed themselves as more solid, and which thus found themselves forced into the business of deposits. (1) This increase of power permitted them to participate in the industrial revival of 1891–1900.

But the crisis of 1901 had for these banks consequences even more fruitful; it was really, according to the German expression, a crisis of cleansing, of purification—"Reinigung," "Sanierung." The resounding crash of the Leipziger Bank, those of the Crédit Mobilier of Dresden, and of the secondary establishments swept away in the storm, equally profited those powerful institutions which had survived. From 1899 to 1904 the sum of deposits and credit accounts of the nine largest banks rose from £68,000,000 to £125,150,000. These institutions absorbed the banks which were too feeble—the Deutsche Bank swallowed up forty-nine of them, the Disconto twenty-eight, and the Dresdner forty-one. (2).

In some cases the great banks simply annexed those institutions which were previously autonomous, and took over the business of menaced establishments, converting them into branches. More often they allowed them to continue in existence for form's sake, contenting themselves with financing them, or perhaps acquiring a sufficiently large number of shares in these concerns to assume their effective control. Sometimes, also, in order to study appearances still more, an exchange of shares was the medium employed; the absorbing bank and the bank absorbed reciprocally delegated their directors from one board to the other.(1)

Groups of banks. With these banks they formed groups. As the banks thus absorbed or mediatised had themselves in most cases arrived at a certain stage of concentration, as they had their branches and daughter institutions, it followed that groups of groups, formidable unions, were formed. When the Deutsche Bank by means of an exchange of shares made itself master of the Bergisch-Märkische Bank of Elberfeld in 1897, the latter had already thirteen branches, having successively absorbed half a score of Rhenish banks. A whole block of concerns thus passed into the control of the great Berlin bank at one stroke.

To achieve transformations of this magnitude enormous augmentations of capital were necessary; that of the Deutsche Bank rose in two years from £1,000,000 to £9,000,000 and in the following year to £10,000,000. This total was also in 1911 that of the Dresdner and the Disconto. The Darmstädter capital reached £8,000,000, the Schaafhausen £7,250,000, the Berliner Handelsgesellschaft £5,500,000—a total of more than £50,000,000 for the six institutions. Some provincial banks, the Rheinisch-Westfälische Discontogesellschaft and the Rheinische Credit Bank, each with £4,750,000, exceeded the other metropolitan banks such as the Nationalbank, the Commerz und Disconto Bank, etc. Banks whose capital in each case

exceeded £3,000,000 represented a total capital of £87,250,000.

But side by side with the actual power of each bank, it is necessary to consider that of the group which it directs. By the absorption or the affiliation of the Bergisch-Märkische, the Schlesischer Bankverein of Breslau, the Hannoversche Bank, the Mecklenburger Hypotheken und Wechselbank, and the Essener Creditanstalt, the Deutsche Bank has attained the position of controlling in reality a total capital of £34,550,000, or of £48,950,000 with the reserves.

The Disconto (with the Norddeutsche Bank of Hamburg, the Allgemein-Deutscher Creditanstalt of Leipzig, the Barmer Bankverein, the Süddeutsche Discontogesellschaft of Mannheim, and the Bayerische Disconto und Wechslerbank of Nuremberg) controls £25,200,000—with reserves £33,100,000. The Dresdner controls the Markische Bank of Bochum, the Rheinische of Essen, and the Mülheimer Bank, £12,650,000 and £16,150,000. The Darmstädter represents £10,950,000 and £13,000,000; the Schaafhausen (principal satellite the Mittelrheinische Bank of Coblenz) £8,600,000 and £10,450,000. In all, the share capital and reserves of these groups represent a total of £137,500,000. (1)

At times banks pass from one group to another, for there exists among the controlling houses of the banking groups a spirit of emulation and rivalry which drives them to absorb as many concerns as possible. It was in consequence of a struggle between the Deutsche Bank and the Dresdner for the domination of Westphalian industry that the former absorbed the Bergisch-Märkische. The Dresdner in its turn nearly absorbed the ancient Schaafhausen Bank; and on the eve of war the Disconto was trying to make similar conquests.

"Communities of interest."

By the side of these rivalries we find ententes. The great banks sometimes form among themselves "Interessen-gemeinschaften"—communities of interest—

"species of banking cartels which concentrate formidable amounts of capital to one definite activity" —maybe for the exploitation of a particular industry, or perhaps for the creation and the management of a secondary bank. At times also this community of interest unites two banks of secondary rank. Thus we read in the financial announcements in the German newspapers: "Interessen gemeinschaft: Rheinische Creditbank Mannheim—Pfälzische Bank, Ludwigshafen"—not a "consortium" for a pre-determined transaction, but a permanent alliance.

Rôle of the Reichsbank. Thanks to these alliances, to their branches and their partnerships, the five or six great controlling banks represent an enormous force.

This force has again been disciplined and organised in consequence of the growing rôle of the Reichsbank. For political reasons, after each of the international crises of 1905, 1908 and 1911, the great central establishment was invested with new attributes, charged with a kind of dictatorship over the generality of the German banks, and this dictatorship has chiefly served to drive the banks to increase the sum of their deposits and to make their resources more liquid. It was mainly in view of the war, to facilitate the financial mobilisation, that these measures were taken. (1) But in peace times they resulted in still further increasing the power of German finance and in making the concentration closer.

The advantages of this concentration, which terminates almost in unity of control, have been enumerated by Riesser ("Grossbanken," p. 614). The great banks are able to elaborate programmes for joint action. United by a kind of quasi-contract, forming practically a tacit syndicate, they are able to raise themselves above the mere policy of dividends, to keep count of interests both general and national, to adopt an industrial policy, to direct the placing of capital, colonial under-

takings and the business of exportation, canals, navigation, and cables. They are able to exercise control of the Press and of public opinion, to anticipate crises and weaken their effect, to prevent panic. Thanks to the "entente" between the State and a small number of banks which have their headquarters or (as in the case of the Darmstädter and the Dresdner) their centre of gravity at Berlin, intervention becomes rapid and efficacious.

Participation of the banks in trade and industry.

German wealth is thus constantly in a state of financial mobilisation, constantly placed at the disposal of credit. One will gain a first idea of the difference between the policy of the German banks and that of the French from the following figures. In 1913 the business of the nine chief German banks reached a figure to all intents and purposes equal to that of our five great credit establishments; but while the French group had in its portfolios £20,000,000 of commercial paper more than the German group, the latter held, in credits, loans, advances, etc., £48,000,000 more than the French. (1)

To say that these banks have been the most powerful instruments of the German expansion is to use mere words while we have not studied the mechanism of the penetration of the bank into industry and trade. These latter had, it has been said, "to some extent cornered the banks"; the banks "in their turn cornered trade and industry."(2) This was effected in three ways: by the issue of industrial shares, by the granting of credit to manufacturers and merchants or to joint stock companies, and by participating in business themselves.

Issues.

German banks are terribly prolific issuers of paper. (3) From 1885 to 1900 they have thrown on the German market securities for more than £1,200,000,000. The Deutsche Bank alone made ten

industrial issues in 1895, twenty-five in 1900, forty in 1904, forty-five in 1905, fifty-eight in 1907, and forty-seven in 1910. Its great rival, the Disconto, launched fifteen in 1895, twenty-six in 1900, thirty in 1906, and twenty-five in 1910. This latter figure in the last year was also that of the Darmstädter, while the Schaafhausen reached fifty in 1899.

The banks have their specialities; in the case of the Disconto it is foreign railways, and of the Deutsche electricity; the Darmstädter interests itself in narrow-gauge railways and breweries; the Berliner Handelsgesellschaft at once in electricity, narrow-gauge railways, and large metallurgical enterprises. These issues placed industrial shares of £125,000 already in 1892, rising to £1,700,000 in 1893, £7,150,000 in 1895, £10,800,000 in 1896, and £23,050,000 in 1900. After 1901 (with only £7,750,000) the rise is resumed to reach £32,850,000 in 1906 and to remain since then round about £25,000,000 annually. Add to this debentures of five to fifteen millions each year, and think with what difficulty an industrial business in France is able to obtain the backing of a credit institution.

The banks have thus rendered possible the growth of existing businesses, the conversion of private enterprises into public companies, and the fusions of companies, such as those combinations of iron works and coal mines which have facilitated the application of the Thomas process.

Credit. But as regards issues there are only differences of degree between German banks and their foreign competitors. With credit we enter into a new world, and there is here, as an Italian publicist has said so neatly, "enough to make the hair of the conservative banking community stand on end." (1)

Let us examine matters *ab ovo*, and in the domain of the little trader and manufacturer. (2) A small French trader who has need of credit will not obtain

it except on actual security—documents or commercial paper—which he will have deposited at the bank. His German rival will turn to his banker, and will offer him, beside or in default of actual securities, personal guarantees—his capacity, his chances of success. The banker, before committing himself, consults a technical man on the value of the business, examines the merchant's books, inquires about his clientèle. If the inquiry is favourable, he opens for him a credit account, small at first, say of some hundreds of pounds. If he has money available he gives it to him. If not, he authorises his client to draw a bill *on the bank*. This paper, by reason of the banker's acceptance, becomes negotiable—it is even negotiable abroad if the bank is known. Thus we find that a French merchant, to whom the French banks have refused credit, will find it in Germany; and the bill on the German bank will be discounted by those same French banks which had in the first instance refused the merchant! (1). The profits of the transaction have moreover passed into German hands.

From the moment the banker has opened his credit, he follows the merchant, interests himself in his business, becomes in reality his partner. If he sees that the client has not the value which he had attributed to him, he gets rid of him. If not, he increases his credit from year to year, always insured against risks, thanks to the obligatory production of books and accounts.

For large credits he exacts higher rates than his French colleagues. In addition, he participates in the business profits. But in critical periods he also comes to the aid of his client. Thanks to his own sources of information, he helps him to do business. Such a German banker makes offers to foreign houses solely in order to learn their ways of manufacture and their clientèle and then to transmit this information to his own clients.

That which happens in the case of joint stock companies is exactly, on a large scale, what happens with the little trader. (1) In the latter, as in the former, we find the distinction between covered credit (gedeckter Kredit) and uncovered or blank credit (ungedeckter, Blanco-Kredit). Uncovered credit, which is more prevalent in South and Central Germany than in the North, is considered as an exception, at least for large sums, but this exception is not negligible. For a branch of a large bank, whose accounts M. Millioud has seen, the annual total of credits granted amounts to £415,250 of which £334,650 is covered and £80,600 is uncovered—say a quarter. To the credits which are, properly speaking, uncovered must be added long-term credits, credits on securities which foreign banks would judge insufficient, etc.

In the case of companies no more than of individuals do the banks grant these facilities without making serious preliminary inquiries, and without assuring themselves of the means of following the progress of the business. Let us open, for instance, the correspondence of a large German overseas bank—we find that to one firm, whose capital is considerably above £10,000, the bank has made an uncovered credit of £500 for three and a half months at 10 per cent. In another case, capital £10,000, it has only advanced £100 for three months at 10 per cent. plus ½ per cent. commission. In yet a third case, capital £8000, it has gone up to £200, three months, 10 per cent. plus ½ per cent. These differences of treatment show with what care the various cases are studied. Account is taken of the liabilities, mortgage guarantees, etc. A firm at Valdivia, say, will receive the considerable advance of £4000 for three months at 10 per cent. plus ¼ per cent. commission, because in addition to its capital of £57,860 it represents a partnership in joint names to the extent of £46,887, and has £4000 in current accounts. Another firm will obtain, under the same conditions and charges, up to £20,000, because its

capital is £112,370, because it has various guarantees for £30,698 and has £10,000 in current accounts. (1)

Participations and partnerships.

It is in this way—by the need for being informed—that the banks are led to take part in the actual working of enterprises. This begins at the moment of the public issue. For this operation the bank does not play the simple rôle of cashier. It takes a part, very often considerable, of the shares, and it does not hasten to pass them on to the public. Particularly when it has helped to re-establish a compromised company, it secures representation on the board, not by a decorative personality, but by a technical man or a financier, who sees the books, who follows from the inside the course of the business. (2) Inversely, captains of industry have their places in the councils of banks. There is thus an intimate association between the bank and the factory, and in this way permanent control is exercised on industry by the bank.

And so the bank is also very exactly and very accurately informed about the businesses it patronises. When a company asks for an increase of capital, the bank knows whether to give help in the matter. It is able to put pressure on the debtor concern—it may make it "enter—at times against its will—into business relations with such and such a client of this or that establishment." (3) The bank can force the company, "notwithstanding its personal preferences, to adhere to a cartel." This dependence, at least in certain industries, is so complete that at the congress of banks held at Munich in 1912 it could be said, almost without much exaggeration, "that the administrators of the banks were the real directors of German industry."

This state of affairs does not date from yesterday, and it must also be said that the banks' first efforts in this direction were not happy. (4) In 1872 the Disconto suffered heavy losses from the foundation

of the Dortmunder Union; it was not more fortunate in 1890 with the company of Popp, and then with the Venezuelan railways. The Dresdner lost £125,000 by participating with the Anglo-Deutsche Bank in the creation of an export company. The Deutsche Bank was at first unsuccessful in 1890 with the Germano-Austrian Mannesmann works. The Berliner Handelsgesellschaft, which had, since 1873, dissipated part of its capital in participations, burnt its fingers in 1880 in local railways and petrol-boring ventures.

These accidents—punishments for a policy contrary to the rules of healthy banking activity (1)—did not discourage the large establishments. They have simply led them to apply to their industrial participations the principle—already tried in the financial arena—of grouping.

At first they grouped enterprises in such a way as to divide their risks. At the present moment each of the great banks is the financial soul of a whole "ensemble" of undertakings. Thus the Deutsche Bank has in direct dependence Siemens und Halske, the Norddeutscher Lloyd, the Gesellschaft für electriche Hoch und Undergrundbahnen, and the Oberschlesische Kokswerke. The Disconto finances Gelsenkirchen, the Dortmunder Union, the Kaliwerken Aschersleben, Ludwig Löwe, the Hamburg-Amerika, the Bochumer Verein, and the Kattowitzer Actiengesellschaft. Under the Dresdner there are, among others, Saar und Mosel and Laurahütte; under the Berliner Handelsgesellschaft, the Harpener, the Hibernia and the A.E.G., etc. The Schaafhausen finances Aumetz and Saint Avold, the Darmstädter, the Luxemburg mines, etc.

But the principle of grouping applies also in the sense that several banks unite in patronising one enterprise. Kattowitz depends at the same time on the Disconto and the Dresdner, Harpener on the Berliner and the Schaafhausen. This concentration has become operative particularly in the electrical industry, where

the need for capital is considerable and frequent. In 1900 the twenty-eight electricity companies were divided into seven groups, and behind each industrial group stood a group of banks; for instance, at the back of Siemens und Halske there were the Deutsche Bank, the Darmstädter, the Berliner, the Disconto, the Dresdner, the Mitteldeutsche, Bleichröder, etc. By the support of the banks these seven groups have been reduced till there are in reality only two. (1)

How are these groupings of banks effected? By artificial and dangerous methods which German finance considers normal, but which the financiers in countries of the older economic school consider "bluff." The banks concentrated in and united to undertakings "agree among themselves mutually to accept their paper." In each great bank there operates a "Consortial Bureau," where secret arrangements are negotiated under the cloak of apparent rivalry—"mystery of acceptances, of combines, and of unions between colossal powers. The paper of the one is, in short, guaranteed by the paper of the other." (2)

In Germany, even, there are not lacking persons clear-sighted enough to denounce this policy founded—in the final analysis—on public confidence and prestige. (3) But while confidence lasts, while prestige rules, there is no doubt that this policy gives German industry a prodigious power of production.

It is in effect hardly a paradox to say, with Bagehot, (4) that the modern merchant, precisely because he has recourse largely to credit, possesses an immense advantage in the industrial struggle over his competitor who operates with his own capital. It is evident, however, that this advantage cannot be a lasting one. If a "credit crisis" supervenes, prosperity may be converted into catastrophe.

But, during the years of growth, the merchant or the manufacturer who works with borrowed money has been able to produce more and to sell more cheaply than the merchant or the manufacturer of the ancient

type—that is to say, the Frenchman or even the Englishman.

The banks and exportation.

This policy is thus of very efficacious assistance to industry's needs for expansion.

"The object of the society," said the statutes of the Deutsche Bank in 1869, "is the exploitation of banking business of all kinds, in particular to promote and facilitate commercial relations between Germany, other European countries and oversea markets." (1)

How was this programme to be carried out?

International exchange and German money.

The incipient German exportation found itself faced by a world placed under the financial domination of England. As London was the international centre of exchange, the Hamburg exporter had recourse, especially in oversea trade, to the English intermediary (and in lesser degree to the French), buying and paying by bills on London. The fact that Germany had neither a gold standard nor monetary unity, and the additional fact that the principal German exporting town was outside the German Customs Union, contributed to maintain this situation. The memorandum of July 1869 which preceded the foundation of the Deutsche Bank read: "Notwithstanding the importance of the great oversea markets to German industry, the very extensive traffic of merchandise between Germany and other parts of the world passes almost exclusively through English hands, because Germany lacks an institution which might be able to procure access to oversea markets for German bills."

The new bank wished to be this institution. The most urgent necessity was to provide German importers and exporters with credit on London. She therefore first established an agency in London, which was soon replaced by a participation in the German Bank of

London. The type was now found from which later were to be cast so many replicas—the foreign branch of a German bank.

The mother bank did not stop there. On the morrow of victory, proud of the adoption in the Empire of the gold standard and the general acceptance of the mark, she dreamed prematurely of making German commercial paper an instrument of international payment. In 1872 she opened branches at Yokohama and Shanghai which bought bills on Germany. But in 1874 these branches had to close, in consequence of the depreciation of the silver piastre. The same causes put an end to the La Plata Bank, which, founded (also in 1872) by the Disconto, and re-opened in 1874 by the Deutsche, was obliged to liquidate in 1885.

The problem was moreover very complicated. Up to 1888 the free town of Hamburg, politically reunited to the Empire, remained nevertheless outside the Zollverein, and "Hamburg egoism" preferred the more advantageous bills on London to those on Berlin. The activity of the Deutsche Bank was regarded with little favour in the financial world. These set-backs were triumphed over. The doubling of the capital to which it had proceeded in 1871 had been considered inopportune "even if it were true that the bank wished to acquire interests among the Riff pirates, the Kaffirs, and the Blackfeet Indians." Who imagined then that Germany would one day interest herself passionately in Morocco and South Africa?

The Deutsche Bank did not allow itself to be discouraged. It had created in 1871 at Bremen, and in 1872 at Hamburg, branches for oversea commerce. It had in 1873 set up its own agency in London. Here the first stage was left behind; its clients were able to obtain at their choice marks on Berlin, Hamburg or Bremen, or pounds sterling on London. German paper may well be the dearer—it does not matter, for it is to-day an "idée fixe" among all German banks

to conquer for the imperial mark, for the "deutsche Valuta," its place in the sun. The creation since 1894 of numerous oversea banks has considerably improved the situation of German letters of credit. And at this very moment the present war appears to the German banks a means of imposing this medium of payment on their oversea clientèle. (1)

Oversea banks. Encouraged by the example set by one of their number, all the German banks, after the manner of bees, applied themselves to swarm. They adopted for this action beyond the frontiers the same principles as for their action in Germany itself—few branches in the correct sense, many branches more or less recognisable, from authentic Töchterbanken (daughter banks) to establishments of independent appearance, the councils of administration of which are in fact directed by the delegates from Berlin or Darmstädt. It is necessary to form a mental picture of this network of banks and to distinguish at least the essential outlines.

In 1886 the Deutsche Bank replaced the La Plata Bank by a Deutsche Ueberseebank with a capital of £300,000; at a very early period the latter renounced the ambitious general formula of an "overseas bank" in order to specialise in a definite geographical area (2) —South America. In 1893 it was absorbed by the Deutsche Ueberseeische Bank, with a capital of £1,000,000 (increased in 1909 to £1,500,000). The change of title—"banque ultramarine" instead of "banque outre-mer"—indicates the new point of view. Installed at Buenos Ayres under the style of the Banco Alemán Transatlantico, it has more than twenty branches in the Argentine, in Chile, Peru, Bolivia, Uruguay, and even at Rio, where it calls itself the Banco Alemão Trasatlantico. The Mexican branch was transformed in 1906 into the Mexikanische Bank für Handel und Industrie. (3)

The most curious fact is that the Banco Alemán

reacts on Spain from the Spanish countries of the New World. There existed already in Madrid a Zimmermann Bank, which contained among its employees Gwinner —one of the future directors of the Deutsche Bank— and Vogel. From this sprang the bank Guillermo Vogel y Compania, taken into partnership by the Deutsche Bank in 1895, then transformed into the Banco Español Alemán, and finally absorbed in 1906 in the Barcelona and Madrid branches of the Banco Alemán Transatlantico! A strange "choc en retour" for the economic conquest! (1)

The Deutsche Bank has thus played an eminent rôle in this history of the diffusion of German banks in foreign countries. (2) The history of the Madrid Bank was partly repeated at Brussels, where the Brugmann Bank, afterwards the Balzer Bank, was also absorbed by the Deutsche. The Disconto at first showed far more reserve, and had itself represented at Hamburg by the Norddeutsche Bank. Only in 1890 did it acquire interests in the banking house of Ernesto Tornquist, at Buenos Ayres, and the firm of Albert de Bary & Co., at Antwerp, which became in 1900 the Compagnie Commerciale Belge. In 1900 it created a branch in London, and in 1903 one at Bremen. The Dresdner, which was far more active, had branches at Hamburg from 1892, at Bremen from 1895, and at London from 1901, while in 1910 it acquired a large part of the shares of the Allard Bank of Paris. The Darmstädter, after unsuccessful attempts at Paris, (3) financed the Mercur of Vienna from 1860, with which it is still in close relationship. In 1871 it created the Amsterdamsche Bank, and in 1877 the Ungarische Escompte und Wechslerbank of Budapest. (4) It represents German capital in the Crédit Anversois.

Banca Commerciale Italiana.

But it is chiefly by the procedure of grouping that the banks act powerfully abroad and overseas. Their most remarkable creation of this kind is the famous

Banca Commerciale Italiana, founded in Milan in 1894, thanks to the co-operation of the Deutsche, Disconto, Dresdner, Berliner Handelsgesellschaft, and the Schaafhausen. (1) At the hour when, in consequence of political tension, French finance abandoned Italy, the Banca Commerciale proceeded to make of the peninsula an economic vassal of the Empire. Thanks to a skilful composition of the administrative council, the bank found itself in strict dependence on the great German banks, and Italian publicists have explained how it sapped, little by little, all the resources of the country, financial, industrial, commercial, and even political.

This example is too notorious and too well known to warrant discussion here. We shall, moreover, have to return to it in regard to German industrial penetration into Italy.

The Orient Bank. Not less characteristic is the history of the Orient Bank. Here the problem was to defeat, in their own domain, the French and English banks—the Banque Ottomane, the Bank of Athens, and the National Bank of Egypt. It was also essential not to repeat the experience of the Palästina-bank, which languished for lack of sustenance; it was necessary to establish at one stroke a creation that was solid and likely to live. (2)

From the collaboration of the Nationalbank of Berlin and the National Bank of Greece there was created in 1905 the Orient Bank, with a capital of £400,000, having headquarters at Athens and branches at Constantinople, Salonica, Smyrna, Alexandria, and —Hamburg. By one of those alliances which were to become numerous and fruitful, between banks and other instruments of German expansion abroad, a shipping company, the Deutsche Levant Linie, placed at the disposal of the newly-born bank its organisation, its agencies, and its information.

A conflict with the National Bank of Greece caused almost complete failure, but ended in agreement be-

tween the two Athenian establishments and the Nationalbank. In 1906 the latter appealed to the participation of the Dresdner and the Schaafhausen to create in Berlin a far more powerful Deutsche Orient Bank, the new branches of which were installed at Adana, Adrianople, Aleppo, Brusa, Damanhour, Dedeagatch, Cairo, Mansourah, Mersina, Minieh, Tantah, in Persia, (1) and—as we learned to our cost—even at Casablanca and Tangiers.

In the same way the Disconto and Bleichröder conquered Roumania, where no great credit establishments existed before 1897, the date of the creation of the Banca Generala Romana. (2) It was also with Bleichröder, the Nationalbank, and certain Bulgarian houses that the Disconto created in 1905 the Kreditna Banka of Sofia, as, with other German and foreign houses, it had created in 1898 the Banque Internationale de Bruxelles. From 1887 it had become associated with the Nationalbank in the foundation of the Brasilianische Bank für Deutschland, which resumed the heritage of the unfortunate Deutsche Brasilianische Bank, with headquarters at Hamburg, and five Brazilian branches. In 1889 the Disconto joined six other banks to bring into existence the powerful Deutsche Asiatische Bank. It will be recalled that the first German attempt in the Far East had been unfortunate. But this latter institution, with its £750,000, its establishments at Calcutta, Shanghai, and Tientsin, became a power and was able to secure from 1898 the service of the Chinese loan of £20,000,000.

We should never finish if we wished only to enumerate all these German banks outside Germany—the Bank für Chile und Deutschland at Valparaiso, the Deutsch-Ostafrika Bank at Berlin, with a branch at Dar-es-Salaam, the Deutsche Südamerikanische Bank, etc., etc.

The German bank is found everywhere, even when it calls itself "Italiana" at Milan, "Internationale" at Brussels, (3) "Anversoise" in Flanders, or "Liége-

oise" in the Walloon country; (1) even when it is entitled the Schweizerischer Bankverein (2) or Schweizerische Creditanstalt. Is it not alleged that such Parisian establishments as the Banque de Paris et des Pays-Bas (3) or the Banque Franco-Italienne de l'Amérique du Sud are branches of the Banca Commerciale Italiana, and in consequence sub-branches of the German combine which directs the Milanese institution? It is, in fact, a spider's web which spreads over the financial world.

Banks and export industries.

"Every bank created abroad," as Siemens has said, "is the pioneer of national industry and the initial step in uninterrupted relations between the foreign country in question and Germany." (4) It remains for us to see how the bank understands and practises this rôle of "pioneer of national industry."

The bank understands it from the first in the narrowest sense, because it interests itself directly—outside Germany as we have seen it do in Germany—in industrial enterprises. Besides the banks formed or supported by them in a determined geographical area, the great institutions create others whose special mission is to "finance" certain categories of business, such as the Bank für Elektrische Unternehmungen of Zurich. (5)

Bank of Oriental railways.

It was at Zurich, for the purpose of launching the Anatolian railways, that the Deutsche Bank and its partners created in 1890 the Bank für Orientalische Eisenbahnen. (6) The case of the Oriental railways is an excellent one to show to what extent the banks are conjointly answerable for the industrial and commercial action of Germany in foreign countries. In 1889 the Deutsche Bank, the Dresdner, and others founded with a capital of £1,800,000 (later £2,400,000) the Société du chemin de fer ottoman d'Anatolie,

which constructed in 1892 the line Haidar Pacha-Ismid. In 1889 again, with the collaboration of the Wiener Bank, the Deutsche bought the shares of the Betriebsgesellschaft der Orientalischen Eisenbahnen (founded by Baron Hirsch in 1875), and obtained from the Württembergische Vereinsbank the cession of the Salonica-Monastir line, whence followed in 1891 the creation at Constantinople of a Société du chemin de fer ottoman Salonique-Monastir. It was the Deutsche Bank, through the agency of its Zurich branch, which in 1896 obtained control of the line Ismid-Koniah, and then in 1901, Koniah-Bagdad-Persian Gulf. It was this bank which in 1903, with German, Turkish, Austrian and even French co-operation, founded the famous Kaiserliche Ottomanische Gesellschaft der Bagdadbahn. (1)

This activity reveals itself everywhere. At the same time as they participate in banking creations destined to promote industrial business, the banks take a direct part in industrial creations abroad. We discover the Deutsche Bank in telegraphs and cables, (2) while in China we find it in mining enterprises and Shantung railways. (3) With the Deutsche Ueberseeische Bank, the house of Speyer-Ellissen of New York, and the Schweizerischer Creditanstalt, it had created in 1905 at Berlin a Central Amerika Bank, destined for the exploitation of Guatemala. As the business did not succeed in the form of a bank, the creators did not hesitate to convert it into a construction company. (4) The Berliner participated in several such transactions; it created the Compania Sevillana de Electricidad and that of Barcelona, then the Aluminium Industrie Actiengesellschaft of Neuhausen, and finally the Deutsche Ueberseeische Elektrizitätsgesellschaft. The Disconto, interested equally in cables and in Shantung affairs, busied itself in 1905 in the General Mining and Finance Corporation, founded in London by the Dresdner and the Albu brothers, and in 1906 in the Kamerun Eisenbahnengesellschaft.

By the side of the genealogy of mother, daughter and granddaughter banks, it would be necessary to prepare another table of descent—that of undertakings which have issued from a bank or from the marriage of several banks.

The bank and export credit.

We shall have occasion, on the subject of industrial penetration abroad, to return to this mode of action—to show, for example, how the Banca Commerciale Italiana succeeded in reducing Italian industry to a state of bondage. To limit ourselves for the moment to the exportation of products which are, properly speaking, German, what measures do the banks—German or oversea-German—take to favour German exporters? In this matter also it will be necessary to look beyond mere words, to study the "wheels within wheels" of the machine. (1)

In the first instance, the German banks are on the spot. It is not for nothing that a consular report of 1914 points out the absence of French banks as one of the causes of the stagnation of our commerce at Rio de Janeiro, and adds: "There exist at Rio three German banks who support their compatriots, facilitate their business, and form a valuable aid to German trade." It is not for nothing that both Argentines and Frenchmen established in the Argentine tell us that at Buenos Ayres—in face of an obscure French bank and of the Banque Franco-Italienne—only the haughty Banco Alemán Transatlantico is capable of competing in prestige with the famous Banca de Londres. (2)

The oversea banks supply the German importer and exporter with credit. Our dissertations in France on the advantages of long-term credit have perhaps been overdone; we will come back to that. But it remains a fact that for many countries our terms of ninety days and even six months are too short. In agricultural countries, such as Roumania, Serbia, and even Russia,

the term of payment is, according to the nature of things, the date when the crop will have been sold. To this physiocratic necessity, so to say, are added psychological reasons: in countries which are young, and of somewhat rudimentary culture, the peoples, greedy of cheap luxury, allow themselves to be persuaded that an article is all the less dear as the date on which it must be paid for becomes more distant. (1)

But it is obvious that the German manufacturer, no more than his French or English congener, would not be in a position to await the payment of his invoices during many months, because he himself must meet his terms of payment, which are, generally speaking, at ninety days. Here is where the bill issued by a German bank abroad comes to his rescue. This bill may be issued against a bill of lading or against any other documents confirming the genuineness of the business concluded by the exporter. "The German merchant, provided with such a bill, *made out for any maturity whatever*, always finds in his country some bank which will consent to discount it for him." (2) This procedure is not without danger. But, as M. de Ribes-Christofle remarks, (3) the inconveniences to the banks of long credits are reduced to little, thanks to the existence of their numerous branches, which are at the same time information agencies. We have already had occasion to mention, and we shall have need to repeat, to what state of perfection the Germans have carried the service of commercial information. They have applied to this the methods of philology and of history; in every establishment each actual or potential client has his index card on which are noted from day to day the variations which may occur in the commercial situation. The branch banks at Montevideo or at Santos are thus able in a moment to know what degree of confidence may be accorded to such and such a merchant, to value the risk, and, if the security seems to them sufficient, to anticipate payments.

German capital abroad.

The existence of this network of banks gives another advantage—that of draining capital towards Germany.

That may seem paradoxical. Generally speaking, when a rich country implants its financial domination on a new country, it is compelled to invest capital in it. Germany, who employed everything at her disposal in her own industry, who suffered from the rising cost of living, who experienced difficulties in getting her stocks and shares quoted on foreign stock exchanges —this Germany has effected the surprising *tour de force* of securing her financial supremacy in certain countries while "locking up" very little capital.

When we say that the Banca Commerciale Italiana is a German bank, our first thought is that German capital is preponderatingly large—which is a complete error. Of the £5,200,000 of share capital the Austro-German holders did not own as much as £180,000 in 1914, but, thanks to the marvellous discipline of these shareholders, it proved to be enough for them always to form the majority at general meetings, it was enough for the directors, influential members of the board, and the greater part of the staff to be German, ruling the French, English and Italian capital which was lured into the business to the profit of Germany. We shall see that the same thing happens in industrial concerns. Only yesterday, in this Italy which seemed to us under the financial yoke of Germany, M. Fr. Nitti showed how small a portion of the capital is German : £1,120,000 against £20,000,000 of foreign capital ! (1)

German capital is in a minority in the Crédit Anversois. But while Belgian, French and other capital fights with scattered forces, the German capital, all grouped in the powerful hand of the Darmstädter, has secured a preponderating part in the management of the institution. "Thus it is solely by its banking organisation that Germany has been able to achieve an immense task, with practically no capital." (2)

It is worth while to penetrate this mystery, to see

by what stages proceeds this conquest of foreign banks (and generally of businesses) by German capital which becomes more and more limited. Not all at once is this paradoxical result attained: the assurance of the effective control of the business with a very small stake. (1)

In 1895, for instance, the Austro-Germans held 29,711 shares in the Commerciale against 6814 shares in Italy and 6814 in Switzerland. At that time, therefore, it was lawful for the Germans to compose the administrative council according to their will. In 1898 the Austro-German shares already totalled no more than 11,366, compared with 43,397 in Italian hands. In 1914, as against 7411 Austro-German shares, they were 195,544 Italian, 64,097 Swiss and 42,922 French.

Little by little, following an almost constantly decreasing curve, German capital has left the Commerciale. But the council, constituted during the period of German preponderance, has scarcely been modified, nor the management, nor the social staff. This has all remained German. As to the capital liberated by the cession of shares to other groups, it has been possible to transfer it elsewhere (like a regiment conveyed from one front to another) in order to favour an operation of the same kind.

The installation of branches, especially those disguised as national banks, results in attracting capital to Germany in more than one way. In the balance-sheets a book-keeping manœuvre enables the dividends of the daughter-bank to be decreased to the profit of the mother-establishment, to divert to the latter the greater part of the profits. On the other hand, the branch is able to slip into the portfolios of its clients, who are anxious for fat revenues, German stocks which are not quoted on the local exchanges.

The branch—and behind it the mother-bank or the banking group on which it depends—becomes the obligatory intermediary of the State in which it is

established when that country requires to have recourse to credit. But thanks to a perfect understanding between finance, industry, and the Empire, the loans made to a foreign country form a currency which is repaid not only in political services, but in orders for goods. There is a "union between the general policy and the policy of the banks" (1)—we may add, between the policy of the banks and the policy of the cartels (combines). This will be seen in the pages which follow.

Another means of attraction employed by the banks is the diffusion of German insurances abroad. (2) The advantage gained is not only to diminish the risks by extending and diversifying the field of action of the German companies; but the German companies are obliged, unless local law demands from them special guarantees, to place all their reserves in German securities.

In Switzerland, for instance, where insurance to the extent of more than £16,400,000 is effected in German companies, providing annual premiums of more than £640,000, reserves and premiums make their way to Germany. "It is a veritable exodus of capital, which can only be harmful to the economic prosperity of the Confederation," and serve to enrich the neighbouring Empire. (3)

It is evidently of no use to wish to explain the sum total of German expansion only by the organisation of the banks. "Not the banks, but elementary economic reasons have brought about the industrialisation of Germany with irresistible force." (4) If that transformation has taken place too rapidly, the banks are largely responsible for this feverish pace.

The historian of the German banks, Riesser, does not hesitate, notwithstanding his admiration for the task accomplished, to bring this reproach. He considers that they have been wanting in a coherent doctrine as regards credit. They have not always granted long-

term credits at the right moment; while, on the other hand, they have sometimes done so when already the symptoms of an approaching crisis should have caused them to exercise prudence.

In particular, before the crisis of 1901, the banks increased, instead of trying to assuage, the fever of construction, of factory extensions, and of the creation of new enterprises which all but led industrial Germany to ruin. They have not applied the principle of the division of risks; they have granted too much credit to an industry or to a branch of industries: it was thus that the Leipziger Bank, engaged in an almost exclusive manner in the company for the drying of brewers' grains, could not help being brought down with it, and also involving in the catastrophe the banks with which it was connected.

This absence of the division of risks was all the more serious as these banks were at one and the same time, as we have shown, deposit banks and business banks.

It was German thrift, to be definite, that was thus turned by the banks into the torrent of industrial circulation. German savings, then, bore the risk of "paying the piper" of these colossal and at times disastrous enterprises.

One may even ask oneself how the German banks would have succeeded in overcoming certain crises if the financial policy of French credit institutions had not intervened, just in time, to enable them to face the storm. It was French thrift that more than once saved the imperilled German savings.

This state of affairs, so brilliant in appearance, was liable to become extremely dangerous. The great organ of the commercial middle classes beyond the Rhine, the *Frankfurter Zeitung* (1901, quoted by Depitre, p. 109), agreed with Riesser in denouncing the indiscretions committed by the banks. It was to their excessive credits, "to their custom of granting credit with open hands without always inquiring sufficiently whether it was justified, that must be

attributed the in some respects unhealthy rise of our industry."

Nevertheless, it is certain that, unhealthy or not, and even because it was excessive, the policy of extreme industrialisation practised by the banks forced Germany to export, and for this exportation these same banks supplied efficacious means of action. (1)

CHAPTER II

CARTELS AND DUMPING

THE syndical organisation of the German industries is generally held to be one of the most powerful causes of the development of German exportation. (1) "It is evident that Germany owes the conquest of foreign markets in large measure to the cartels," writes Fritz-Diepenhorst in the *Revue Economique Internationale* (1914, II, p. 259).

We believe this view to be justified. But we ask ourselves whether we in France form a true estimate of what these cartels are, of the conditions under which they are created, of the causes which have converted them into instruments of expansion, and finally of the net cost of the system.

What the German cartels are.

To say that the cartel is a form of industrial concentration is to say nothing very precise, for the trust is also a form of concentration. But while the trust is the absorption of a whole series of enterprises by the strongest undertaking, a brutal application of the struggle for existence, the cartel is a federative organisation which allows the individual enterprises to exist. These enterprises, when joining the syndicate or cartel, simply renounce a determined part of their industrial or commercial autonomy. Legally considered, the cartel appears as a share company of divers producers formed for the co-operative sale of their output or of certain classes of their products. (2)

Conditions of the formation of the cartels.

Neither in theory nor in fact does the cartel, therefore, absorb the whole of the industrial production of the country. All the industries—and in one industry all the products—are not equally susceptible of submission to the syndical rule. The most favourable conditions for the organisation of a cartel are: uniformity of the product, a certain equality in the cost price and conditions of manufacture, and absence of a commodity which can easily be substituted for that product. It is only on these terms that one may hope for the adhesion of the great majority of producers, a state of affairs without which the cartel has little likelihood of life. (1)

The type of the syndical product is coal. That is why the Rhenish-Westphalian coal syndicate absorbed, in 1903, 98·7 per cent. of the total production of the basin and, notwithstanding growing resistance, still retained 88·9 per cent. of it in 1913. Raw materials and partly worked products are equally objects for combines. (2) If finished products, rails, girders, heating-pipes, gas-pipes, etc., have been submitted to a similar fate, it is because they are treated in reality as raw material by the industries which consume them, by contractors and architects, and because it has been possible to establish for these products well-determined types and prices in series.

There is a cotton-yarn cartel; on the other hand, cotton weavers have never been able to combine on account of the fluctuation of prices, the too great variety of the products, and the caprices of fashion. The luxury or fancy article escapes from the combine. Paper manufacturers are able to combine for current qualities, but not for special varieties. Ordinary refractory bricks are syndicated, but glazed bricks are not. It does not rest with an industry, as such, to organise or not to organise itself in a cartel, to submit to the cartel the whole or only a part of its production. The existence of a legislative obstacle,

such as that which under certain articles of our code opposes the formation of cartels, is thus only one of the elements of the question. The formation of cartels is essentially bound up with standardised production.

This organisation presupposes equally a definite psychological condition, namely, the spirit of association joined to the habit of submission to authority. Do those of our manufacturers who most loudly demand from our public authorities the right to form combines take account of the real conditions under which the German cartels operate, of the iron discipline which rules in them—and would they consent to submit themselves to it? (1)

The manufacturer who enters into a cartel loses the right of selling directly and freely to the consumer that class of products which is pooled. In some instances the whole of his production is placed at the disposal of the sales bureau (Verkaufsbureau) which sells it to the best advantage of the syndicate and at prices of which it is the sole judge. In other cases, in the absence of a sales bureau, the committee allows the manufacturer to transact his own business, but it has uncontrolled power to fix the selling prices and the quota of production to be supplied by each factory. It can moreover delimit the geographical area within which this factory may sell its products. This system can obviously only operate if at all times each contracting party is assured that he is not a dupe of his good faith—that the limitations imposed on him are scrupulously observed by his co-partners.

Hence there arises a complete system of surveillance which we in France would term inquisitorial, a whole army of inspectors, "active, intelligent, and sufficiently fierce," (2) who act independently of and by the side of State inspectors, who arrive unexpectedly, who verify everything, the books, correspondence, warehouses. "The manufacturer is no longer his own master," and the secrecy of business vanishes.

Hence also quite a class of penal legislation, very

severe and extremely complicated. The inpsector can impose fines for every ton delivered in excess (sometimes for every ton under-delivered), for every ton delivered beyond the delimited zone, for unforeseen contraventions. When the total of the fine seems to be lower than the profit which may result from the contravention the fine is increased, fourfold sometimes, and even hundredfold. From 1882 to 1890 the penalty attached to each offending ton of coal in the Dortmund Syndicate rose from 6*d.* to £2 10*s.* These fines are officially placed by the sales bureau to the debit of the mine, and levied on the results of its sales. In the case of syndicates which have no sales bureau, each partner is bound to remit into the hands of the committee bills accepted by him, which the committee sets into circulation if the fine remains unpaid.

M. Paul de Rousiers, commenting on this draconic legislation, does not exaggerate when he says that the cartel "leads the partners with a lash." For, let us repeat, it is only at this cost, at the price of this abdication of the individuality of enterprises, that the cartel can operate.

The spirit of association and of discipline makes the working possible. "Individual enterprise," says an American observer, "has ceased to a great extent to be the unit in German industry. The German unit is the cartel." (1)

The only correctives of this mediatisation of undertakings are the following—

1. Even in industries which are most clearly designated for combination, all the undertakings do not join the cartel; and often it is the largest of them which escape from its clutches. (2) They have no need for it, and they tend more and more to set themselves free from its authority. (3) In order not to suffer the conditions of the fuel combine, or of those of raw material and partly manufactured products, the great undertaking exerts itself to extract its fuel and raw material from its own soil, to make its own

partly manufactured products, to complete in its own limits the entire process of production.

By the side of mines and factories there arises a new type, the mine-factory; (1) by the side of the simple factory—for instance, of the rolling-mill which must submit to the conditions of ironmasters—appears the complex factory. The rolling-mills had their hour in 1886, when their cartel, not being faced by a strongly organised syndicate of raw products, profited from the over-production and the fall of prices. To-day, when the mill is compelled to buy its steel from a powerful cartel, the situation is reversed.

To the concentration of the cartel, which is rather commercial than truly industrial, there is thus opposed the integration of great establishments, of a Krupp, a Thyssen, a Mannesmann. The possession at once of fuel, blast furnaces, steel, and mills is the means of escaping from the domination of the cartel. Because of their desire to absorb everything, the cartels have created formidable adversaries for themselves. These great undertakings only enter the cartel if they are offered advantageous conditions regarding their quota of production, of sale, etc.

2. In the second place, the cartel is not a permanent institution created for permanent aims. (2) Even as the factory does not enlist the whole of its production in the syndical contract, (3) neither does it pledge its future existence. The agreements are concluded for determined periods which are somewhat short, with extension on previous notice. They are only renewed at the price of negotiations, delicate at times, between the participants or the groups of participants. If the parleys fail, dissolution follows. Many cartels disappear, revive, and disappear again to be reborn in different forms. The cartel is not a rigid framework; it is an instrument very pliant in its adaptation to the changing conditions of the market.

These general considerations—which seem at first sight beside our subject—have perhaps not been

useless in showing to what extent the cartel, at least as it works in Germany, is a specifically German institution. There are cartels in other countries, and in France also. They do not resemble those of Germany. (1)

Cartels and the internal market. Was this institution conceived in the first instance to favour exportation? Not in the least. (2) The first cartels had no other object than to limit competition and to combat over-production and the lowering of prices *in the internal market.* These first cartels were anterior to the period when German industry became one of exportation. The cartel of Rhenish manufacturers of tin (Weissblechsyndicat) of 1862, the rail combine (Deutsche Schienengesellschaft) of 1868, the first potash syndicate (Kalisyndicat) of 1870—these were all of this type. (3) The need for fighting against over-production appeared even more urgent when the unorganised forward movement which followed victory terminated in the depression of 1873. (4) Many factories disappeared.

Competition was resumed furiously between the factories which had withstood the collapse, and selling prices often fell below the cost of production. The Phœnix reduced its capital from £900,000 to £90,000, the Rheinische Stahlwerke from £200,000 to £20,000. By successive reductions the Dortmunder Union lost £3,650,000. The number of its workmen fell from 12,000 to 6000, and the average annual wage from £70 in 1876 to £39 14*s.* in the following year.

The fall of prices did not even bring a revival in consumption. The crisis was in reality a crisis of under-consumption. It was in order to parry this that in 1876–7 a first convention reduced the Rhenish-Westphalian production by 10 per cent. Following the example of the coal-pits, the iron-working industries —and especially those of railway material—substituted for free competition the more profitable policy

of "ententes." These first cartels were merely price-fixing conventions, and the difficulty of control made them of doubtful efficacy. As the crisis had been aggravated by foreign competition and by the policy of Free Trade, these "ententes" had recourse to Customs protection, which began to operate in 1879. Protection was thus not the cause of the cartel—it is not its indispensable companion, because cartels exist in England, and there are also international cartels—but by enabling the syndicated producers to maintain prices in the home market it favoured the formation of national unions. (1)

It was between 1880 and 1885 that the rise of the cartels took place, it was then also that they began to frame a policy of exportation.

Cartels and the exporting policy.

Just like the cartel itself, this policy is "a child of necessity." The German factory, as we have seen, is established for over-production. There seems to be a contradiction between the two terms: growing over-production and stability of prices. The only means of reconciling them is to export the slice of production which is not absorbable by home consumption; and as over-production continues to grow, this slice is destined to become thicker day by day. But the foreign market is protected by a double barrier—distance and Customs duties, which are a reply to the German protection.

In order to surmount these obstacles, the German product must be relieved of a part of its burden. Its price must be brought down to such a level that, when burdened with freight and Customs charges, it remains at the utmost equal to—and if possible lower than—the price prevalent in the market to be conquered. The actual price of exportation, calculated at the pit mouth or at the factory, may be found to be very little above, equal to, or even below the cost price—no matter! Because one cannot stop the factory;

one can even only slacken the production to a certain extent, as a factory supplied with machinery to produce 200,000 tons cannot work under favourable conditions at the rate of 100,000 tons. At the same time there is a reluctance to disband a working staff which would be difficult to recruit afresh, and which is often largely foreign to the country. A loss on the export price appears thus to be compensated by the economy which results from the continuation of the working of a factory at full swing. (1)

This loss, moreover, would only be an absolute loss if the factory, on the home as on the international market, found itself in conflict with other factories equally interested in lowering their prices to the lowest possible level. But, thanks to the cartel, combined with Customs protection, the factories are masters of prices on the national market—at least in cases where the cartel embraces the great majority of producers. Here they recover on the home market the losses they suffer abroad.

Dumping. It is thus that the cartels are led to practise that policy of price-fixing which is called dumping, and which consists in establishing for the same product two prices, or two scales of prices: a comparatively high price on the home market, and lower prices, variable according to the case, on foreign markets.

Dumping, moreover, is not a German invention. The very name indicates it. Our great shops "dump" when on a sale day they offer certain goods at a loss in order to attract business. Small shopkeepers "dump" when, to kill a co-operative store, they temporarily lower the prices of bread and of groceries, only to raise them again later. Shipping companies "dump" in order to absorb a rising rival. The English dumped long before the Germans. They actually established the theory a hundred years ago, when—on the morrow of the application of the Continental

System—the return of peace threatened to add to the crisis of over-production in England, a crisis of under-consumption on the Continent. (1) The American trusts have often had recourse to dumping. (2)

Our own metallurgical companies do not hesitate to lower their export prices when there is a surfeit of girders on the French market. Our sugar industry, up to the Brussels Convention, has officially lived under the régime of dumping. But out of that which is in general only a temporary expedient, a means of purging the momentarily encumbered market, the Germans have made a permanent usage, a custom, a policy.

The English example proves that dumping is not necessarily bound up with the cartel or the protective régime of high tariffs. But it is the combination of these three elements which has given to the German system a rigidity unknown up to then, which has made of dumping a formidable machine of expansion. If it is historically accurate to say " it does not seem that the policy of dumping had as its *objective* the creation of permanent markets, but rather that it has been a ruinous expedient, the *consequence* of an embarrassed economic situation " (3)—the expedient speedily became an objective.

The struggle against the cartels.

This did not take place in a day, nor without exciting resistance. When it was noticed, about 1880, that numerous factories producing railway material had agreed to tender in common and to maintain their prices under the shelter of Custom duties, while they tendered far more cheaply abroad, German opinion was stirred. It was soon established that this case was not an exception, but that in every trade department competitors were joining in agreements at the expense of the German consumer. The question was placed before the public by Kleinwächter's book " Die Kartelle," in 1883.

What the public saw at first was that it was paying dearly under the régime of the cartel—more dearly than it would have had to pay under that of unlimited competition. It is true that the substitution of the system of regularised production for the régime of anarchical production afforded the public some safeguards during periods of rising prices, but prevented it from profiting by periods of falling prices. At all times the consumer is more sensible of the latter inconvenience than of the former advantage. He finds that he is made to pay dearly for the guarantee which the cartel gives him against sudden variations and famine prices; and the cartel does not insure him against another danger—insufficiency of production.

These disadvantages are all the more grave because, as we have seen, the cartel does not in any industry embrace the entire process of production. But let us not forget that, in the present system of the division of labour, the tasks are distributed in such a fashion that a particular product is (i.) a finished article with regard to the products or materials which precede it on the ladder of production, and (ii.) a raw material with regard to the product into which it must in its turn become integrated. A given industry is at one and the same time a debtor and a creditor, according to the manner in which one regards its place in the industrial hierarchy. At each stage of this hierarchy there is situated a cartel which is in the position of consumer in its relation to the cartel situated immediately below, and which itself has as consumer the cartel immediately above.

"The coal syndicate pursues its policy of prices (a moderate one, moreover) without regard to the coke syndicate, and the latter its own policy of prices, less moderate, without regard to the pig-iron syndicate, etc." (1) The damage suffered becomes all the greater as the industry in question is further from the point of departure, is placed higher on the ladder of production. In the iron-working industry, for in-

stance, a rise in the price of coke or of the mineral reacts on the following rung (partly manufactured products), which carries the injury sustained to its own consumers, the mills and the manufacturers of finished products, and these in their turn to construction enterprises. Now the higher grades represent essentially export industries. By raising the home prices of raw material, of the raw or semi-raw product, the cartel enabled these materials and products to be sold abroad cheaply. But by burdening the industries of the higher grades with undue charges, it enfeebled to that extent their capacity for exportation. The cartel was thus turning against itself. Invented to extricate the home market, it rendered the industries of finished products incapable of meeting on the world's markets the foreign competition which, on the contrary, benefited by the low prices of German coal, coke and iron. It was dumping reversed.

The inquiry of 1903. From this state of affairs sprang the great imperial inquiry on cartels of 1903. (1) The cartels were accused in the first instance of having abused their position to cause a famine of raw materials. In the spring of 1899, for instance, the pig-iron syndicate of Düsseldorf reduced by 45 per cent. the deliveries it should have made. It offered to sign agreements for the first quarter of 1900, but reserved the right to raise prices should the mineral become dearer. The contemplated increase took place, applicable only on April 1; yet this did not prevent the syndicate from increasing its prices immediately, and advising its customers from the autumn of 1899, that it would guarantee them deliveries during the second quarter if they accepted its offers at once. The majority submitted to these really iniquitous terms, and yet the syndicate, under the pretext of a shortage of fuel, again reduced the deliveries. Internally, then, the abolition of competition did not insure the consumer against anarchy. (2)

The cartel was further charged with truly excessive disparity between the syndical prices imposed on the German consumer and the export prices, not submitted to syndical contract. Gothein, the great adversary of cartels, was indignant to see the coke syndicate selling in Bohemia at 8.17 marks per ton, while it sold at 17 marks in Germany. It was shown that German sheet-iron was valued at 140 to 145 marks on the home market and at 100 to 120 marks abroad. For girders the prices were 112 and 75 marks, and for rolled wire 150 and 135 marks respectively.

If the disparity between the prices of coke in Germany (10.45 marks) and outside Germany (9.84 marks) was only 5·8 per cent. in 1902, alcohol was worth 59.50 marks in Germany, while the export price at Hamburg was 20.50 marks; notwithstanding a rebate of 24 marks and freight, London still benefited to the extent of 14 to 17 marks. In December 1900 the nail syndicate offered to deliver at 11 marks in Holland, whereas 15.50 marks was the price for Germany.

The difference was at times so great that it was profitable to re-import German products after having bought them abroad. In other words, the cartel favoured foreign commercial competition. In 1902 maritime yards were paying for sheet-iron 200 marks at Essen, 180 marks in Holland. Even with the addition of Customs duties and transport costs they had an advantage in obtaining their supplies in Holland. The cartel even favoured industrial competition. (1) "Dump as much as you can," said an English shipbuilder of Tyneside, with that admirable want of foresight which is one of the characteristics of the English spirit. In 1903, the chairman of the Palmer Shipbuilding and Iron Company declared that the great increase of its exportation to America and even Germany came from the steel and iron bought in Germany at 30 per cent. below English prices. Moreover, half of Germany's exportation of demi-products

(partly manufactured goods) was absorbed by England, without reckoning that a portion of the exportation to Holland and Belgium was also in reality destined for England. And since 1902 four surveyors from Lloyd's were permanently at Düsseldorf to examine and report on material before its exportation to England. (1) Hence the English Free Trader came to regard dumping as a permanent cause of impoverishment for the dumper and of enrichment for the dumped.

At the same time as German dumping was strengthening the English industry of naval construction, it was creating a similar industry in Holland, causing the construction of boats destined for the Rhine navigation to emigrate there to some extent. Thus we see, in this case, as in that of the Palmer Company, products manufactured abroad from semi-worked German products coming to compete even in Germany with the German product.

But the most typical instance is that of the Dutch and Belgian nail industry. It is a true offspring of German dumping. Wire at 125 marks the ton in Germany, and only 98 marks in Holland with cheaper labour, left a final disparity of 30 per cent. which enabled Dutch nails to penetrate into the region of Düsseldorf, which had heretofore supplied Holland. Victim of the dumping of the wire cartel, (2) the cartel of nails had to dump in its turn in order to defend itself —had to sell at 14 marks the quintal abroad against 25 marks at home.

Notwithstanding all this, the inquiry concluded in favour of the cartel. It was admitted that, taken all in all, the policy of the syndicates—and especially of the most important of them, the Rhenish-Westphalian coal syndicate—had been relatively moderate. (3)

Export bonuses. One factor, moreover, which assisted in making opinion indulgent was that the cartels had already begun, of their own accord, to correct the principal fault which was laid at their door;

to appreciate the lack of solidarity between the various industries and the egoism of raw-product industries in regard to those of transformation. Gradually the theory was born that the syndical home price of the raw product must be lowered when the latter is to be integrated in a product destined not for home consumption, but for the foreign market.

If Westphalian coal is to be sold, in the form of coal or coke, more cheaply than English coal on the Swiss market, it is natural and advantageous that this coal should retain its low price when it appears on the same market as a constituent of the pig-iron of the Ruhr. Hence there came into existence, without awaiting the inquiry of 1903, the idea of special export prices and, parallel with the hierarchy of industries and cartels, a whole hierarchy of premiums or reductions proportionate to the degree of finish in the products exported.

On February 1, 1902, at a conference held at Cologne, in view of the debility of the home market, and of the irresistible increase of the productive capacity of the factories, Kirdorf, the president of the Coal Syndicate, suggested an agreement to the iron syndicates. Complaints were made of the high price of coal; the coal owners replied that they would consent to a reduction—a reduction "limited to fuel serving to produce iron destined for exportation."

Such is the origin of the system. (1) It was a matter of conceding favours not to manufacturers taken individually, but rather to syndicates. That is to say, each syndicate would grant to those of its clients who wished to export a "drawback" practically equal to the difference between the internal and the external price. (2) The balance between the export bonuses granted by the various syndicates was then struck. An export-compensation board (Abrechnung-stelle für die Ausfuhr) (3) solved disputes, prepared propositions regarding the amounts and the duration of the premiums, and revised these propositions each quarter on the basis of the sales effected during the preceding quarter.

The initial factor was the consumption of raw material, for which a ready reckoning table was drawn up; for each ton of Bessemer ingots, 150 kilogrammes of coal; per ton of pig-iron, 1100 kilogrammes of coke; per ton of rails, 1200 kilogrammes of pig-iron, etc., etc.

Systematisation of dumping.

Thus was forged for all future time the weapon of economic conquest. Thanks to this combination of the cartel and dumping there is not only an avoidance of the danger of backward dumping, of which the story of the Dutch nail industry was a brilliant illustration, but by this system of direct or indirect bounties—rebates actually paid or special prices granted to exporters—generalised dumping tends to confer an incontestable superiority on all German industries, to the transformation industries equally with the others.

After the inquiry of 1903 in particular, arose the "egoistic" policy of the cartels. The creation on March 30, 1904, of the great steel syndicate, the Stahlwerksverband of Düsseldorf, united in one federal organisation the cartels of semi-worked products, girders, rails, and sleepers. The Verband takes in hand the control of exportation, and tries to regulate it according to the common interests of the various adherent syndicates.

This powerful collectivity is able to negotiate with the Rhenish-Westphalian coal syndicate and with the Silesian coal convention, with the coke and iron syndicates. It is able to create an "Abrechnungstelle" for exportation. It is able, in order to distribute its bonuses, to constitute a special fund, a veritable "war chest," by levying from its adherents a tax of 20 pfgs. (2½*d.*) per ton, which gives it nearly £40,000 a year.

We repeat, because this point must be clearly understood, that it is no longer a matter of isolated manœuvres attempted by each cartel at its own risk

and peril, but in reality a "policy" of exportation, common to all the cartels and, as we shall see, openly encouraged by the State.

The solidarity between the cartels is henceforth complete. Every reduction in the price of demi-products or every increase of bonuses, at once, almost automatically, leads the syndicates placed immediately above on the ladder of production to follow the movement. In May 1913 the steel syndicate increased its bounty from 10 to 15 marks. The machine syndicate in its turn lowered its export prices. In June the coal syndicate restored its export bounties; the pig-iron syndicate did likewise. On January 1, 1914, the bounties on coke and coal for coke were brought back to 1½ marks in consequence of a fall of 1 mark and 1½ marks respectively in the prices; the pig-iron syndicate followed this inverse move.

To ensure the regular working of this intersyndical organisation, a conciliation board, "Vermittelungstelle für Kartelldifferenzen," composed of delegates of the great syndicates, establishes the bounties, determines their sphere of application, and settles disputes.

The individual disappears in the cartel, and the latter is itself absorbed in that species of cartel of cartels which ends by constituting German industry. Even the large autonomous firms, often members of several cartels for such and such portions of their production, treat with these groupings, add to their formidable power. For economic guerilla warfare there is substituted action by masses, a veritable strategy.

The time is past when manufacturers in Free Trade countries could congratulate themselves on receiving raw products at low prices and could say to the German dumpers, "Dump as much as you like." The wire mills syndicate, for instance, continues, it is true, to sell to the general run of German manufacturers machine-iron at 127½ marks, while the same iron, delivered at Antwerp, only costs 102½ marks. But if the German factory wishes to work for foreign countries,

the syndicate makes over to it—on proof of its orders—a premium practically equal to the difference in prices—bonuses which are greater in times of crisis, lower in periods of prosperity. Dumping has thus come to correct its own abuses. (1)

Effects of dumping. Thus armed, the cartels proceed first to set themselves the task of evicting from export markets the competition of other producing nations. Further, the export prices vary according to the special situation in each market. The same German girders, the cost price of which oscillates between 85 and 95 marks a ton, and which are worth 130 marks in Germany, are sold at 120 to 125 marks in Switzerland, at 103 to 110 marks in England, and only 75 marks in Italy. The exporters content themselves with a very small profit, or impose on themselves, if necessary, "the sacrifice of any profit in order to plant themselves in a market, and to continue this sacrifice till they may have evicted their competitors." (2)

Economic relations are regarded as operations of war, and the markets become battle-fields where the only consideration is the defeat of the enemy. How can the latter hold out when, as in 1912, for each ton consumed for exportation one sees the Westphalian coal syndicate pay to its clients a bonus of 2½ marks, that of pig-iron 6¼ marks (including the coal bonus), that of machine-iron 11½ marks for wire and 16½ marks for nails? How can one be surprised, after this, that from 1895 to 1913 Germany has almost completely taken away from the Americans the French market in tools and machines, and even more completely the Swiss and Italian markets. (3)

It does not suffice the German exporter by his dumping to defeat his competitor on a third market. His ambitions go much further. It is necessary for him to kill on this market the national industry itself, if it exists, and to stifle it beforehand if it shows signs

of coming into existence. In the case of machine tools, not only must the prices discourage American competition in France, but "they are generally established in such a way that a machine can be sold on the French market, after payment of Customs, transport, etc., at a price not above and generally lower than that of the French producer."

What can Belgian or English factories do against Rhenish factories which receive special bonuses, (1) practically equal to the cost of transport to Rotterdam, Amsterdam, or Antwerp? In 1913, when Cleveland pig-iron was lowered by 10*d.* a ton at Glasgow, German sample consignments were offered at prices *several shillings lower* than the local rates fixed some weeks before. The sale of these lots was followed by considerable deliveries, and "several local blast furnaces were extinguished." (2) This is where the imprudent policy of the rivals of the Palmer Company had led the Scottish iron industry.

This example is typical. Neither distance nor duties protect industry against what an Italian publicist (3) calls so justly this "legal contraband," because the syndical bonus could always be raised to the level of the freight and duty charges, because the cartel is resolved to suffer losses until it may have "shattered the enemy's will to resist," as strategists say. It is for the "enemy"—that is, all of us—to take account of these new methods introduced by Germany into economic warfare. Even as in the war against Germany it would be self-dupery to respect the laws of war in the presence of an enemy who makes a system of the violation of these laws, so, in the presence of this generalisation of dumping, it is self-dupery to remain faithful to the rules of Free Trade. Deception all the more complete because, as we shall have occasion to see, the intervention of the German State, whether directly by fiscal concessions or indirectly by the organisation of transport, aggravates still further the inequality between German industry and its competitors.

The dice which Germany throws on the international table are loaded. It is madness under these conditions to practise fair play with a player who cheats.

And yet this is exactly what the other nations are doing with a strange blindness. Thanks to their agreement with the confederate States, the two German locomotive cartels reserve for themselves the market of the Empire, rigorously closed to foreign locomotives. But, in return for the high prices which they are guaranteed respectively in Prussia and in South Germany, these cartels are able to lower their prices for foreign countries. As, in nearly all foreign markets, railway material is subjected to the rule of public tenders, the German cartel tenders at prices which discourage its competitors. In Spain, where the majority of railway companies are French, the engines used to come from France; members of the German cartel have made their appearance on the adjudication, have tendered below cost price, and have driven us from the market.

They have carried out the same policy even in France. Neither for its own network of railways nor for subsidised companies has the French State understood that the procedure of public tender, a procedure adapted to a régime of free and honest competition, was constantly falsified by the intervention of dumping. Seduced by low prices, shorter periods of delivery, etc., our administrations have shown the gravest prejudice to our railway material industry. Under the pretext of remaining faithful, in face of a veritable system of commercial piracy, to the "healthy principles" of economic orthodoxy, they have facilitated "backward dumping," "counter-dumping."

Thus, "following the crisis of 1906, the French companies were actually themselves absorbing a quarter of the German exportation." The German prices on the French market, after payment of Customs dues and freight charges, were lower than the French by 30 centimes per locomotive-kilogramme. (1)

And it was the State administrations of German railways who bore the burden of the difference!

Another example which is still more worthy of meditation. Why, at the outbreak of the war, were we short of essential products for the manufacture of our explosives, such as phenic acid? Because in peace time, in the tenders to the French Ministry of War, the Germans always offered enormous abatements, descending below the French cost price, and thus carried off the orders. Thus, discouraged, our manufacturers abandoned the sinking of capital in installations so costly to retrieve, and therefore the industry of phenic acid disappeared in France. (1)

The administration of the Navy has followed in the footsteps of the Army and railway administrations. Allured by the conditions offered it by the Maschinen Fabrik of Augsburg, it seriously obstructed the manufacture in France of Diesel motors used for submarine navigation. The somewhat obscure history of the activities of the Augsburg company and the corresponding cartel (Verein deutscher Maschinenbau Anstalten) appears to hide a particularly clever and subtle form of dumping.

But certain nations have been more directly aimed at than France, especially those which, recently born to industrial life, aspired to give themselves an autonomous industry. As to these, it was necessary to break them at all costs, and, as one would have said of old, to "enervate" them in order to keep them for all time in their position of obligatory clients of the German factory. It is thus that "Italy is the experimental field which Germany has chosen for the application of her illegitimate systems of competition." (2) Thanks to a very skilful policy of railways, to the application of dumping on the grand scale, and to a third means (industrial transplantation) which we shall study later on, Germany made every Italian Customs defence absolutely illusory.

Agricultural dumping.

To the classic forms of dumping, industrial and commercial, the Germans have added another—agricultural dumping. (1) They have only been able to do it, moreover, thanks to the active collaboration of the State, which in this instance plays the rôle that in industry has devolved on the cartels. The State had before it the problem of restoring equilibrium at one and the same time between the factors of production and the political parties, and, after having so much favoured Rhenish and Silesian manufacturers, of doing something also for the agrarians of the east. It was a matter of realising this paradox: industrialised Germany becoming an exporter of cereals, exporting rye even to a producing country like Russia.

The system is simple. The exporter of cereals or of flour can obtain at the time of export a certificate ("Einfuhrschein") which will permit him, four months after delivery, and in the following six months, to import free of duty a corresponding quantity of cereals or flour. In form, this measure seems destined to favour importation. But, firstly, the importer may set off one kind of cereal or of flour by another—rye, for instance, against wheat, of which Germany has a growing need; secondly, he may equally use the certificate to import, in accordance with a special schedule, certain produce or merchandise other than cereals, such as wood for construction, fruits from Southern France, roots, rice, tea, coffee, cocoa, olives and olive oil, animal and mineral oils, gelatines, salt herrings, lobsters, caviare; and, thirdly, the exporter and the importer are not necessarily one and the same person. The importation certificate is a bearer security, negotiable on exchange. (2)

Let us examine the economic side of the system. Supposing that the price of rye, 110 marks the ton on the world's market, is 150 marks in Germany; this means that the German quotation is lower than the world's price augmented by the German Customs duty

of 50 marks—there is hence profit in exporting. In effect, the German will sell his rye at 110 marks and will receive a certificate which he will re-sell on Exchange for 50 marks; he will thus receive a total of 160 marks, or 10 marks more than if he had sold in Germany. Supposing that the difference between the two prices becomes less than the amount of the Customs duty, the "Gutsbesitzer" (landed proprietor) beyond the Elbe will be able, just in the manner of the Westphalian metallurgist, to lower his selling price for abroad below the price of the world's market, and still net a profit.

Cruser and Hoschiller have described the effects of the system; since 1908 the exportation of rye exceeds the importation, which has diminished in five years by 39 per cent. Poland and the Baltic Provinces have become, strange to say, customers for German rye; they have seen arise, all along the frontier, German flour mills which grind German rye and return to German farms the bran, which Germany receives exempt from duty. The result is that Germany at present divides with Russia the rye victualling of Finland, and takes away from Russia the Finnish market in flour.

In Norway, since 1906, the importation of Russian rye and rye flour has fallen by 48 per cent., while the importation from Germany grew by 330 per cent. in grain and 105 per cent. in flour. In the case of Sweden, in ten years, imports of Russian rye have fallen from 41 per cent. to 22 per cent.; imports of German rye rose from 52 per cent. to 70 per cent., and 96 per cent. of the imported flour came from Germany.

The exportation of flour is further favoured by the fact that the official standards (75 kilogrammes of flour per 100 of wheat, 65 per 100 of rye, 75 to 78 kilogrammes of malt per 100 of corn or barley) are lower than the actual yield. There is hence an over-dumping of which the State, by the exercise of its Customs powers, consents to bear the burden. Also

in ten years we have seen the exportation of wheat flour pass from 206 tons to 295,000 tons, that of rye flour from 119 tons to nearly 77,000 tons.

As the result of this state of affairs, singularly profitable to German milling, the Germans transport to Finland wheat flour made in Germany from Russian grain.

Defence against dumping.

Under these various forms, dumping, which has been so well termed "economic overweight," (1) has become a permanent danger for all the States which have relations with Germany. For a time it seems advantageous to the countries which are the object of this dumping, because it procures for them, at very low prices, the raw or semi-worked products of which their transformation industries are in need. Superficial minds may then rejoice at it. But German dumping is a coherent system. It first kills the preparative industries in the country in which it installs itself. Thanks to the system of bonuses, it can then challenge the transformation industries.

German industry thus shatters all the forces which can compete with it, in such a way as to reign over the ruins. Once again, German dumping is not a procedure of economic action; it is, in times of unclouded peace and under deceptively peaceful aspects, a measure of war. It carries agitation into the internal life of competitors of Germany, it puts out of tune the normal play of their Customs system; (2) it absolutely falsifies every formula of commercial liberty, of equality of treatment, or of reciprocity inscribed in treaties.

Some nations, therefore, have deemed it necessary to have recourse to measures of defence. The Canadian tariff stipulates, in cases of sale to a Canadian importer at a price lower than that current in the country of origin, for a double impost: (i.) The regular duty, calculated not on the invoice total, but on the normal price; (ii.) a special tax equal to the difference between

the invoice and the normal price. (1) Special agents, established in the exporting countries, inform the Canadian Ministry of Customs of the prices on the local markets. The recent New Zealand legislation is inspired by that of Canada. (2) South Africa also proposes to follow Canada's example.

International cartels. Analogous measures would no doubt have been more efficacious than those to which English, French and Belgian metallurgists thought it necessary to have recourse in 1904, when negotiating with the Stahlwerksverband an international entente—an entente which has provoked the formation of the Belgian cartel and of the French Comptoir des Poutrelles. This agreement was saluted as "a first movement in a new direction, the repudiation of the German cartels' method of dumping to the death." (3)

To be precise, what we know of the history of the German cartels and of their methods does not permit us to place confidence in these "scraps of paper."

Associations of this kind are of very short term, and the German syndicates are able to secede from them as soon as they have profited by them peacefully to conquer new positions.

These agreements are concluded with syndicates juridically constituted, but it is necessary to reckon also with secret syndicates, (4) in the same way as it is necessary to reckon not only with official subsidies, but with clandestine bonuses. (5) That is what the Canadian legislation does so wisely. Let us add that these attempts at international regulation of production and of sales appear singularly dangerous to any one who knows the lion's share which Germany means to reserve to herself in the "organisation" of the world.

We have been obliged to disregard in this chapter everything which did not bear on the "external

policy " of the cartels, to omit all mention of the fights of the great syndicates against the small, of great factories against modest factories, of coal against iron, of pig-iron and steel against mill products, etc. We have thus presented a picture of German industry more harmonious, more serene, than the reality.

This distortion, after all, is of little importance, because these very struggles have ended finally in the following result—an increasing augmentation of the capacity of production of German industry, and of its power to invade external markets.

CHAPTER III

MEANS OF TRANSPORT

LET us close our eyes and try to call up before us those pictures of German wealth which have struck us most.

The banks of the Rhine.

First among them will be the banks of the Rhine, that famous "heroic chasm" where our fathers went in search of romantic impressions, of natural curiosities, and of souvenirs of the Middle Ages, which they would have found more cheaply and of infinitely greater rarity in the incomparable silver ribbon which flows between the black central highlands and the scintillating Alps and descends from Lyons to the sea—from the misty zone of the alder trees to the luminous region of the olive.

To-day we seek more complex problems on the Rhine. At the bottom of the cutting which rends the schisty mass in twain, at the foot of rocks and castles in renovated ruins, before the vines of the Johannisberg and in the shadow of the bronze Germania, along the two narrow banks, there roll, smoke and whistle without ceasing interminable trains loaded with coal or minerals; they roll in the face of the Bingerloch and against the Lorelei; they tunnel in and out of the defiles which inspired Victor Hugo with a holy horror, and their roar dominates that of the stream. On the river itself, which no longer has sandbanks or whirlpools, there are other trains which wind their way, drawn by tugs.

Where the boatman used to entrust his soul to God

there now pass great steel barges of 1000 and 1200 tons, and a normal convoy of four of these carries in its holds as much merchandise as twelve trains composed of 4000 trucks. (1) At Ruhrort these barges are of 2000 tons and are 100 metres in length.

And on these tug routes glide those solid and light steamers, Rheinseedampfer, vessels of the Rhine and sea, which bear to the works and workers of Westphalia the wheat and the petroleum of Pennsylvania, while the sea-lighters and their special tugs (Rheinseeschlepper) go via Rotterdam not only to Bremen and Hamburg, but to the ports of Sweden and even as far as Petrograd.

Hamburg. Let us close our eyes again. We are on another great river, a real arm of the sea, though at 100 kilometres from it, with tides, spray and tempests, which rolls its heavy black waters under a grey mottled sky. A speedy little river-steamer bears us through a moving forest of masts and funnels, in the midst of small vessels which cross, graze, and strike against each other and mingle into one cloud their plumes of smoke. Their docks are encumbered with vessels of every design and size—transatlantic giants, immense five-masted sailers, strings of barges which ply towards the higher stream; lighters laden with cases, sacks, coal, and even barges propelled by oars.

On every hand are palaces of brick, sheds and warehouses, where merchandise is stacked; cranes electric, hydraulic, steam, and even hand-cranes, still surviving witnesses of the former life. Behind the docks, railway lines and engines, and barring the dock basin from the higher stream, an immense railway bridge. It is Hamburg.

Let us now combine these impressions, bring these pictures close to one another, and we shall inevitably draw the conclusion that the power of expansion of the new Germany is in a large measure due to the

organisation and the activity of her transport system. The subject is so well known and has been so often and so closely studied, even in France, that it will be sufficient to give the essential indications on this point. Specially shall we examine to what extent the various instruments of transit have favoured exportation.

(A) Railways. The German railway policy does not resemble the French, and even less that of England or the United States. It proceeds from the conception that, since the Great Elector, and especially since the "enlightened despot," Frederick II, the Brandenburg-Prussian State has formed of its rights and of its duties—a conception which became that of the German State after having been formulated by the theorist of national economy, Friedrich List.

A policy of national economy regarding railways. The possession of railways by the State in Prussia, the absorption in the Prussian net of the small enclosed States, the establishment of more or less close relations between the Prussian railways and those of Saxony, Hesse, and even Bavaria, are regarded by the Empire as so many means of making of the railway, "in the hands of the State, the most powerful instrument of its political economy." (1)

The transporting State operates by means of its rates. These are inspired neither by the rule of supply and demand nor by the necessities of competition, "but by the need to support certain products against some foreign competition, to aid the development of national seaports, to permit the introduction at a low price of merchandise considered necessary or useful." There is nothing which clashes more violently with the English, French, or American ideas of economic liberty, of fair play, and of equality between the users of transport facilities. It comes to this—that the German State is not a dealer in these facilities, but "an arbiter between the industries and the provinces."

Exceptional transport charges.

Special transport rates, for which it is always very difficult to obtain public consent in France, are almost the rule in Germany. They are generally combined in such a way as either to defend an industry menaced by foreign competition, or to favour exportation. In the former instance the rate adds to the Customs duties a new tax which is not inscribed in the contracts, but which is often more efficacious. In the latter, it superimposes on the dumping practised by the cartels a supplementary form of dumping; it helps German industry to shatter the barrier raised by foreign Customs duties.

And it is not merely a matter of insignificant differences in the price of transport. In 1903 M. Paul Léon estimated the average price of the special rates from the ports of Hamburg and Bremen to Westphalia, or vice versa, at 2.6 pfgs. per kilometric ton, while the normal price was 5.11 pfgs., and he estimated that, taken all in all, the exceptional rates applied to 63 per cent. of the kilometric tonnage and 46 per cent. of the receipts. At the moment when he wrote, the special petrol rate had just dropped from 6 pfgs. to 2.2 pfgs., and that of cotton from 4.5 pfgs. to 2.2 pfgs. In 1914 M. Aulagnon showed that the export rates on grain, alcohol, sugar, coal, pig-iron, steel, lead and wood constituted reductions in favour of German producers which in some cases amounted to 30 or 35 per cent.

The exceptional rates are at times completed by rebates, which even go so far as the complete repayment of the transport costs in German territory, (1) while, thanks to the skilful international conventions, the German railways extend their domination well beyond the German frontiers. In this manner the Gothard Convention permitted the establishment of Germano-Italo-Swiss rates which have resulted in placing Northern Italy in a condition of dependence on Germany.

Inversely the internal rates are considered in the light of defensive weapons against the competition of foreign carriers. For merchandise which we might have been tempted to send direct by sea from France to Russia, we were offered international rates (via Belgium and Germany) which were more advantageous kilometrically than the German rates. In the case of other goods it was " more expensive to send them from France to Russia in direct transit than to dispatch them to Germany for ultimate reconsignment to Russia," and the administration of the Prussian railways opposed the passage of through wagons. It was the same for goods from Russia to France, as it was more advantageous to have them regrouped in Germany under the care of German agents or to consign them direct by German vessels. (1)

Combined rates by rail and sea.

This intervention of the German ship by the side of the German railway reveals to us another means of German commercial penetration—the combined rate. It is somewhat difficult to be exactly informed about these combined sea-and-rail rates, which Germans consider one of the secrets of their power. (2) What is known is that, by means of a single consignment note, one is able to send goods from certain German stations to certain stations abroad, by a determined port, at a single and very reduced charge which includes land carriage, sea freight, and handling costs.

When we are able to ascertain the portion of the total price which reaches the railway, we learn that this part is the very smallest. From Kiel, for instance, to a Levantine port by way of Hamburg, the quintal costs 3.28 marks; from Essen 3.79 marks. The 300 kilometres which roughly represent the difference between the distances Kiel-Hamburg and Essen-Hamburg are thus translated in the combined rate by the insignificant increase of 51 pfgs. ! (3)

Beer in cases, sent from Breslau to Hamburg in

complete truck loads, costs 3.76 marks; from Hamburg to Delagoa Bay it would cost, according to the normal rate, 6.40 marks, giving a total of 10.16 marks. (1) But from Breslau to Delagoa Bay via Hamburg the tariff is 7.08 marks, all charges included, which represents on the railway part of the journey a reduction of 74 per cent. What Customs duty could prove effective against such a system?

What reveals clearly the spirit of this system is the fact that it is not a matter of reductions of a uniform total, inversely proportionate to the distance. The sum varies according to circumstances. For example, as regards the combined tariffs applicable to the German Levant Line, due attention has been given to the fact that South German traffic could be drawn off by Trieste to the detriment of Hamburg. In consequence the reduction is much greater for Stuttgart than for Hanover, which cannot avoid the great Hansa port. It is thus a matter of favouring at one and the same time the exportation of German merchandise and the German export ports.

"The State railways," says M. Hennebicq, "thus come to transport at a loss for the greater profit of favoured shipping lines."

(B) Navigable waterways. We recalled at the beginning of this chapter that Germany's navigable waterways have aroused the admiration of all those who have seen them. (2) Rivers improved, straightened, deepened, cleared of obstacles, veritably "constructed" by engineers; canals of great width, accessible to barges of 400 and 600 tons; inland ports, the tonnage at which exceeds that of even very large seaports, (3) with perfected machinery, which enables oceanic influences to penetrate to the very heart of industrial districts, and where the junction of the waterway and the railway is effected—all these fine works have made Germany the fatherland of inland navigation. (4)

Construction of waterways. This is explained, it is true, by reasons largely historical and geographical. Towards the end of the nineteenth century Germany was still poorly equipped with canals: 1700 kilometres compared with nearly 5000 kilometres in France.

She has, in this respect, as in the constitution of her industrial machinery, benefited by her delay. She has not had to solve the problem of adapting to the necessities of modern traffic canals some of which are centuries old. She has been able to build them on a grand scale from the beginning.

The rivers of Germany, by their length, their slight gradients, and the regularity of their flow, opposed a minimum of difficulties to the art of the engineer. The crossing of the schisty Rhenish highland presented the only important obstacle. Let us note that these rivers—running parallel except the Danube—all flow from the mountains to the sea. If they were in consequence mediocre instruments of internal commerce, they formed excellent instruments for exportation. From early days merchandise passed by water towards the Hansa towns, towards the ports of the Netherlands.

When it was desired to establish transverse communications between these parallel lines, it was found that here also nature had worked for man. It would be necessary to describe the geological formation of North Germany to explain how a longitudinal furrow crosses the great plain from end to end, linking the windings which the various German rivers describe towards the west. In this furrow a canal will have the smallest possible number of locks. Here there is nothing to be compared with those sheets of water arranged in stages, to those veritable hydraulic ladders which the junction canals are in France.

War of the canals! Nature had thus prepared the way for the work of man. Man it was who revolted against nature. It does not enter into

our scheme to tell the history of this "war of canals," (1) a war of twenty-three years' duration in which one saw the all-powerful Kaiser appropriate a Napoleonic idea, only to break himself against the formidable resistance of the agrarian interests. The project of the "Mittelland Kanal" of 1899 did not have exportation as its aim, but really the opening of the markets of the east to Westphalian industry; the coal and iron magnates in those distant days were still preoccupied with the thought for the internal market. But the agrarians protested against this rupture of the balance between the two poles of Germany, between the two great social influences which dominate the Empire; they recognised at once that the canal would be a channel for the entry of foreign cereals. William II threatened, stormed, hurled innumerable "Quos ego" . . . and finally contented himself with two distinct systems, east and west, without any connecting link between them. From Magdeburg to Hanover a gap in the navigable network affords proof since 1905 of the agrarian victory.

Out of this struggle the State has, however, gained something—the monopoly of traction. This monopoly had made of the canal an instrument analogous to the railway. "By fixing the traffic rates according to the needs of the industrial life," says the reporter of the Bill to the Prussian Upper Chamber, the canal State becomes an arbiter like the railway State. The consultative Committee of Waterways (Wasserstrassenbeirat) and its local sub-committees, on which representatives of agriculture, industry, commerce and navigation take their seat beside those of the State, are able to dole out the favours necessary to each region and to each branch of national industry.

Legend of the co-operation between railways and waterways.

Let us not exaggerate, nor believe that after this law of 1905 perfect harmony reigned in Germany between the various administrations of railways and navigation. M. Paul Léon has reduced to

naught the "singular legend . . . of the co-operation between railways and waterways in Germany." (1) In Germany, alas! as in other countries, administrations, whether they be public or private, resemble the Being of Spinoza: they tend to persist in their existence, to enlarge their sphere, and to encroach on that of their neighbour. The German State railways are not only an instrument of transport, but a fiscal machine which produces a great deal. For the State-owned railway, as for a railway company, the waterway is a competitor. Notwithstanding the insignificance of the technical difficulties in the Moselle-Sarre canalisation scheme, projected in 1905, the Government opposed it in April 1910 and in March 1912, partly for the reason (2) that the canal would lower the receipts of the Prussian-Hessian and the Alsace-Lorraine railways. It prefers to lower the tariffs for minerals, coke and iron rather than to excavate the canal.

And yet certain facts seem to show the opposite, notably with regard to water termini. These facts are only contradictory in appearance. If Mannheim and if Gustavsburg have been able to effect the junction of the barge and the railway, it is because these "local networks (Hesse and Baden) terminate at a river-way which does not compete with them." (3) On the contrary, it supplies them with traffic.

It follows that, by the development of her waterways, Germany has found herself endowed with a new means of expansion. Even if it has not been possible in Germany, any more than elsewhere, to effect between the two methods of transport a systematic apportionment of merchandise, it is no less true that Hamburg to a great extent owes its prosperity to the fact that heavy materials reach it, not only from Silesia and Saxony, but even from Bohemia, by way of the magnificent course of the Elbe, along a system of towage which measures more than 700 kilometres. Inversely, if Rotterdam has become an ex-territorial German port, it is because the exchange of merchandise can take place there in mid-stream

between vessels of the high seas and the trains of barges which descend from Mannheim and from Ruhrort-Duisburg.

Inland ports. Whether the inland ports were born in Germany because the local networks of railways found it to their advantage to create at these places local traffic termini, whether in other places they were created completely outside the railway administrations, and often notwithstanding them, by the initiative of municipalities or even of manufacturers (1)—all this does not matter. These ports exist. They tend, on the Rhine at least, to penetrate each day deeper into the interior of the country, to carry back the terminus of the Rhine navigation from Mannheim to Strasburg or to Kehl, then from Strasburg to Bâle, from Bâle to Constance—was there not even talk of carrying it from Bâle to Geneva? (2)

In the same way the Elbe has its inland ports at Magdeburg, Dresden and Schandau, the Oder that of Breslau. Thanks to these inland ports, one might thus say that customers themselves come to bid for and acquire German products even in the manufacturing districts.

The very struggle between rail and water has helped exportation, because the railway, in order to fight the canals, has constantly lowered its charges for heavy material. By defending itself against river transit, it has protected the German ports against foreign ports. From the war between the two methods of transport, Hamburg and Bremen have reaped benefits in the form of differential scales of rates, and German industry has profited from it no less.

(C) The mercantile marine. "Unsere Zukunft liegt auf dem Wasser" (Our future lies on the water). We know what influence this hypnotism of the sea has exercised on the minds of the present Kaiser and of German financiers and manufacturers,

how far it has contributed to steer them into the paths of world-economics, to show them in England the enemy whose power must be broken at all cost.

We see here that rapidity of growth which is one of the most striking traits of the German evolution. In 1856 the first regular service from Germany and the United States was opened, with one steamer. In 1870 the merchant fleet barely exceeded 640,000 tons; in 1914 it measured nearly 5,000,000 tons gross.

In 1901, 52,000 ships of nearly 9,000,000 tons left German ports under the German flag, while in 1909 these figures had grown to nearly 65,000 vessels of more than 13,000,000 tons; so that, notwithstanding the three land frontiers which bound the Empire, 70 per cent. of the German trade was done by sea.

Shipping companies and concentration.

The German companies were the first to construct giant liners of 20,000 to 25,000 tons, which have since been exceeded. These sea monsters were the first to effect speedy journeys—the *Deutschland*, 5 days 6 hours from Sandy Hook to the Lizard; the *Kaiser Wilhelm der Grosse*, 5 days 19 hours from Cherbourg to New York—both made more than twelve years ago. And to supply crews for this mercantile fleet, from a country which has little coast line and fewer than 75,000 men in its maritime population, it required 70,000 sailors besides the 65,000 which the German Navy needs in times of peace. The effectives of the merchant service have been trebled in twenty-five years. (1) We thus have here an example of a land nation which, by a voluntary effort, has become a maritime nation.

The industry of transport by sea has grown in the same manner as the other German industries; and, first of all, by concentration. Here, also, over-production had generated excessive competition and cutting of rates. Here also, here above all—because

the problem was essentially one of international competition—the Germans tried to impose on their rivals an international entente. (1) Even if they have only indifferently succeeded in creating an "ocean trust," they have at least brought about concentration at home. In 1914 two companies, the Hamburg-American and the North German Lloyd, represented alone 40 per cent. of Germany's commercial marine. United under the powerful hand of Herr M. Ballin, they caused secondary companies, such as the Hamburg-South American, Kosmos, etc., to become their satellites. They formed a secret cartel.

One of these companies alone, the Hamburg-American—the "perfect type of world service," (2) —has to-day sixty-eight lines, touching all the American ports, crossing the Pacific from Hong-Kong to Manzanillo, and from Japan to Puget Sound. Hence economy of general expenses, hence also the possibility of neglecting local losses of traffic, (3) of organising plans of common action, of sending collective missions to study the conditions in the markets which are opened up. Hence the means of influencing the industry of maritime construction, of assuring it of regular orders. Hence, in this industry, the introduction of scientific methods. I have described elsewhere (4) the experimental shipping station at Bremerhaven, the Schiffs-Versuch Station of the North-German Lloyd, and tried to explain how this proceeding enabled costly experiments to be avoided and to bring to the task a remarkable precision, certainty, and rapidity.

It is this concentration which makes possible the rapid amortisation of capital and in consequence the "scrapping" of ships which have become old, the perpetual rejuvenation of the floating machinery. You do not find in the German mercantile marine old vessels of thirty or forty years. (5)

What the German industries, properly speaking—metallurgy, electro-technique, etc.—secure by stand-

ardised production, the German merchant service obtains by the frequency and regularity of sailings. Germany did not possess at the first onset maritime relations comparable to those of England—customers scattered in every corner of the globe. Moreover, that essentially British type, the "tramp"—the vagabond ship which picks up freights from place to place—is rare in Germany. The regular lines absorb 80 per cent. of the tonnage, and these lines have sailings at fixed dates with short intervals. This frequent and regular service attracts merchandise to Hamburg, even at higher rates, because in many cases it means a saving of weeks; frequency is more important than speed. (1)

In the same way, then, as the German factory produces on a large scale, not for a given clientèle, but for a possible future clientèle, ready to find and create this clientèle, the German mercantile marine does not wait till the need for new lines should make itself felt before creating them; it creates the need by organising itself to satisfy that need. "In the case of the Germans," writes M. de Ribes-Christofle, "the creation of shipping lines does not follow trade, it precedes it." (2) And, in preceding it, it brings it into existence. Lamprecht had already noticed it; (3) the German expansion in the Far East and in Australia only began after the creation of postal services, about 1886. After the beginning of the following decade, the traffic assumes a certain volume. On the mistress line, Bremerhaven-Shanghai, are grafted a Colombo-Sydney branch and a Singapore-Polynesia branch. To the postal lines are added secondary companies, and thus traffic is created.

We have a complete example of this foreseeing and daring method in the measures taken on account of the opening of the inter-oceanic Panama route. (4) In 1912 the Kosmos Company ordered five new ships of 12,000 tons for the Pacific coast of South America, and the Hamburg-American decided to construct

three for this purpose. United by a community of interests, these two companies created at Valparaiso the Agencia Maritima Kosmos with a capital of £50,000, which, in conjunction with the Bank für Chile und Deutschland, prepared itself to exploit the Chilean iron and copper mines, and started a campaign for the enlargement of the port of Valparaiso. As the material had to be transported by the Kosmos, the freight for the first journeys was assured.

The Hamburg-American dispatched a mission of inquiry to San Francisco and to Vancouver. More than that, before the war, *it sold in advance, for the future Far West line, emigration tickets payable in monthly instalments.* Averaging a monthly payment of a dollar, the emigrants not only paid the cost of the journey, but raised the sum which the American authorities require every "desirable" newcomer to possess. While their rivals wait for traffic, the German companies go ahead of it. They remain faithful to the ancient Bremen motto, "Wagen und gewinnen" (Dare and succeed !)

This multiplicity of lines, this frequency of voyages, permits the lowering of freight charges. "Is it admissible," cry our manufacturers, "that the French consignor often finds it to his advantage to direct his merchandise to Hamburg, where it is loaded in a German ship bound for some American port, instead of being embarked at Havre or Bordeaux in a French vessel?" (1) It is unfortunately so admissible that German shipping is to a certain extent mistress of the traffic to our own colonies. (2)

This cheapness of German freights, which has as its conditions the abundance and regularity of transported cargoes, is partly caused by the activity of the German shipping agents. These agents, who are permanently established on the spot, and who know the country, are at one and the same time marvellous collectors of freightage for their companies and devoted servants of German exportation. "If by chance—and it

happens only too often—a merchant or manufacturer of a non-German country confides the carriage of goods to a German shipping company, the agent who receives them at their destination does not fail to turn this pointer to account." (1) He goes to see the consignee and offers him similar German wares. By a constant exchange of services, German industry gives the means of life to German shipowning by reserving it its transport, and the shipping company in its turn creates customers for the industry.

Among these customers there are some who prove costly, such as the passenger traffic, especially to North America. By inaugurating express services and offering passengers vessels which are more and more luxurious, veritable floating palaces, the German lines entered on a dangerous path. In fact, it was in order to check these sumptuary expenses that they thought to impose on their rivals the "ocean trust."

But, however heavy the losses have been which have been imposed by the exaggerated growth of tonnage, of speed, and of luxury, and by the excessive frequency of sailings on the North American service, these have not been absolutely dead losses. They have served as the most powerful advertisement for the German companies. (2) This advertisement enabled them to recover on their cargoes or on their less speedy and therefore cheaper steamers, what they lost, in virtue of the law of diminishing returns, on their leviathans.

The ports. What are the general causes that have favoured this growth? Here again Germany found herself entering into economic history at a time when the surrounding conditions became favourable to the country. During the period of small and moderate tonnage and of transports in irregular order, the advantage was held by countries with very extended seaboards and with numerous natural ports. With modern tonnages, which exceeded 20,000 tons at the

end of last century and which are now tending to 50,000 tons, the small harbour is useless, and numerous ports become an economic impossibility. (1) To the concentration of lines of transport there corresponds the concentration of points of entry and departure, the accumulation at a very small number of well-chosen places of enormous sums of capital in the shape of immense basins, gigantic docks, perfected plant. A modern port, with its railways, giant cranes, floating docks, elevators, and electric or hydraulic installations, is an apparatus so costly to erect and so burdensome to maintain that no State would be in a position indefinitely to multiply replicas of it. The essential thing is to give each of them the maximum of capacity and of power.

The two German coasts, unbroken and flat, were poor in natural harbours. They could only have estuary ports, the number of which was necessarily limited by that of the great rivers. The growing increase of tonnage has led to the doubling of these estuary harbours by high sea ports, new and burdensome installations which could not be established in any large number. Let us add that, notwithstanding the Kiel Canal, only the North Sea coast could be open to great oceanic traffic. In actual fact, export shipping found itself concentrated in two ports alone, and one will gain an almost sufficient idea of Germany's maritime expansion by studying only the first of them, Hamburg.

The German Empire did not have to create this port. It existed before the Empire, and its modern prosperity dated from the middle of the nineteenth century. M. Paul de Rousiers has recalled how Cromwell's navigation law and similar legislation by other European States had brought about the ruin of the Hanseatic ports by condemning them to coasting trade. The abolition of the Navigation Act in 1850 and the French legislation of 1867 reopened to the Hamburgers the limitless horizon of long-distance

shipping. It is true that Hamburg was not Germany, that it was until 1888 an economic islet, somewhat like one of those independent "emporia" which the Phœnicians, and after them the Greeks, established on a rock close to the shore.

But in its boundary as a free town, under the shelter of German Customs, guaranteed by its isolation against the fluctuations of German political economy, the Hamburg warehouse developed in full liberty on the British type. It is thus that Hamburg "found itself ready before Germany, and led Germany forward." (1) When it consented to join the Zollverein, one power placed itself at the service of another; overnight, as it were, the German export industries found in Hamburg their instrument.

This history has impressed on the activities of Hamburg (and also proportionately on those of Bremen) characteristics of daring and of confident audacity which it would be difficult to find elsewhere. The machinery with which these ports are equipped often makes the busiest historical ports appear behind the times and conservative. When it is a question of enlarging them, it is not done by means of successive and timid tinkerings, but by vast concerted operations to which one must apply the epithet colossal. Seven million pounds were spent at Hamburg in a trice, and a district of 30,000 inhabitants was displaced. Three months before the war, by adding to its high-sea port a more advanced high-sea port, the State of Bremen proceeded to complete the port begun at the northern extremity of Bremerhaven. (2) It sank on this work £3,300,000, the interest on which was guaranteed by the North-German Lloyd. This port will have a depth of more than eleven metres, which could be increased to 13·30 metres; as the famous 220-metre dam became insufficient, the new one will measure 350 metres in length. The Press announced that this port would be able to accommodate the *Lusitania* (which it had not yet been planned to send to the bottom of

the ocean), the *Mauretania*, the *Aquitania* and the *Imperator*.

By such works the Germans had succeeded in drawing back, up to the mouths of the Weser and the Elbe, the heads of the Atlantic shipping lines, previously localised in Western Europe. They were actually about to make the western ports, such as Cherbourg, mere calling places for sea-sick passengers on the route from Hamburg to New York. For merchandise the hinterland of the German ports grew to the detriment of the Dutch, Belgian, French, and even of the English ports.

The free ports. Is it necessary, in order to explain the exporting power of the German ports, to attach capital importance to their condition as free ports? (1) Let us begin by dissipating an ambiguity often caused by the very term Freihafen. In reality, since the entry of the Hanseatic Towns into the Zollverein, there are no longer in Germany *free ports* in the full sense of the words, but only *free zones* in some ports. A barrier surrounds some thousands of square yards of basins and docks (at Hamburg, more than 2,500 acres), and you have a free port; a barrier the gates of which may be freely opened for admittance, but which may only be left after submitting to Customs examination as if one came from abroad—in short, a patch of national soil, a volume of national waters, which is placed outside the national economic system, which is treated, to use a phrase from our ancient public law, " à l'instar de l'étranger "—as if it were foreign.

Can one create, in this exteriorised fragment of the country, industries which will receive their material free from duty? Experience answers in the negative. It is a rare occurrence for an industry to dedicate itself exclusively to exportation, to renounce deliberately the sale of its products in its native market. The only industries which are formed under the shelter of the barrier of the free port are industries of simple

and rapid transformation. For instance, if Hamburg has become a factory for the "manufacture" of wines and spirits of every variety, it is because the free-port régime is even more propitious to blending operations than that of the warehouse.

In short, the free-port industries are especially industries of management, manipulation, re-assortment and blending. The advantage which one finds by exercising these operations in a free zone is less the exemption from duties (the system of temporary admittance or of discharge against security would achieve the same result) than the exoneration from Customs formalities with all the attendant waste of time, and consequently of money, with all the possibilities of disputes which these formalities involve. The system of exemption serves Hamburg powerfully in its rôle as a distributing port.

It enables coffee, brought by transatlantic steamer from Santos, to be transhipped, in the open basin of the Freihafen, into a sea lighter which leaves for Riga. It enables foreign products to pass as German, thanks to the operations of sorting. It enables, for instance, the market in certain native products of French or even English colonies to be attracted to Hamburg. But if the free port is a powerful means of commercial concentration, it only plays a secondary rôle in the development of export industries.

The recruiting of crews.

Can we explain the rise of the German shipping companies by the existence of legislation relating to seamen, which is more flexible than ours? The leading authorities do not consider that our shipping is really impeded by the system of inscription[1]—an institution of a purely military order. (1) In reality, although the German

[1] French crews are recruited among the sea-coast population in accordance with a system which dates from the time of Colbert and which is called "inscription maritime."—M. E.

legislation lets the recruiting of seamen "be effected under the law of supply and demand," (1) the German shipowners employ chiefly German sailors.

The Empire would not tolerate that they should call on other Europeans, and the cheaper black or yellow crews are of inferior quality and need to be more numerous. If the discipline is better in the German merchant marine than in the French, this is due less to the state of legislation than to general psychological reasons.

Visible subsidies and secret bounties.

After it has been admitted that the German companies owed much to Customs or maritime legislation, they have been praised for having been able to do without the assistance of the State. They have also extolled themselves—no bounties—no subsidies! Let us see what truth underlies these enchanting appearances.

It is perfectly true that mail subsidies are rare and moderate. Bismarck obtained in 1885 a vote of £220,000 for the Far East and Australian services, which were then granted to the North-German Lloyd. In 1890 it was the German East African Line which received a subsidy of £45,000, increased in 1900 to £67,500. The American service of the Hamburg-American does not handle a subsidy; nor does the Deutsche Levante Linie. It was all very well for Riesser to write that in 1909 the various subsidised lines only received a total sum of less than £400,000, equal to 1.85 marks per ton register, less than the Cunard (1.95 marks), a mere nothing compared with the fat Japanese subsidies (24.70 marks), the Austro-Hungarian (27·70 marks), and the French (24.70 marks). (2) One can understand even less how a French writer, after having celebrated the "irreducible principle of diminishing as much as possible the assistance given by the State to shipping in the form of direct subsidies," could add that the German State has thereby "developed the energy and the competence of the

German shipowners by accustoming them to rely only on themselves." (1) In default of "direct" subsidies, the German companies are overwhelmed by the State with indirect subsidies, and it is "false to pretend that their competitors are protected while they are not."(2)

We already know the first form of these concealed subsidies—namely, combined rates by which the State railways make a partial or total present to the shipping companies of the transport charges by land on the goods which they embark. The Deutsche Levante Linie has no need for subsidies, because it is assured, *without a rate-book*, of abundant freightage at a special tariff. (3) It is also able to increase in enormous proportions the number of its steamers, the amount of its traffic. Its directors are not compelled "to rely only on themselves."

Protected emigration. But the Empire helps the companies again—especially the two great ones—in a more indirect and yet efficacious manner.

In the development of these two companies human cargo—emigration—has played a leading part. Historically speaking, the German mercantile marine was helped by the poverty of Germany.

At the time when Hamburg was resuming contact with ocean life, Bremen was becoming rich by exporting the only product which after 1848 Germany could supply to foreign countries in wholesale quantities—thousands of peasants who left their homeland to colonise the Middle West of the United States and the South of Brazil. The Bremen ships left their port laden with men and returned with cargoes of cotton. About 1880–1883 this German flood spread over the world sometimes represented a yearly total of 200,000 people.

Since Germany became industrialised this flood has ceased, and German emigration is now only a tenth of what it was. And yet the human freightage is far

from having diminished in the Lloyd and Hamburg-American liners. In 1907, 400,000 emigrants left the two German ports. Though the American crisis caused this figure to decline to 55,000 for the first half of 1908, it varied during latter years between 300,000 and 400,000. *Only the emigrants no longer came from Germany.*

With the exception of Italy, the great reservoir of European emigration is at the present time Eastern Europe: Russia, Galicia, Roumania, and the Balkans. Now the German Government renders the Bremen and Hamburg companies the service of driving towards them, by artificial and administrative measures, this immense human flock. In the first instance, at the Prussian north-eastern and eastern frontiers, and later even at the southern frontiers of Germany, the State authorised the shipping companies to establish stations for the control of emigrants. (1) Here they are examined from the double viewpoint of contagious diseases and of "desirability," and the emigrants can only continue their journey across Germany when provided with certificates of examination and of disinfection. (2) But in actual practice the German companies refuse to disinfect the passenger and grant him a certificate unless he has taken his ticket by their own lines or by one of the allied lines. Those passengers who carry tickets of English, French, and other lines are stopped—like livestock among which a strict Customs official suddenly diagnoses foot-and-mouth disease or trichinosis—and sent home if they are unable to purchase a new ticket valid on German lines.

The inquiry admirably conducted by the Cunard Company (3) has shown how the German companies, in order to revenge themselves for the contract signed by the Hungarian Government with their English competitor, arranged, with the connivance of the police, to send back twice in succession from the frontier to Cracow, the bearer of a ticket for America via Liver-

pool. And yet the Cunard had secured a licence to establish an emigration agency in Germany, and had deposited against this document a guarantee of £5000. In appearance the English company was thus placed on a footing of equality with its German rivals. (1)

What is the value of the present graciously made to the two companies by the Imperial Government? It would not be exact to say that each emigrant, at an average price of £6, yields them a profit of £4 per voyage, but it diminishes by £4 the working charges. Thus the State assures these two companies of £1,200,000 to £1,600,000 *a year* by the monopoly of eastern emigration.

As their total capital is round about £12,000,000, one may say that this capital is remunerated by this disguised subsidy. And if proof is required, we will point out that in consequence of the American crisis of 1907, which reduced the number of departures, the dividends of the two companies fell sharply from 8 and 10 per cent. to nil. (2) So true is it that emigration is an essential element of their prosperity, and that the veritable "guarantee of interest"—at 10 per cent.—which is assured to them by the Empire is one of the reasons which enable them to lower their freight charges and consequently to provide German industry cheaply with means of transport.

CHAPTER IV

THE RÔLE OF THE STATE

In order to study the rôle of the State as an auxiliary to German exportation, it is necessary to rid ourselves of our ordinary conceptions and not try to compare things which are not comparable. A French or English manufacturer may at times express regret that he does not enjoy protection as efficacious as that of his Silesian, Rhenish, or Saxon competitor. But he would not endure for five minutes the administrative tutelage, the veritable domestication, which is the price of these favours.

What the Prussian-German State is.

The State, the power of the State —synonymous terms because the State is Power—is everywhere in Germany. (1) We have already met it, this power, at the summit of the banking organisation. We have already had to depict it holding the balance between the industries and between the cartels, facilitating dumping, and even creating a special form of it—agricultural dumping. We have seen how the State, as organiser of transports, by differential scales of charges artificially assists the development of certain regions or the growth of certain factories. We have described the powerful support it brings to the shipping industry.

Modern Germany is essentially a State.

It is important to recall again and again the historical and logical root of this conception.

In the other countries of Europe, the nation—or the

civil society, as Treitschke says, after Guizot—existed before the State. Little by little there was distinguished and developed in the nation an organ of centralisation and of command; it finished by absorbing some of the functions which the civil society was no longer able to fulfil. In other words, the State possesses all the functions, and those only, which civil society has not retained for itself, and has particularly conferred on the public authority by an explicit or tacit concession. The very antiquity of the State, in the case of old nations, is the cause and the explanation of the limits of its power.

Quite different has been the history of Germany in the last three centuries. This geographical expression did not imply a "nation," and the Germans, notwithstanding vague aspirations, did not succeed in condensing themselves into a State.

The fragmentary States scattered over Germany were only an obstacle to unity. Treitschke was right in crying "Wir staatlosen Deutschen!" (We Germans without a State).

But among the German States there was one which was really a State—in fact, nothing but a State. No one would dream of speaking historically of a "Brandenburg-Prussian nation." The Brandenburg-Prussian State, which was artificially modelled after the national States of Western Europe, is a pure form, void of all national contents, which imposed itself on dispersed and dissimilar peoples, and which alone gave them unity. It has since by analogous procedure imposed itself on the whole of Germany. Elsewhere it was the nation which by organic differentiation created the State; here the State created the nation, and by a completely natural reaction against that "Staatslosigkeit" (absence of State) from which they had suffered so much, and also as a consequence of their innate love of order and discipline, the Germans came to venerate the all-mightiness of the State.

Economic dictatorship of the octopus State.

This all-mightiness asserts itself in every sphere. To military and political domination there is added economic dictatorship.

The Prussian-German State is still, as we have said, possessed by the conception of paternalism, of Colbertism. Or rather, this conception, renewed by the touch of industry on the great modern scale, has, under the pen of List, become that of national economy.

But if we imagine the doctrine of national economy introduced among a people, the Prussian people, for whom war was and still is the essential and preferred industry, and this doctrine imposed by that people on a whole group of men whom it subjects at the same time to a quite military discipline, we will then have an idea of what in Prussianised Germany may be the relation between industry and the State. It is not for the mere pleasure of astonishing the Philistines and the foreigners that the Ninety-Three[1] establish a logical connection between German militarism and industrialism.

Between the Imperial State and German industry an alliance is very soon concluded. At an early date the equilibrium is broken between the old Prussia beyond the Elbe, the land of poor country squires, and the Rhenish countries. Bismarck, risen from that poor squire class, is already obliged to defend himself against the accusation that he is doing too much for industry; he has to invoke for his defence the necessity for enabling the working classes to live. (1) But if the agrarians protest, if they try to oppose the excavation of canals, and even the construction of broad-gauge railways, the industrial party in its turn chides the Government, accuses it of being the slave of the "feudalism of the great landowners, of clericalism and of bureaucracy," and reminds it of the services rendered to the Empire by industry. (2) When during the "canal war" Wilhelm II tried to

[1] See note, p. 37.

place his sceptre in one of the scales of the balance, he discharged a debt. Notwithstanding the obligatory politenesses which authority concedes to the "Junker" party—the Conservative party *par excellence*, the party more royalist than the King—the Empire is before all else commercial and industrial, and becomes so more and more. (1) Lamprecht put it in a nutshell—industrialism and imperialism "go together."

Under these conditions it may appear trifling to devote a special chapter to the rôle of the State in the German expansion. We can trace the action of the octopus State in every manifestation of this expansion. On the other hand, it is not superfluous to collect and collate the details already known, to gather from them a general survey, and to add other details. It is perhaps just in these details that States very different from the German State will still be able to find some examples to follow.

Among these examples we will not find that of a less burdensome zeal on the part of the fiscal authorities. Germany is no more a country of light taxation than of low wages. The State protects the nation's industry, but it takes care that the latter brings in revenue. (2) It imposes on industry, besides, in the form of compulsory insurance, social charges of an enormous and increasing weight.

The first economic characteristic of the State—especially if we view the Empire, Prussia and the principal German States, as a single entity—is to be a considerable economic personality. As owner and exploiter of railways, it is the largest employer in Germany, (3) the greatest consumer of coal, and practically the only purchaser of rolling stock. At one and the same time a transport contractor, a military Power, and a naval Power, the State is one of the chief customers of the metallurgist. The monopoly and the transformation of canal towage have just conferred on the State a direct hold on the electrical industry.

This power of consumption enables the State to render a signal service to industry; during critical times, as, for instance, in 1900–1901, it modifies the crisis by maintaining its orders for guns, rails, wagons, and warships. In distributing work to the national factories it does not await the periods of over-activity when the factories are already "out of breath." It assures them of the bread of evil days. Consumer, the State is also producer; it exploits mines which are its own property, fiscal mines. The State is not only a customer of industry; it is an industrialist itself.

The industrial State. This industrialist is opposed by others whose grouping in syndicates we have already studied. What attitude will it take towards these syndicates? Will it be within or without? Will it join them or combat them?

On this point the doctrine of the State has performed evolutions. We have already seen how the State, as the born protector of consumers—that is to say, of the whole of its citizens—was at first somewhat unfavourably inclined to the cartels, at a time when the cartels were almost exclusively designed to fight against the fall of prices. Even after the inquiry of 1903 Schmoller still asked—and in a tone which prejudged the answer: Is it the State or the coalition interests who are to dominate the life of the nation? But already, like a good, disciplined German, he proposed a reform of the cartels which would place them under a kind of State control, with a division of profits over and above a certain percentage.

His ideas made such progress that in 1912 there was talk of an imperial law on cartels as already in preparation: a projected creation of an imperial department of cartels analogous to the office of insurances, examination of statutes, surveillance of operation, representation at meetings by delegates of the State—briefly, a whole system for the nationalisation of cartels. (1)

The State and the cartels.

In short, one could summarise the history of the relations between the State and the cartels in three periods—

1. The State, a public power and an industrial personality, fights the cartels.
2. The State penetrates into the cartels.
3. The State takes the management of the cartels, protects them, and tends to absorb them.

Struggle, agreement, domination—these are the stages. But, in describing this scheme, it must not be forgotten that the evolution did not proceed at the same pace in every industry.

Period of struggle.

The period of struggle is best studied in the sphere of coal production. (1) When in 1902 the State abruptly purchased already existing concessions in the Sarre basin, so as to swell its mining territory, it was in order to defend the public and itself against the power of the syndicates. The railways were at the mercy of the syndicated companies, which delivered to them in 1900 nearly 2,700,000 tons against 350,000 tons supplied by the State mines. By opposing to the syndicate the competition of the State exploitations, it was hoped to exercise a regulating action on prices.

But the State mines, even when augmented, did not represent a tenth part of the total production. It was then, in 1904, that the State resolved to purchase the Hibernia mine, which alone supplied 7 per cent. of the Westphalian output.

The State proceeded in the manner of a bank or company which absorbs a rival by means of a "fusion" —it took shares in exchange for Government securities.

This was an epic and grandiose struggle between the King of Prussia, coal merchant, and the coalition coal-kings. The Dresdner Bank sided with the State, Bleichröder and the Disconto with the syndicate. Formation of a "consortium," law-suit, discussions in the Prussian Chambers, purchase by the State

of the block of shares held by the Dresdner—the State, after these striking changes of fortune, remained nevertheless in a minority in the general meeting of the company; it did not yet succeed in playing, in these unions which it proclaimed as dangerous, the rôle of "dominant adviser," of which the Minister Möller had dreamed.

Period of penetration. One might have supposed that the State would continue to fight against the syndicate. It preferred to enter it as an exploiter. The relations between the two powers, moreover, are not always smooth. In 1912 the administration of the State mines of the Ruhr decided not to renew its convention with the Rhenish-Westphalian syndicate which was shortly to lapse, on account of the increase of prices fixed by the syndicate notwithstanding the objections from the representatives of the State.

In particular, the rise in house coal and the outcry it raised placed on evidence the contradiction between the interest of the industrial State and the duties of the State as a public authority. (1) The cartel resisted, and even declared that it was difficult to agree with a partner who was such a bad business man. (2)

The potash syndicate. Quite different was the attitude of the State in the history of the potash cartel. (3) Here Germany found herself invested with a "veritable geological monopoly," and the principal sources were the State mines; those of Stassfurt belonging to Prussia, and those which were owned by the duchy of Anhalt. Over-production and the rapid fall of prices in 1879 led the Prussian State, notwithstanding the resistance of the neighbouring duchy, to promote an agreement between four mines. Limitations of output, determination of the factories to which the raw product may be sold, fixing of minimum prices—these form the whole policy of cartels which is applied here on the initiative of the

State itself. It is the latter which renews, modifies, and enlarges the original convention, creates in 1884 a compulsory sales bureau, presides over the committee of management and the arbitration commission. Only in this instance the dumping is a case of reverse-dumping, because the State has to defend the agricultural interests, to reserve as far as possible for Germany the manures she requires, and to raise the export prices.

This policy of high prices came into conflict with facts: new borings led to the development of private competition, while the discovery in Alsace of the enormous deposits of Nonnenbruch was even more menacing for the future. Consequently, on June 30, 1909, when the convention expired, two factories concluded a contract with the American North Trust at prices lower by 37 per cent. than the syndical quotations; another factory, three-quarters of whose capital belonged to the South Trust, also refused its adhesion. English and Belgian capital forced its way into the factories, and the syndicate was only renewed provisionally. Germany had in consequence "to pay more dearly than all her competitors for a product of which she has the monopoly."

Period of domination. Then there was submitted to the Bundesrat a Bill for an imperial law which proposed: maintenance of the old syndicate, which was to become compulsory; measures against over-production; prohibition of the opening of new mines. These draconic measures were somewhat relaxed in the law voted in 1910. There remained, however, the syndicate, obligatory for fifteen years; a committee of distribution in which the State has three representatives (including the president) out of seven, and which limits the total output each year, the amount of internal consumption, the quota of each mine; and in addition a whole series of measures for discouraging new mines.

Between the battle against the Kohlensyndicat (coal syndicate) and the organisation of the Kalisyndikat (potash syndicate) into an officially recognised establishment there is room for many shades. In general the State considers itself as the protector of cartels; it furnishes them with "a formal or tacit support." The action of the Prussian State, for instance, on the constitution of the cartel of railway locomotive manufactures of North Germany is decisive. (1) It agrees to pay inland prices which are higher than the export prices; it undertakes to purchase nothing abroad, and the distribution of orders is made at the Ministry itself. In consequence the State imparts to its orders a regularity which assures the factories of practically constant work. With less of the spirit of association, and less administrative rigour, the States of the South reserve their orders for the southern cartel, and in preference to the factories in their own territory. There was a scandal when in 1899, at a time of intense activity, Bavaria ordered some engines in Belgium—such a scandal that its repetition is a moral impossibility.

The alliance of the State and the cartel tends to constitute in favour of the latter an actual monopoly, and the monopoly in its turn tends to become transformed into a State monopoly.

Towards the compulsory syndicate.

This last transformation failed to materialise in 1912 as far as petroleum was concerned, and if the Government project miscarried, it was not because the principle of the law was contested even from the side of the Liberals; arguments based on facts alone were raised in opposition. (2)

Similarly the war has now had the effect of mobilising the obligatory syndicate. (3) Faced with the fear of the breaking up of the Kohlensyndikat, a decree of the Federal Council of July 12, 1915, authorised the confederate States to form compulsory syndicates for

coal-getting. On July 16 an ordinance of the Prussian Ministry threatened to exercise this right for the districts of Dortmund and Krefeld, if by September 15 the coalowners should not have agreed voluntarily to form a syndicate. All the mine-owners would become *ipso facto* members of a new Syndikatsgesellschaft, the organisation of which would be determined by official regulations. The council of this company would not be a free emanation of the syndicate, but an organ of the administrative authority. It was this authority which would say whether and to what extent the mine-factories were to utilise their own production, which would ratify home and foreign prices, etc. In a stronger form it was the system of the potash syndicate applied to the largest of the extractive industries.

The menace of such a bondage sufficed to convert the recalcitrant owners. But the menace exists as an indication of the light in which the State regards its rights over the cartels. What a distance has been covered since the time when the State mines humbly tried to obtain for themselves a place by the side of the syndicated mines!

The imperialistic policy at the service of the expansion.

It is not only in favouring the productive forces that the State stimulates exportation, but in a more direct manner. The imperialistic policy—Welt-politik—is at the same time a policy of business and of power—Handels und Macht-politik. (1) At the service of German exportation the German Empire places this imponderable factor: prestige.

Many a cartoon has depicted the Imperial commercial traveller scouring the East in the garb of a Crusader to place guns and locomotives. But what Wilhelm II did in 1898, German diplomacy and the German Consular Corps were doing every day. The German Navy especially, during fruitful cruises, was a means of displaying in peace time the Imperial standard on seas where German interests were arising.

"Keen, indefatigable," always on the watch, the Imperial diplomacy does not allow any opportunity for serving its interests to escape. Every modification of the internal or external economic conditions of a foreign country becomes, in its eyes, a pretext to intervene, to complain of injury, to claim compensating concessions.

Does it please the Swiss Confederation, by an act of free sovereignty, to repurchase the Gothard railway? Germany pretends that her rights are affected; she invents a most audacious theory and demands a bribe to stop her outcry. Double bribe: not only does she guarantee herself for ever and a day the "most favoured nation" rates for transports across the Alps, but she compels the Swiss Federal railways to make accessible to contractors of all countries the right to tender for supplies for the electrification of the line. For those who know the dumping methods of the Germans it is almost unnecessary to say that the contract is awarded in advance to the secret cartel controlled by the firm of Siemens. Has not a Berlin house already secured the tunnelling of the Hauenstein because it quoted prices lower by £120,000 than those of its Swiss competitors? Already the federal railways have treated with a Mannheim firm for the piercing of the second Simplon tunnel, without public outcry and intervention of the Federal Council.

When the imperial diplomacy granted loans—loans the money for which was often supplied to the German banks by foreign banks—they were granted against the placing of orders. This same diplomacy turned to account the momentary embarrassments of its adversaries (as in the case of Russia in 1905) to impose on them commercial clauses which opened wide the doors of the country to Germany. Let us recall the policy of Kiderlen-Waechter in Morocco and on the Congo, "the asperity, the tenacity, and the brutality" with which he wished to impose on France economic agreements all to the benefit of Germany. (1) The Minister

of the powerful Empire made himself the mouthpiece of the Kohlensyndikat and of the Stahlwerksverband, and it was thus necessary to look in the *Rheinisch-Westfälische Zeitung* for the real thoughts of the German Government.

Not the least among the causes of the present war is the intention ascribed to Russia of not renewing in 1917 the ill-omened commercial treaty of 1905. Another is the German desire to repair in the district of the "minettes" the Bismarckian error of 1871. The capital cause is the impassioned ambition to take away from England the economic domination of the sea.

Finance, industry, policy—these three forces are indissolubly allied in the Empire, and they render each other reciprocal services. (1) One must also recall the tone adopted by the various economic leagues in their conditions formulated to the Imperial Chancellor in the famous memorandum of May 20, 1915: Briey and the district of the "minettes," the coal mines of the North and of the Straits of Dover, a colony in Russia, and colonies oversea. War must be a business, a satisfactory business.

Customs policy and Article XI of the Treaty of Frankfurt.

War, with the negotiations which may lead to war, remains an exceptional fact, but Customs war is a matter of daily bread. Did not the German Customs Empire precede the political Empire? It is thus quite natural that the export industries demand from the State an efficacious Customs policy.

This policy, from 1871 to 1914, has been dominated by one great fact—the existence of the Treaty of Frankfurt. (2)

This is no place to re-write the history of the negotiations of 1871, to repeat that Pouyer-Guertier and Favre considered it a victory to have imposed on Bismarck the insertion in the treaty of the "most favoured nation" clause. Bismarck wished to give a new lease of life to the treaty between France and the

Zollverein which was to expire in 1877, and to prolong it till 1881. By Article XI, our plenipotentiaries preferred to perpetuate the "most favoured nation" clause by limiting it to six nations which were the only ones then to vie with one another in the arena of industry.

This Article XI was at first favourable to France, who profited by the tariffs conceded by Germany to each of the other six nations. But when in 1879 Germany entered on a protectionist phase, she in her turn found herself benefiting, in her importation into France, from all the concessions which we might make to one of the Six, without granting us anything in exchange. Though this article guaranteed us against the formation of a Central European Zollverein, it helped us in no way on the markets which were of no account in 1871, such as Italy or Spain, or such as all the extra-European countries, notably the United States.

As a matter of habit we conceded to these States the "most favoured nation" clause, which had become, so to say, a purely formal clause. Thus was erased the distinction—to a certain extent protective—established between the Six and the others by the treaty: the Imperial diplomacy, always on the alert, claimed the benefits of every concession made to third parties, even when these concessions had no bearing on Customs tariffs. (1)

Inversely, Article XI often created tension between France and other States, even if of the Six—because such and such a raising of tariffs directed by us against Germany injured some third nation. Germany profited by this tension to take our place on that market, and in consequence in the hour of reconciliation she benefited from our concessions.

It is true that the clause was reciprocal. But Germany found the means, if not of rendering this reciprocity futile (this point has at times been exaggerated), at least of restraining its scope to a remarkable extent. The best-known method is the

specialisation of duties. There seems no doubt that the specialisations inserted in the tariff of 1902 were "inspired by the desire to evade Article XI."

The treaties concluded by Bülow in 1904–6, which extended the "most favoured nation" clause to forty-one States, have multiplied these strict definitions which can only advantage the red wines of Italy or Marsala or Tokay, Belgian or Austro-Hungarian horses, Swiss cattle, etc. The method was so efficacious that there was only one cause for complaint in Germany: the insufficiency of its application; and in 1914 the Government was asked to lengthen the list of specialisations. In this manner Germany—while preserving appearances respecting Article XI—would have been able nevertheless to realise to a certain extent a Central European Zollverein.

To these specialisations were added vexatious methods of analysis, particularly in the case of wines, and those differential transport rates of which we have already spoken. These measures, however, are negative, designed to fight against importation. The German fiscal policy permits a positive procedure, thanks to the notion of the *Veredelungsverkehr*—the work of perfecting. In theory there is nothing here more than our system of temporary admittance or of Customs permits, but applied on a far larger and more general scale. The "well-known rigour of the tariffs" relaxes as if by magic, or these tariffs even disappear in favour of pig-iron, textiles, wood, and food stuffs, when these materials are re-exported after they have been transformed or subjected to supplementary processes of manufacture.

Wood from Russia, cocoa, rice, oils, wax, tobacco from the East, from Russia, and from America, thus leave Germany under very favourable price conditions, thanks to a system analogous to that which we have described in the case of cereals—that of Einfuhrscheine (importation certificates). (1) Here we find combinations of infinite flexibility. In short, every German

factory may become a kind of warehouse, a "free port." The most typical example is that of the Turkey-red dye works of Elberfeld; the yarns which they receive from Switzerland under the cover of the drawback are dyed in special halls under the surveillance of Customs officials whom the factory remunerates; these halls are sealed every night and the yarns forwarded on as soon as they have been dyed. The same system exists for Indian prints.

The firm thus constituted into a free warehouse pays off periodically in a lump sum the different duties appertaining to the quantities delivered in the interior of the country. But everything which leaves the padlocked factory to be re-exported is exempt from all duty and from every formality, with the exception of the control exercised by the Customs inspectors.

In this way also the lowering or the suppression of duties on unfermented wines, or wines to be "champagned," on wines for brandy, on cider apples, has enabled new industries to be created from their initial stages.

This system may go so far as to the legal organisation of fraud. For instance, Article VII of the law of April 7, 1909, enacts that a diluted wine may be designated after the dominating portion of the mixture. From this there has emanated during recent years a considerable traffic which consisted of buying whole wagons of vintage in the reputable crops of the Côte d'Or, of mixing them to the extent of 49 per cent. with German grapes, and of baptising the result "burgundy."

Scientifically worded advertisements even informed the Dutch, Belgian or Scandinavian public that German chemistry, applied to the products of the Burgundian soil and sun, resulted in wines very superior to those with which the well-known ignorance and uncleanliness of the French winegrowers could provide them. "Vive donc le 'bourgogne allemand'!" (1)

Let us, however, do justice to the German Customs system, even as to the other German administrations. It is not a useless busybody, it does not obey the principle of a blind zeal for the Treasury, it does not necessarily see an enemy in every one amenable to its jurisdiction, and more especially it makes every effort to proceed quickly, to settle disputes with rapidity. (1) These are rare merits. In this domain, as in the others, the guiding motto is to promote the industrial and commercial rise of the German people.

Not only in outward show, by verbal demonstration, has the Empire placed itself at the service of the policy of expansion. The relations between a William II and a Stumm, a Helfferich and a Ballin are not a symbol. German protectionism tries to keep the balance between the agrarian and the industrial interests, (2) favouring the one and the other, provided that these various branches of national activity serve the Imperial plans of universal domination.

PART III

THE CONQUEST OF MARKETS

WE have attempted in the foregoing pages to analyse and to measure the forces—or, at least, the chief among them—which have assured the economic expansion of Germany. It remains for us now to view these forces in action, to see them no longer isolated some from others, but united in a common task, to study their modes of application and the results of their effort.

This descriptive part of our work—and the easiest—will also be the shortest, because it is that portion of the subject which has been best elucidated by the majority of writers. How the Germans prepare themselves for the economic conquest, how they proceed to the study of markets, how they penetrate into markets and institute a siege of the customers, how to this commercial penetration they add industrial penetration—that is what, after others, we would wish to sketch.

Our ambition will be to bring a little order and light in this immense detail of facts.

CHAPTER I

THE SYSTEMATIC STUDY OF MARKETS

Services rendered to German industry by German emigrants.

WHEN Germany, becoming an industrial nation, ceased to export men in order to export goods, she profited at once from the fact that her children had swarmed abroad in dense masses.

During the dark days of 1849 when the Hamburger Kolonisationsverein created the first colonies in South Brazil, it set itself simply to settle a social question of internal order, to fight against pauperism. It did not imagine that a veritable German community, with German villages, German schools, and German newspapers, would be born and would prosper in the States of Santa Catarina and Rio Grande do Sul. (1) The millions of Germans who streamed towards the Middle West, to Chicago and to Milwaukee, were considered even more hopelessly lost to Germany.

Thanks to this formidable emigration—which from 1866 to 1874, and then again after 1880, assumed "enormous dimensions"—it happened that Germany, on the morrow of her sudden industrialisation, found in every corner of the globe groups of customers ready to hand, speaking her language, accustomed to her products, fully disposed to sound their praises abroad—in short, armies of consumers and commercial travellers. On the American lake towns, where the Germans form half and three quarters of the population, in Southern Brazilian villages whose names—Blumenau, New Württemberg, Bismarck—give sufficient indication of their ethnical composition, in Chile, Australia, and South Africa, compact groups of Germans awaited

German merchandise. Those spontaneous colonies have been an initial base of operation for German commerce.

"Deutschtum" abroad.

It is true, it was said that the national consciousness was rather lax among these men who had left Germany to escape from distress, from political servitude, and from the stagnation of the petty German States. But the prestige of victorious and unified Germany acted on them also. In Germany a learned legion even set itself the task of re-imbuing these *disjectæ membra patriæ* with the sentiment of their national solidarity. The geographers of the Pan-German League (Alldeutscher Verband) devoted themselves to a painstaking inventory of the German swarms scattered across the world: maps, atlases ("Alldeutscher Atlas"), books and reviews ("Die Deutsche Erde") located, classified, and catalogued the smallest villages, stations, trading settlements, and missions which might be considered in the light of outposts of "Deutschtum."

These Germans whose denationalisation it was sought to prevent, and whom it was often necessary to re-nationalise, were helped to form those societies in which the disciplined spirit of the Germans delights. They were given schools. While in France the courageous founders of our Alliance Française had all the trouble in the world to drive into the brains of our manufacturers and merchants the elementary truth that the diffusion of our language is one of the essential conditions of our commercial expansion, similar organisations in Germany—the Deutscher Schulverein and its consorts—became very strong at once. One of them—Deutschtum in Ausland (Germanism Abroad) is a power. The State never haggles when it is asked for financial support for a school or college, (1) for the State considers itself not only as the sovereign authority of the German Empire, but as the directing organ of that amorphous mass, floating and all invading,

which is called "Deutschtum." As Lamprecht has written, "The Empire as a body politic does not stop at its frontiers. . . . It may be called *the tentacular Germanic State.*"

This restoration of the German consciousness among the millions of Germans abroad has had commercial consequences of incalculable value. Not the least among the causes of the fact that Germany supplies more than 52 per cent. of the total Russian importation is the presence in Russia of 1,800,000 inhabitants of Germanic origin, "a medium particularly favourable to German expansion." But even if they are ignorant of the Russian language, the German exporters in their own tongue "succeed . . . in making themselves sufficiently understood in those regions which are the most populous, and thus the most commercial." (1) There are more than 30,000 Germans in the Netherlands, 70,000 in Belgium, without speaking of the naturalised (2)—and we know what a naturalised person is since the Delbrück law.[1] Moreover, in that hospitable and unforeseeing Belgium, which was to pay so dearly for its welcome to foreigners, the "petite naturalisation" permitted foreigners to take part in elections—communal, provincial, and "consulaires"—to belong to the Civil Guard and to receive promotion in it! (3) So much so that in Antwerp, where along the Scheldt the docks of the North-German Lloyd, the Hamburg-American, and the Kosmos stretched side by side—in that Antwerp where the German gymnasium, the innumerable German societies, German libraries, and even the German Sailors' Home (Deutsches

[1] Mr. McKenna, in the House of Commons (September 16, 1914):—"Section 25 of the German Nationality Law of 1913 provides that a German loses his nationality on acquiring a foreign one unless he is domiciled or permanently resident in Germany. In neither of these cases would he be granted naturalisation in the United Kingdom. The German law also provides that he may retain his German nationality if he has obtained written permission to do so from his Home State before acquiring a foreign nationality."—M. E.

Seemansheim) kept alive the all-powerfulness of Deutschtum—in that Antwerp from which the fancy goods house of Tietz radiated to Brussels, Liége and Malines with its branches—it came to pass that the invaders were received by German officers of the Belgian Civil Guard !

And if to-morrow the Germans entered Rotterdam they would find the banks of the Meuse occupied by German firms—as they found in France the approaches of the Epernay railway.

Were there not more than sixty German societies in Paris in 1908—one of them a branch of the Navy League ? (1) Official statistics estimated the number of Germans in Paris at more than 30,000, and for the whole of France at 90,000 to 100,000. But more comprehensive calculations placed the number of Germans in Paris alone at over 50,000 and in France at more than 200,000. The number of schools, the three Protestant and three Catholic "parishes" in Paris, and "parishes" at Lyons, Marseilles, and Bordeaux, tell us enough of the importance of this colony.

We have not to occupy ourselves here with the political and military consequences of such a state of affairs. We state only that of these 200,000 persons a large number were necessarily bound to prefer German products to French products, that they formed a nursery of representatives for German manufacturers, that they furnished the commercial travellers from Germany with first-class auxiliaries and intermediaries. The Germans abroad were excellent "indicators when they were not beaters-up of business." (2)

Thus, thanks to the steps taken systematically to strengthen the sentiment of Germanism among the emigrants, the "loss" which Germany had suffered from the fact of this emigration was transformed into an "augmentation of power and domination, and that from the point of view of ideas, of civilisation, and also from the economic standpoint." (3)

All the more so from the fact that the German emigration has not only varied in quantity but has also completely changed in character. We must no longer speak of the peasant emigration, as we have pointed out before. The most passionate Pan-Germanists accordingly build their calculations, as does Liebert, "on the intellectual portion of our emigration, on those who have studied in the schools, on merchants, business men of every kind, technical men, mining engineers and planters, who are unable in Germany to elbow their way forward owing to competition, and who overseas"—or even, we would say, over the frontiers—"find favourable treatment or good profits."

Wherever they settle, these emigrants of the new class arrive on soil already prepared by the German masses, they fall into pre-existing groupings, and they are not isolated.

Study of markets. Is it the long establishment of relations with these groups of Germans abroad which has driven the Germans to practise at home the systematic study of markets? I rather think that here once more we touch one of the essential peculiarities of German psychology.

The Englishman thinks empirically. In the course of his life, by contact with reality through a series of experiences, he acquires, completes, corrects, and co-ordinates the notions which are useful to him.

The Frenchman thinks intuitively. Armed with ideas which the general culture has implanted in him, he very quickly perceives the connection between things—contenting himself at times with superficial connections; he adapts himself very speedily to a new situation, and in consequence relies very easily on this marvellous faculty of adaptation. He is an improviser; one might say of him, without too much irony, that he knows everything without having learned anything; moreover, he is not altogether con-

vinced that it is indispensable to have learned in order to know.

The German thinks methodically. Practical problems are for him scientific problems, to be studied and solved as such.

Given a market to conquer, he proceeds like the General Staff, like the Military Academy studying a strategic operation. Climate, products, systems—political, social, monetary, and Customs—organisation of transports; psychology of the inhabitants, their taste for the simple or the luxurious, their love of the solid or of the flashy, their connections with their present suppliers, and the means for supplanting these suppliers—these are the elements of the problem. It is necessary to know them thoroughly, to catalogue them, to register them, to compare them with the analogous elements of already known problems, before attempting their solution.

On the day when the German possesses the essential details, he will be able to write to a merchant of that country to make him offers; will write to him in his own language, and in the commercial style to which he is accustomed; will suggest to him articles suitable to his needs and his tastes; will ask for payment in cash, cheques, or bills according to the usages to which he is accustomed to conform, at dates which are convenient to him, even as the date of the delivery of the goods must be convenient to him.

Technique of Exportation.

All this is to be learned and taught. It is the technique of exportation. The Commercial Schools, the Höhere Handelsschulen, the Handelsakademien, and the commercial universities are there to dispense this science even as the Polytecknika teach applied chemistry or electrotechnique. The Professor of Commercial Science is considered as an expert on the subject, as an adviser to be listened to, quite as much as the specialist in dye-stuffs or in pharmaceutical products.

Besides the union of the factory and the laboratory, it is also necessary—in order to gain a complete idea of the scientific organisation of German exportation—to indicate the union between a business director's office and the library of the economist, the jurist, the geographer, and the historian.

The information service.

To constitute this technique of exportation, to keep constantly up to date the index cards on which this systematic study of markets is inscribed, it is necessary to possess services of perfected information.

Consuls and commercial attachés.

The first step, in Germany as everywhere else, is to apply to the agents of the State, and especially to the Consular Corps. The State surrounds itself with Commercial Councillors — Handelssachverstandige, trade experts, analogous to our Councillors of Foreign Trade.

At the instance of the Bund der Industriellen it founded a bureau for the growth of exportation. (1) It has in the principal towns Consuls by profession, business men rather than diplomatists, who are not packed off from Rabat to Hayti and from Hayti to Teheran. The German Consuls are numerous, well paid, and seconded by a staff which relieves them from drudge-work and from tedious office routine. The German Consulate at Petrograd had a budget of £10,000, and seventeen employees; the French Consul received £640, and had two or three employees. The consular agents are always Germans, and they are indemnified for their outgoings. (2) Let us add that all these agents busy themselves in the German interests with a zeal which would be considered indiscreet in agents of no matter what other Power. (3)

And yet—and yet the German merchants complain, like our own, of the insufficiency of the Consular Corps, regarded as a source of information. In the case of Germany, as of France, and in imitation of

France, efforts have been made to remedy this insufficiency by the creation of commercial attachés. M. Blondel (1) recorded at the beginning of 1914 the creation of thirteen attachés, but he added: "The exporters do not appear, up to now, to be much helped by the attachés. Some go so far as to contend that these are a detrimental institution." The activity of German commerce, they say, is so rapid that it always outstrips that of the most specialised officials.

Agencies: Commercial espionage.

It is, then, by other means, emanating more directly from themselves, that the merchants receive their information—not, like the French or other nations, by the creating of German chambers of commerce abroad, but rather by special societies which in their services combine the theoretical and practical study of markets with information—in the purely commercial meaning of the word—about the foreign clientèle.

In this way the Union of Societies of Credit Reform keeps constantly up-to-date a system of card indexes on the solvency of firms, and affords its 70,000 members, grouped in 370 societies, every facility for the collection of debts. The union, founded at Mainz in 1881, has its headquarters to-day at Leipzig. In 1911 it had 380 branches and 320 representatives. It is in truth an information exchange. (2)

Still more directly the Export Bureau of the Deutsche Export Bank busies itself with the affairs of its clients, indicates markets to them, suggests to them operations to be attempted, sends out travellers and organises exhibitions. For an average yearly subscription of £2 10*s.*, it addresses to them both information on request and periodical communiqués. The *German Export Review* is an emanation of the Export Bureau. To its overseas editions it annexes a form of questions destined for the business houses of importing countries which "wish to develop their commercial relations in Germany." These houses are begged to

return the question form, duly filled in, to the offices of the review, "which will put them in touch with the leading houses in that branch." The correspondents are enjoined to add references to their answers and to circulate the question form among their friends. Thanks to this snow-ball procedure, the review comes to be a register of the first class.

Each bank, it will be recalled, has its own register. In the hands of certain of them, the register becomes a terrible weapon which they use at one and the same time for the defence of their interests and for that of industrial houses with which they are associated.

M. Preziosi (1) has explained how the Banca Commerciale Italiana proceeds in this respect. Thanks to its service of information, it learns that such and such an Italian house has made an "Extratour" with a non-German factory. The guilty party is at once informed that in case of a second offence the counters of the Commerciale will be closed to it. What happens if it should resist this threat? Then come into play the bank's "bulletins of private information." By means of secret and treacherous little notes the Commerciale informs the other banks that the refractory house is not very stable, and the unfortunate victim soon finds itself refused all credit. It is left the choice between ruin and capitulation.

All this machinery, it seems, is not enough, because very powerful private institutions are still able to live by the sale of information. Everybody at the beginning of the war has heard talk of the Schimmelpfeng agency, whose collection of index cards appears to have been admirably kept as regards France, and which would, in the event of a German invasion at Paris or Lyons, have informed the German command without delay about the contributory powers of the leading citizens. A former Russian Minister of Commerce recently recalled that he once visited the Schimmelpfeng bureau at Berlin—a grand building, a hall of archives, with galleries full of index cards

about all the firms in the world. "Schimmelpfeng boasted that there was not a firm in Russia about which he did not know everything." He asked his questioner to put him to the test. The latter named a house which was only slightly known. In five minutes the "dossier" of the house was brought: solvency, resources, banking account, etc. (1) In nearly all the Russian banks Schimmelpfeng had a spy among the employees. Moreover, he procured the earliest information by the index cards which he sent in blank to the interested parties, and which the latter were artless enough to fill up themselves. (2)

By all these means, honest and dishonest, the German exporters acquired a precise knowledge of the fields in which they operate. "The successes of the German motor-car manufacturers in Poland," writes our Consul-General at Warsaw, "are due principally to their profound knowledge of the Polish market." (3)

Can this scientific knowledge, acquired by means of methodical steps, taken on information carefully collected and collated, always supply the place of the light which is shed only by intuitive knowledge, psychological sense?—assuredly no. A good judge, Herr Dernburg, recently said to the German exporters to Latin America: (4) "We have not understood the mentality of the South Americans—and not only of the South Americans." And he proceeded to analyse closely enough the psychological errors made by the Germans elsewhere than at Buenos Ayres. He said—

"The energy and the activity of the Germans are assuredly extraordinary, and for the Latin and Anglo-Saxon peoples it is disagreeable to have to feel the effect of them without cessation. That is why we must present to them the conquests of science and of technique in a manner which does not show us, through want of tact, as the most learned and the most wise. In this respect we have sinned times out of number, and we have considered the foreigner as a 'second class' who has still much to learn. We

must not present ourselves as schoolmasters, but as friends."

Will the Germans follow the advice of Herr Dernburg? Will they be able to acquire "tact" as one acquires physico-chemical knowledge? Will they, on the morrow of defeat, know how to find the middle path between triumphant arrogance and obsequious humility? But, this error apart, their knowledge of local areas has procured them real advantages.

Study of clientèles. They know—it is a notion susceptible to scientific acquisition—that all clientèles are not alike, have not the same needs nor the same demands, nor the same resources. They owe their success in Brazil "to their care to inform themselves of the customs and preferences of the Brazilian clientèle, and to vary their manufactures according as to whether they are required for Brazil or North America, for instance." (1) Among their competitors there are too many for whom Rio, Boston, or New York are always "America," even if they are not simply "export"! If they gain ground in Australia, it is because they are "very well posted on the customs of the market," etc., etc. There is not one of our consular reports which does not echo this refrain.

Is it or is it not necessary to grant long credits? That depends. Austrians and Germans conquered the Serbian market by their credits of nine and twelve months, because "the Serb willingly consents to overpay for an article provided its immediate payment is not required." In Roumania they sell their cloth at nine months, their rum and brandy at twelve months, and the majority of their goods at six months.

"*The Equator is a land of credit.* The German houses know how to sell on long terms, of six months at least. The German traveller has the talent of persuading the customer that what appears dear is really cheap because the houses he is able to represent give six to nine months instead of ninety days."

How is it that in Brazil, one year with another, more than a thousand German pianos are sold as against some 200 odd French? Because the Germans accept monthly payments of twenty to thirty francs, while the French compel the local consignee to advance a fat sum, and because the Brazilian, with his love of luxury and his haste to revel in it, likes to possess his piano at once, with the right to pay for it on long terms. (1)

These long credits are not without inconveniences. They can, in periods of crisis, in such States as Venezuela, become singularly dangerous. They open between the various producers a competition of a new kind, the contest of credit, which may lead far. It ends, whatever one may say, by not being limited to new and young countries, by spreading detestable commercial customs even in the old countries which by their financial solidity should be preserved from them. (2) . . . But till the catastrophe occurs it is a very sure way of ousting rivals and of conquering markets.

What one can only praise—and imitate—is the policy of the Germans in drawing up their price lists and their invoices in the language of the country, with prices expressed in local currency. (3) Is it really imagined in Paris or in London that our foreign customers are all philologists or experts in exchange, trained to the mysteries of the decimal system or of the more bewildering tables of pounds, shillings, and pence? If the German at times lacks psychological finesse, he has taken a very firm hold on certain axioms of elementary psychology, and on that one, for instance, that man is a naturally lazy being, a voluntary slave to the law of least resistance. "If I have need of such and such a shape of glass, of such and such a size, I ask the great company of —— to send me a specification," said a French merchant to me. "I am told: 'See our catalogues No. so and so; you will easily establish the price for yourself.' A German firm,

for the very smallest order, will take the trouble to draw me up a detailed specification. The same thing applies to photographic apparatus." And if the buyer is in the Plate, the specification will be in Spanish and in pesos; in Russian and in roubles if the demand comes from Vladivostok.

What happens when an Athens buyer approaches a house in Paris or Lyons? He will be quoted a price at Paris or at Lyons. He will be lucky if he is given a price free on board at Marseilles. It is for him to worry over Customs duties, to obtain information about forwarding arrangements, to conclude, after innumerable calculations, by not knowing exactly how much the goods will cost him when they reach the Piræus. The German house will quote him, in drachmas, a price c.i.f. Piræus—cost, insurance and freight.

"The Germans," says our Chamber of Commerce in Greece, (1) "have been the first to realise the importance of this method of delivery, and since the Deutsche Levante Linie began to serve the East there is no longer a single German house which offers its products at 'free factory' prices. They have all established their prices c.i.f. Greek ports, and it must unfortunately be admitted that they have profited from the insistence of French manufacturers who wish to deliver at home prices." With whom do you think the Athenian will place his order? With him who inflicts on him a mathematical task, or with him who supplies a sum already done? Most certainly with the latter, even if, in the end, it results in costing him a little more. (2) For the son of Ulysses understands to-day the meaning of that maxim invented by the Hyperboreans, "Time is money."

Adaptation to the desires of the customer.

From the height of a century or more of commercial reputation, proud of the quality of his products, the eminent trader of the Sentier or of the City awaits the foreign traveller. He has been accustomed, and his

father was accustomed before him, to see each year this contemptible client from Brazil, the Argentine, or Moldavia put himself to the inconvenience of coming in person to procure in the shops of Paris or London articles unsaleable on the national market, and which had been decreed to be "good for exportation"—articles, moreover, which were solid and creditable, products of English probity or of French art, of which a superior wisdom had simply adapted to the taste of inferior peoples qualities too high-class for the latter. But the eminent merchant is astonished not to see a single Peruvian enter his office. What has happened? Why, just this: Some one has come who, instead of imposing his own taste on the Peruvian, instead of saying to him, "How can one be a Peruvian?" went and asked him: "What is your taste?"—"Wie Schmeckt es Ihnen?" or rather, "Como gusta usted?" This has been said a hundred times, but this also is a matter which must be repeated, because there are none so deaf as those who will not hear.

We will not mention at length the too familiar little stories of the handkerchiefs which the English wanted the Russian women to wear in square shape, and which the Germans, meeting the requirements of the Russians themselves, supplied in oblong form; nor of the pins which should have been mounted on coloured instead of black paper.

Two typical cases will suffice me:—

Woollen cloths from Roubaix had a great market in Roumania. The Germans sent specialists to study on the spot the taste of the Roumanian clientèle; on their report the manufacturers did not hesitate to erect special plant and to make a cheaper article, "Roubaix style." "They were not long in dethroning our cloths to the benefit of their own." (1) The contrary would have been a prodigy. A Swiss buyer wants a certain cloth from Elbeuf; (2) the French house answers that it regrets the article cannot be exported owing to its weight, more than 400 grammes.

The German house makes the same reply, but adds: "You will find here enclosed samples weighing 370 to 390 grammes"—and it carries off the order.

"*On receipt of no matter what sample,*" says one of our most clear-sighted consuls, "the Germans . . . create a merchandise which is similar, sometimes *identical,* and at a price often more advantageous." "Whatever the client may want," answers a member of the Paris Chamber of Commerce, "they execute it textually without trying to argue concerning the expediency. . . . We, more often than not, wish to impose our choice, notwithstanding customs and requirements."

I tell you in truth—there is no miracle at the bottom of the success of the German merchants. To study the clientèle, to apply oneself to satisfy it, to divine the requirements of this clientèle—these are their sorceries.

CHAPTER II

COMMERCIAL PENETRATION

THANKS to this theoretical and practical knowledge of local areas, German industry proceeds to realise the commercial penetration of markets. In this operation, an essential rôle is played by the human factor—and this is where we encounter that multiple, omnipresent, insinuating, and formidable being—the German commercial traveller.

Psychology of the German commercial traveller.

In the first instance, he is more "numerous" than his rivals from foreign houses, which have not half, not a third, as many agents. (1) Therefore he is able to visit once or twice a year *all* his customers, even in the little hamlets lost across the Pampas. (2)

He is nearly always German. That is to say, he brings to his mercantile task a patriotic ardour; and as the laxity of his foreign competitors often enables him to be at the same time the representative of a French or American house, etc., he has every opportunity to offer, by the side of the foreign commodity, the similar German article; (3) to study the foreign merchandise, and to have it copied by a German house. Thanks to him, "certain German firms no longer need go to France to find novelties, as their traveller supplies them with the French sample collection," and "this German copy is often shown at the same time as the original." (4) If he has not the collection, he—a seller—does not hesitate to buy the articles which are selling well locally, to send them to his firm.

The representative. The German representative is often one of those numerous sons of Germania whom we have seen, naturalised or not, installed on the spot—at times born there—advance sentries of Deutschtum, conversant with the customs of the country. To maintain contact it is sufficient that a traveller (at times the head of the firm or his son) comes annually from the metropolis to visit this representative, to inquire about his requirements, to study the competition.

A German Brazilianised, Yankeeised or Africanised, or a German from Germany, the representative knows the language of the country and its idioms; he speaks Castilian in Madrid and Catalan at Barcelona. He speaks badly, with an accent which betrays his origin, but he understands and makes himself understood. He addresses lists of questions to his good customers and converts them into so many spies who will ferret out new clients for him. He knows the details of manufacture; he has not set himself to sell pea-seeds as he would have sold watches; he has passed through a technical school or completed a course of training at a factory. He is able to give an estimate, to listen to the customer's complaints, to transmit them to the factory, to suggest to the latter modifications imposed by local conditions.

If he represents a firm of mechanical constructors, an electrical or motor car house, he is an engineer, capable of setting the machine in motion, to effect the necessary corrections in it, and to instruct the local engineers—certainly a useless precaution in a country of perfected technical education; but a primordial condition of success in South America, even in Spain, in Russia, in countries where the manufacturer flies into a passion because he has paid very dearly for a superb machine which, owing to a detail of which he is ignorant, refuses to work.

The German representative often began very modestly. We have known him as an unimportant

clerk in a native firm. As a volunteer, or at a very small salary, diligent, useful, he managed the correspondence in two or three languages, book-keeping, etc. He made himself indispensable—insupportable at times, but nevertheless indispensable. When evening came he frequented the cafés—not just any café, but those where business men met. In the course of casual conversation he took from his pocket, as if by chance, a sample, and completed a deal; other minor transactions followed; then he tried his hand at representation, and made for himself a clientèle. Give him a little time, and he will be a power for the Hamburg house to which he will offer his services.

Nothing can dishearten the German representative—neither the mediocrity of the first orders, nor refusals, nor the absence of cordiality in his first receptions.

We have seen him under our very eyes triumph by dint of insistence, of repeated calls, and of platitude. "Strike, but order," he will say willingly, with pencil and notebook in hand under the cudgelling. He takes orders for everything—for articles in the enemy's colours, (1) even for those in which his nation is ridiculed. (2) He employs every means, honest and otherwise. In Parisian fashions or dressmaking, in hosiery of Troyes, he bribes a "first hand" or a designer to obtain delivery of models. In Japan, as agent for Krupps or Vickers or Siemens-Schuckert, he does not hesitate to corrupt minor functionaries and pompous bureaucrats, superior officers and admirals. He "fastens himself to his place like a limpet to its rock; he succeeds in creeping into a private business or a public administration; he never leaves it again, and succeeds in interesting in his own ends the porter, the servant, the clerk and the official." (3)

He adapts himself to every exigency. He goes as far as to place stocks in the hands of his customers, stocks delivered gratuitously, payable only at the moment of replenishing, which inevitably converts

his buyers into obligatory and perpetual customers. (1) If his firm cannot deliver the article for which he is asked, he recommends the friendly house which will be able to supply it. (2)

Nothing stops him—not even war. At this very hour he continues his work; he weaves his spider's web across the world; he blackens with orders the pages of his note-book. At our gates, Switzerland teems with German travellers, "the same who generally went there before the war." The Imperial Government considers them more useful at their battle posts than in an obscure trench: "they are mobilised as a civilian army to carry on the economic battle." (3)

Hamburg export houses.

But if the business expands, the commercial traveller, or even the commercial agent, does not suffice; especially in oversea countries, the German house sets up its own establishment.

To understand its rôle we must return for a moment to the point of departure—to Hamburg, for instance. There for fifty years at least export houses (880 in 1905) have been formed, large or small, some of them housed in palaces. They are geographically specialised—that is to say, their branches stake out their particular area, or are installed in countries of the same customs, of the same language, of the same monetary system. The great houses create at home geographical zones, corresponding to their different fields of action. Some are industrially specialised, selling textiles or iron or foodstuffs; and the larger ones have technical radii, as they have geographical departments.

One can readily understand that manufacturers who wish to export to La Plata should find it to their interest to conduct the business through the Hamburg house which has a branch at La Plata, which "knows from a series of long years the demands of the Argentine consumers." At Hamburg this house forms a sort of museum of samples, where the Argentine

buyer goes post haste on his arrival and where he can make his selection. (1)

Their branches overseas.

But the great strength of the export house lies in its overseas branches—branches built up from the very beginning, houses constructed by young men whom the firm had sent over, native houses with which the firm entered into partnership or which it has absorbed by a "fusion." These branches render the home firm a threefold service: in the words of M. Vouters, they "observe, inform, and sell."

Correspondence of a branch in 1915.

Let us examine one of these houses at work. In one single list of orders (April 28, 1915) a firm in Santa Cruz de Bolivia asked for reels of cotton, china cups, boys' socks, rubber heels, biscuits, typewriting paper, shoe laces, Dr. Ross' pills, hinges and screws, elastic stockings, white wire for hats, etc.—in short, for everything that is bought and sold. But what of the recommendations which are added to the order? recommendations regarding chiefly the packing and the delivery of the articles: The cottons must be in boxes lined with oil paper and good English tarred cloth, covered with tarred sheets and packing cloth; the coffee cups in strong boxes of thirty-six to thirty-eight kilos gross, very carefully packed with plenty of paper and shavings, not straw; tarred cloth and iron hopes for the hardware, because the cases are carried on mule back and "the want of this packing causes the articles sent (bolts) to arrive rusty." The typewriting machines have arrived slightly damaged—twisted keys, etc.—the little boxes of tools must be fastened outside, packed in shavings instead of being placed in the same box as the machine, etc., etc.

Now, therefore, the mother-house is "posted." In a short space of time its branches at Santa Cruz will become, proportionately speaking, something like that

New York house, the seventeen storeys of which shelter a "permanent exhibition of everything that Germany produces and sells"—machine tools, textiles, china and glass ware, chemical and pharmaceutical products, electrical, refrigerating and heating apparatus, and manure—where the merchant may have established for him his cost and selling prices, according to this or that region of the United States, with such and such a margin of profit. (1) It is the triumph of commercial organisation.

Intermediary commerce and commission business.

This triumph has been facilitated by the very apathy of the rivals of Germany, who have too often left to the German houses the rôle of middlemen.

We already know (we have previously spoken of it with reference to shipping and commercial travellers) that there is no more detestable economy than to entrust Germans with the placing of non-German products. What will happen when this task is handed over, not to individuals, but to houses which live by this work? In Paris, especially, the French had allowed the commission business for distant countries, especially for Russia, (2) to be monopolised by the Germans. To the already disastrous trickery of the transport tariffs, we have benevolently added the commission paid to the German middleman.

The first result of our indifference was to falsify the statistics of Franco-Russian trade; (3) when one sees that out of the 28,000 poods of cut flowers which entered Russia in 1910, 16,255 are inscribed on German account, only 7000 on that of France, and 2000 on that of Italy, the statistical lie is patent. (4) These flowers, which enter Germany by Cologne, are denationalised on their journey in the same way as the perfumery oils which pass through Geneva.

But, the practical man will say, there is little importance, after all, in this system of "ringing the

changes" and the figures which are evidence of them; the essential fact is that these flowers do really come from France and Italy.

This argument overlooks, in the first place, the profit levied by the middleman, by the agents, by the Customs officials, etc. (1)—forgets that a great trade total constitutes in itself an advertisement, acts on the business to come like a magnet, forgets that the Customs agents, not content with "re-marking our products, lowering the prices of some and raising that of others," profit from their position to deliver to the Germans the commercial secrets and information regarding prices, qualities and customers. Nothing is more favourable to imitation, which is one of the favourite methods of the Germans (2)—imitation which sometimes is even advertised with pride, Germany vaunting her ability to beat her best reputed competitors in their own field (3)—imitation made still more easy by the German system of patents. (4)

Apart from all fraud, the rise of intermediary trade is very propitious to the development in Germany of transformation industries, and often the finished product is sold back to the very country from which the raw material proceeds. (5)

The Leipzig Fair. The most brilliant manifestation of this rôle of Germany as intermediary is the Leipzig Fair, so many times described. That the country which is the most industrialised and the most modernised of Europe should have preserved this medieval institution, to which it has given unheard-of developments, which it has regulated according to a systematic plan—that is an omen. Is it not also an omen that this fair could be held in September 1915 even more extensively than that of the spring, (6) that it was prepared for like a battle (7) and celebrated like a victory? The Verband der Messkaufhäuser—the syndicate of fair trade firms (8)—is organising the propaganda for future fairs, and it considers that this

institution, the cost of which rests exclusively on the town of Leipzig, should become an Imperial concern.

Publicity, prospectuses and catalogues.

We find here once again a conception on which we have already insisted—the commercial value of prestige. Propaganda, advertisement, and publicity are for the Germans the essential elements of success.

Commercial travellers, representatives, commission agents and export houses—one and all find the ground prepared by the most intensive of advertisements. The method most current is the use of prospectus and catalogue; both printed in the language of the country, like the estimates and the invoices, "with weights, measures and prices understood by all"; (1) catalogues scattered not only gratuitously, but with profusion, before the existence of any demand; catalogues illustrated, often with care, and—when it concerns a people which the Völkerpsychologie classes among the artistic races, like Roumania—luxurious catalogues, circulars on scented rice paper, (2) decorative and showy placards.

The German traveller arrives nowhere without having been heralded by a shower of papers, small and large, sent to every address which figures on the repertory of the Export Bureau or in Meier's "Addressbuch der Exporteure."

The Press.

By the side of this purely commercial publicity there is the Press, "of which they know how to make use to extol their superiority and their degree of civilisation." (3) At the outbreak of hostilities, one counted 168 German newspapers *outside Europe.* (4) This German Press abroad praises German products, now in the German language—for instance, in the great German-American communities—now in the language of the country. In Constantinople, at the time when the Young Turks had not yet sold the débris of the Ottoman Empire to Germany, it was in French

that the German advertisements appeared in the German papers.

To the German Press over the frontiers are joined the weekly foreign editions of the principal German papers—*El Heraldo de Hamburgo*, and for Brazil the *Hamburger Nachrichten, Ediçao Portugueza*, etc.; then the weekly reviews, *El Correro de Alemania*, or the illustrated publications of a few sheets such as the *Welt in Bild* in seven languages; finally the technical papers and reviews, edited in several languages: *Helios* in German, English and French, *Export Trade* in eight editions, *Deutsche Export Revue* in three languages.

And all this—I am not weary of repeating it—all this is working at the very hour I write, as in unbroken peace. Germany is blockaded; of the houses whose products are praised by the reviews, very few will be in a position to enable their orders to reach the buyer; among these copies of reviews, how many will actually be intercepted in their journey by the Sentinels of the Sea?

No matter. Germany sows during the tempest; victor or vanquished, she will reap the harvest. While her rivals keep silent, refuse to book orders, postpone all talk of business till the morrow of peace, Germany proclaims to all the world that she exists, that her firms are ever powerful, that they will be ready on the first day of peace to answer the call made on them.

Here, for instance, is the issue for August 15, 1915, of the *Revista de la exportacion alemana*, the edition of the *Deutsche Export Revue* for the Spanish-speaking countries, ten marks per annum post free throughout the world. On the cover is a view of the dynamo hall at Siemensstadt, and in the text these two symbolical pictures face each other: Siemensstadt, the town of electricity, the town of the "epoch-making inventor of the dynamo"—Warsaw, the latest German conquest; articles on the "bankruptcy of England," on the philanthropy of the German shipping companies, etc.; declarations of neutral

Germanophiles, carefully selected balance sheets of German companies, dithyrambics by Herr Helfferich, even criticisms by which Frenchmen or Englishmen shake the apathy of their compatriots—all is utilised to give the feeling of German pre-eminence. And all this literature frames advertisements for "Instrumentos opticos" of Zeiss, filament lamps of the A.E.G.—"Lamparas de Alambre metalico (estirado)"—as for "articulos para Carnaval," or modest "tea-strainers for every country of the world" ("coladores de te para todos los paises del nundo"), of W. Engelhardt, Furth, samples free ("muestras gratis"). Besides all this, do not neglect the information bureau (Ne olvide Ustede dirigisse a nuestro Departmento de informationes—Berlin, W., 50 Tauentzienstrasse 15)—where you will obtain "the address of every German house which manufactures the articles that interest you."

To these universal reviews come the specialised geographical publications of which a type is the *Deutsche Levante Zeitung*. (1) Other reviews are technically specialised, forming a scientific literature which is at the same time an instrument of propaganda. (2)

The enormous development of the technical associations has as a corollary an enormous development of these special periodicals, of which the *Chemiker Zeitung* is one of the most successful types; periodicals in which no opportunity is ever lost to exalt the intellectual superiority and the industrial supremacy of Great Germany. Technical and geographical specialisations are again merged when one of these special reviews has an edition destined for a selected group of countries. (3)

Organisation of Press services abroad.

It appears that all this organisation was not yet enough, and above all not sufficiently organised, because the Germans have recently thought it advisable to

substitute a methodical strategy for this warfare of sharpshooters. In the Economic Staff, which Possehl of Lübeck claimed to have formed, it was necessary to have a Press Bureau.

A curious note of Sir Edward Goschen's of February 1914 revealed to us the plan of "this German official organisation to influence the Press of other countries."(1) The business was negotiated between Herr Ballin, (2) some large banks and companies—North-German Lloyd, Hamburg-American, Disconto, Deutsche Bank, A.E.G., Siemens, Krupp, Gruson, etc.—and the Secretary of State for Foreign Affairs. The participants formed a private company, which was, however, subsidised by the Foreign Office; the annual subscriptions of the companies amount to £25,000 (about the total they had been accustomed to spend on advertisements abroad), with a minimum of £50 per company, each sum of £50 carrying the right to one vote.

The Imperial Foreign Office itself pays a sum equal to £12,500, and thus exercises a "powerful and decisive influence." This Government subsidy of £12,500 is only granted provided that the total of the subscriptions amounts at least to a similar amount. The syndicate, which was created provisionally for three years, was to operate immediately in South America and the Far East, and then to extend its action to all overseas countries.

In agreement with the Wolff Bureau, this company has as its object "to promote abroad the industrial prestige of Germany. It will supply to foreign newspapers, and in their languages, free of charge, or practically so, every possible information about Germany and favourable to Germany. It will suppress the service to those which show themselves intractable, for effective surveillance will be exercised everywhere by the agents of the syndicate.

"To answer misleading news concerning Germany, and to reply to the attacks on her, to diffuse the knowledge of the true condition of German industry"—

that is the programme. To have secret agents everywhere—generally chosen, "to attract less attention," among publicists of recognised status—and through them to Germanise the world's Press—that is the method.

From Berlin, a board of three members (a Geheimrat, a Landrat, and a director of the Deutsche Bank) and a council on which figure the great banks and the great export houses, (1) will distribute to the nations news and information, will assure the German cables of a kind of monopoly (2)—in short, will constitute a sort of spiritual power on earth for the greatest profit of German exportation. Only the war has prevented the birth of this new species of cartel.

To the Press campaign Germany adds an even more direct propaganda—commercial exhibitions in Germany or in foreign countries, travelling exhibitions, sample depôts, and especially those depôts of goods which "not only enable the demand to be met at once, but excite this demand." (3) It is by these means that Germany has transformed certain countries —for instance, the Central American States—into veritable economic fiefs.

What is Guatemala to-day if not a German colony without the German flag? The timber trade, as a report of the German Legation of May 9, 1915, tells us, is centralised in two German houses; that of coffee is practically entirely in German hands; and here, as in the small neighbouring republic, as also in Bolivia, it is at the German bazaar that one buys one's supplies of the manifold products of European industry.

CHAPTER III

INDUSTRIAL PENETRATION

It might appear that we had come to the end of the means of economic penetration employed by the Germans.

But they have invented—or systematically used—still another method, more subtle, more dangerous, less visible, more concealed from those very people against whom it is directed: industrial penetration.

Exportation of factories.

When it happens that an obstacle arises to the exportation of German products (Customs barriers, legislation on trade-marks, considerable distances), and the obstacle is decidedly too high for it to be overcome by the usual methods (differential tariffs, dumping, etc.), the German factory itself crosses the frontier and proceeds to install itself in the foreign land. "Faced with the difficulty of exporting its products, *German industry has exported itself.*" (1)

This is not a thing of yesterday. In 1839 the cotton industry was created in Russia by Ludwig Knoop, of Bremen. (2) He introduced English looms; he founded 120 spinning mills, so that it ended by the saying, "No church without a pope; no factory without Knoop." (3) Let us salute in passing this ancestor of the Thyssens, the Bayers, and the Siemens. We jump nearly sixty years, and in 1897 we see described by M. Schwob "the slow infiltration even into France . . . the *German factory* audaciously implanted in our country." (4) This slow infiltration became an

invasion, if we are to believe the articles published in 1913–14 by M. Louis Bruneau and collected under this eloquent title, "Germany in France." (1)

The recent sequestrations have amply justified the statements of M. Bruneau. "Between one day and the next," says M. V. Cambon, "the discovery has been made that a crowd of houses which were thought to be French were in reality either controlled by Germans or branches of German firms."

The German industrial penetration does not, at first sight, awaken the uneasiness of those affected. In the first place, is not this a procedure widely adopted? Do not Frenchmen and Belgians go to exploit coalfields and direct metallurgical or textile factories in Russia? Did we not construct railways in Spain, the Argentine, and in Turkey? By the side of Germans did not Englishmen come and establish themselves in France, buy up houses which were threatened with ruin, create new ones, even in Paris itself, and even in industries essentially Parisian? Is there in this anything but the normal play of the economic solidarity between the great producing nations?

And moreover, one adds, which profits the more from industrial penetration—the nation which exports its factories or that on whose territory the factories arise? What happens when a German chemical company installs its branch in France? A part of its capital is exported with the factory and remains immobilised on French soil. The mother factory, that of Ludwigshafen or of Hochst, no longer sends us her products, her aspirin or her dyes. The daughter factory works in our country, on this side of the Customs' barrier; her products are Frenchified; after all, they are French products which come to swell the total of our national production. If they are exported, they will figure as assets of our external trade. This factory is a taxpayer; it pays taxes to the French exchequer and not to the German. It makes work,

is a payer of wages, and in consequence it improves the conditions of native labour.

So much the worse, then, for the capitalists who refused to exploit the national wealth. So much the better for the country which becomes the field of action for foreign energy. By their initiative and by the rapid application of their methods the Germans create wealth in other countries. Iron was lying dormant in the veins of the rocks of Normandy, our capitalists also were asleep, and remained deaf to the calls of our geologists and our engineers. The Norman peasant slept even more soundly between two jugs of cider and spirits, and refused to become a miner. Thyssen came to awaken them all. At the cost of millions, and not without dissipating some of them in costly attempts at Diélette and Flamanville, he has endowed France with new mining areas. By the introduction of energetic workers into the country he imposed on the Low-Norman laxness an industrial activity which it did not want. To whom is the benefit? In sum, the profit is actually double for the nation in which the German factory plants itself; that nation is enriched while Germany is impoverished. And one is tempted to say, with the Scottish constructor to whom the cartel sells sheet-iron at reduced prices: "Continuez, Messieurs les Allemands!"

This, then, is the appearance; but let us try to penetrate this lazy sophism.

Does capital emigrate with the factories?

In the first place it would show scanty knowledge of Germany if we saw in the transplantation of factories the cause of an important emigration of capital. (1)

On the subject of the banks we have already described with what art the Germans knew how to conquer, in foreign businesses in which they interest themselves, the dominating positions, while at the same time engaging in them the minimum of German capital. To possess the majority in the meetings (and for this

it is not even indispensable that half the shares plus one shall be in German hands—all that is necessary is to have disciplined shareholders always ready on voting day), to nominate holders of controlling positions, to retain important places in the councils, on which are always seated a certain number of useless solemnities—all this does not necessitate a very considerable "investment" of capital.

It was not only yesterday that comparison was made between the quantity of French capital placed in the Transvaal (nearly £80,000,000 in 1909) and the much smaller amount of German money invested there. But the former, without organisation, is divided among many mines and trusts in which we have neither a voting majority nor the management; the latter is grouped in a small number of mines under the management of two German firms. (1)

It is by virtue of this principle of organisation, and at the same time on account of the desire for fat dividends, that the Germans bring all their attention to bear on shares, and neglect debentures. One notes, as two favourable symptoms, that "the proportion of German interests in the share capital of the mining companies of the Briey basin . . . is extremely far from showing a preponderance," and that the debenture capital comes exclusively from French sources. (2) But it suffices for Thyssen and for the Deutsch-Lukemburgische Bergwerke to have the preponderance on some points; and as to the placing among the native clientèle of debentures—stock which gives no rights of control over the business—this is precisely one of the guiding principles of German penetration.

This is the case in Italy and in Switzerland. The share capital in the businesses in these countries is provided partly in Germany, partly by one or more other foreign nations, partly by the native population. It is not necessary that the German shares shall have numerical superiority for the majority of the administrators to be German; the fact that they form a larger

group than any of the other groups taken singly accounts in the case of the Société Anonyme pour l'Industrie de l'Aluminium of Neuchatel for the presence of eight German directors, as against one Austrian and six Swiss, and in the Banque des Chemins de fer Orientaux of Zurich, of eight Germans against one Frenchman, one Belgian, one Austrian, and five Swiss.

The German shares constitute a disciplined army; the others do not. As to the debentures, the more modest yield on which does not tempt the Germans, they are placed in Switzerland. Thus, says the *Gazette de Lausanne*, "Swiss debenture capital serves to feed German enterprises which come to compete even in our country with the national industry." (1)

The same thing applies, to a certain extent, to the money of Swiss or Italian shareholders. As in the case of branch banks, a book-keeping artifice enables the dividend of branch factories to be diminished. (2) This is doubly or trebly advantageous; less taxation is paid to the local exchequer; a guarantee is established against a possible movement of public opinion, which might become uneasy at seeing the profits of a supposedly national industry go abroad; and the dividends of the mother-factory can be proportionately increased. It matters little to the German shareholder in the Società Italiana Siemens-Schuckert of Milan that he contents himself with a meagre dividend, if, thanks to the transfer of money from one country to another, which is effected by book-keeping trickery, he sees the dividends on his shares in the Siemens-Schuckert Werke of Berlin growing larger.

The chain method. What enables German companies to establish and extend their domination at the least possible cost is the application of the ingenious method which M. Preziosi has so well named the *method of the chain.*

By the use of merely a relative majority, we have

seen how the German mother-company managed to reserve for itself the management of the branch company created by it or to secure the directorial functions in a pre-existing company. (1) The branch company in its turn creates sub-branches, and by the same methods. With the assistance of the German banks, it acquires as many shares of these new companies as it requires to enable it to be well represented in the council of administration; and so on up every step of the ladder. Only a minute study of the councils and of the managing staff, the proof of the recurrence of the same names, of the same families, etc., only this onomastic and genealogical study would enable one to form an exact account of the power of these organisms. (2)

This method, which stretches an unbreakable net of steel over a whole country, has been specially applied by the electrical industry, the type of industry which more willingly exports its factories than its products. (3) The Elektro Bank, the Zurich branch of the Allgemeine Electrizitäts Gesellschaft, is master in Italy of the grand Officine Elettriche Genovesi and the Unione Tramways Elettrichi Genovesi, of the Idro-Elettrica Ligure of Spezia, of the Società Adriatica di Elettricità which serves the district from Friule to Bari, of the Società Apuana of Massa-Carvara, of the Società Syiluppo per le Imprese Elettriche in Italia, whose offspring spread over Montferrat. The same A. E. G. has a Barcelona branch which has founded in Spain seven establishments, and which in 1910 supplied 60 per cent. of the electrical material sold in the peninsula. In France it has succeeded in penetrating into an existing company, and by the creation of branches it has grasped control of the lighting of towns such as Rouen, Nantes, Algiers, Oran and Châteauroux. (4)

But what can one say of the wonderful spectacle presented by Siemens-Schuckert? The list of its branches, sub-branches, and affiliated companies fills pages. The Società Italiana di Elettricità S. S. of Milan has founded offices at Genoa, Naples, Florence,

Palermo; by its side, the Anonima Elettricità Alessandria, the Toscana (Pisa), the Umbra (Perugia), correspond directly with one of the three branches of the Siemensstadt "consortium," Siemens und Halske; (1) they send it monthly reports, balance-sheets, diagrams, "all on forms printed in German," quarterly lists of the administrative and working staffs. And these documents are returned from Berlin to the respective companies, after being checked.

The same system, no doubt, exists for the S. S. Compania Anonima Española de Electricidad, (2) for the S. S. companies of La Plata, (3) of the South American coast, of Brazil, Mexico and Portugal; for the S. S. W. Cairo branch, for the Societatea Romana de Electricitate of Bukharest, the S. S. Kankoku Denki Gomei Kaisha of Chemulpo, the Siemens China Electrical Engineering Company of Hankow, the Dansk Aktieselkab S. S. of Copenhagen, etc.; in conclusion, because one must observe a limit, for the Compagnie belge d'Electricité of Brussels and the Compagnie Générale d'Electricité of Creil! Besides these there is an enormous list of branches, offices, financial partnership companies, etc. (4) It is in truth a "chain" which encompasses the world, at one and the same time by its factories of exploitation and by its manufactures of electrical material.

The same situation exists in the dye industry, in which, to speak only of France, (5) we found the Badische at Neuville-sur-Saone. There it made alizarin for red trousers, and perhaps its profits served to pay for the Press campaigns in which, stoutly backed up by sentimental arguments, our professional patriots opposed the abandonment of a colour which enriched the factories of Ludwigshafen and in addition exposed our infantry to the fire of the enemy.

Bayer was at Flers (Nord), the A. G. F. A. at Saint-Fours (Rhone), the Farbwerke of Hochst in the *Parisian* Compagnie des Couleurs d'Aniline of Creil, Cassella in the Manufacture de Matières Colorantes

Lyonnaise. For these branches of a German factory excel in the art of adorning themselves with names that are native, national, and, if necessary, jingo. What a number of "Françaises" figure among the companies whose real nationality has been revealed by sequestration! So also the Banca Commerciale *Italiana.* . . .

The chain system not only applies to the various factories of a single industry. The different industries help one another, choosing beyond the frontiers favourable places wherein to form powerful groups. Lamprecht had already brought to light the Germanisation of the port, industries, shipping, and commerce of Genoa. Preziosi notes that the Germans possess in that city the granaries, the lighting, the tramways, and that they have monopolised all the great electrical powers on the Riviera. In Pan-German dreams, Genoa "was to be the great German port of the Mediterranean, like Trieste on the Adriatic," like Rotterdam at the mouths of the Rhine. Not only Antwerp, but the whole of Belgium was under the German yoke before it fell under the German sword. (1)

What the Germans had done in Italy and Belgium, writes M. Giraud, they had done in Russia. They "assured themselves, whenever they possibly could, of a preponderating share in the control of businesses —in regard to mines, metallurgy, naphtha, transport, machinery, textiles, chemical products, the paper trade, etc. By means of partnerships and communities of interests, and thanks to the intervention of the banks, they are masters of the coal industries of Dombrova, of six enterprises in Poland; they have a share in Sosnowice; they absolutely dominate the zinc market, the Russian and even the Roumanian oil enterprises.

When once the Germans have acquired preponderance anywhere they defend it stubbornly; they give it up only in return for positive advantages. (2) It is known that in April 1909, Thyssen, already owner of the mines of Soumont in Normandy, acquired the

neighbouring concession of Perrières, an additional area below the port of Caen, in order to erect a factory there. Between the mine and the factory he wanted to establish a railway. This factory would consume 60 per cent. of the mineral extracted from the mines of Normandy, and the exportation of the surplus would supply freight as a counterpart to the coal which Thyssen would bring to Caen from his own Westphalian coal-pits. The idea was grandiose, but the French Government only consented to grant the line to a company in which the French proportion would be preponderating. Thyssen ceded his rights to the Société des Hauts Fourneaux et Aciéries—that is to say, to a Cail-Thyssen company in which the portion of share capital left to the Germans was only 40 per cent.

In return for this cession, Thyssen had himself guaranteed the delivery in 25 years of 10 million tons —that is, three-fourths of the supply of the blast furnaces. (1) But he perceived that the preponderance of the Cail group was becoming a reality. Then " by means of the method of their country, now sinuous, now brutal," the Germans negotiated and imposed a " treaty of peace " (this significant term was used by a present director of the company). They reduced their participation to 20 per cent., but they recouped themselves for this partial withdrawal by the increase of their right to purchase from three-fourths of the furnaces' supply to one and a half. (2)

If they guard with such rigour their positions on foreign soil, they succeed in retaining them, and, even more than that, in strengthening their prestige. Let us examine a little more closely the profits which industrial penetration wins for Germany. We do not speak here—it is not our subject—of the political and military results of this method, which enabled them to add to commercial espionage, spying pure and simple, and sometimes even the direct preparation for siege operations.

Exportation of workers.

In the first place, they station their compatriots abroad. There is an artless belief that the erection of a German factory in France, Spain, Italy, or Switzerland assists national work. In the same way as the directing functions on the boards of companies are seized by the Germans, so in the factories the important posts as engineers, clerks, and first-class workers, are reserved for Germans. (1) The enormous mass of doctors and men with diplomas who leave the German universities—for they also practise standardised production—the "intellectual" emigration of which Liebert told us, finds here its outlet, without taking into account that from the more or less German factories it can afterwards flow back to the purely native factories. (2) The Germans, and with them the Austro-Hungarians, once installed in a place, are wonderfully quick in driving from it the native engineers, unless the latter obey the word of command!

Exploitation of patents.

Another source of direct benefit is the exploitation of patents. These innumerable German patents the importance of which we have already explained, become articles of export. (3) Every discoverer of an invention launches it everywhere abroad where local legislation guarantees him the ownership. "It is one of the specialities of the engineering art," writes an engineer, "that the organisation of industrial installation in every country of the world shall have as its object the exploitation of a licence which comes from Germany. Many millions enter that country in the form of royalties to the owners of patents."

Utilisation of German products.

But the indirect profits are still greater. A German industry would naturalise itself to a certain extent in the country to which it emigrates if it transported itself there wholly, if the daughter-factory carried

out every stage of production on its new site. In general the daughter-factory, whose installation in the first place has been made with German materials and by German constructors, is above all a factory of transformation, which works on partly manufactured products, which finishes, adjusts and assembles detached parts, which mounts machines on the spot. By contract the use of materials from the mother-house (or, if it does not itself manufacture, from friendly houses) is imposed on branches; the latter are bound to impose it on their installations, and even, in practice, on their public or private customers. Such a factory as the Spanish house of Siemens makes dynamos in Spain, it is true, but the electro-magnets, the wire, etc., come from Berlin. Contrary to appearances, the exported factory becomes an instrument of exportation.

These practices are favoured by the Customs legislation of the very countries which think they are protecting national work against foreign industry.

Why are there so many German factories of dyes or of pharmaceutical products in France? Because our Customs tax manufactured products with a duty proportionately higher than that on raw materials or partly worked products. They think thus to implant finishing industries in France. The result is "the establishment in our country of certain German manufacturers who have evaded the difficulty by employing various subterfuges, of which the chief was the introduction, as unclassified and unscheduled products, of chemical substances in the last stage but one of manufacture." (1)

Why are there so many factories of mechanical construction in Italy? (2) Because machines pay much higher duty than the detached parts. The great German house sends these parts to the branch; the latter only has to manufacture those of the pieces which, on account of the metal of which they are made, pay higher duty. For the rest, its industrial rôle is

reduced to a work of fitting up. This division of functions also enables an unequal division of the profits to be arrived at between the daughter-factories and the mother-institution in Germany.

Cornering of raw materials.

At times, what the German factory seeks by this swarming abroad is not so much "the great and ceaseless rise of its products and their constant diffusion" as the cornering of raw materials. The comparative impoverishment of Germany in iron explains the Thyssen plots in French Lorraine and in Normandy.

The high treason case so strangely brought at Possehl revealed to us in the summer of 1915 that the powerful senator of Lübeck was, after the Swedish State, the largest shareholder in the mines of Graengesberg, that he was interested in the Lapland mining syndicate, that he held the majority of the shares of another exploitation in Dalecarlia, and two important iron-working factories, that he owned to the extent of a seventh part the Norwegian copper mines of Trondhjem, and that he was scheming to create an iron and steel trust in Sweden. (1) Condemned in Germany, the estates of this former personal friend of the Emperor will be confiscated to the profit of the Empire. Will his Swedish property follow the same fate, making the German State one of the great owners of Swedish mines? And may this charge of high treason be merely high comedy?

Dumping "exteriorised."

Besides the many benefits of a positive order, industrial penetration in all its forms secures also for Germany a negative benefit. It paralyses competition, it kills national industries. It thus completes and intensifies the work of dumping—it is dumping "exteriorised."

What Spanish electrical enterprise would be able to rise against the domination of Siemens? A factory

for pharmaceutical products was actually created at Montereau. A Darmstadt company quickly came on the scene there and established a branch which, by its dumping prices, soon completed the task of stifling its rival. More easily still than the factories of Germany, the German factories abroad, masquerading as native factories, participate in the public tenders, and discourage the local producers. The branches contract enormous expenses, are lavish in advertisements, undertake enlargements, content themselves with very limited profits; the mother-company and the allied banks are there to support them, for it is a question of beating all competition, of sweeping the board, of allowing only the German factory to exist in the world —the German factory which alone will make at once semi-products and finished products, and the daughter-factories, on whom will devolve the work of finishing.

It is the industrial application of "Deutschland über Alles"—it is economic Pan-Germanism—a task for the future, a task at long range which is well worth some momentary sacrifice.

When the Europeans discover in a semi-barbarous country latent wealth, mineral or vegetable, of which, through apathy or ignorance, the natives do not know how to reap the benefit, the superior nations believe they have the right—they even consider themselves as invested with the mission—to exploit this wealth in the higher interest of humanity. It is the "white man's burden."

In the same way it is for the Germans an indisputable postulate that they are, as says Dernburg, "the most scholarly and the most wise" of all men. Their technical superiority constitutes for them at once a right and a duty—the right and the duty of assuming the organisation, the systematic exploitation of the globe. In this respect the Germans are the superior race, other races are inferior races. It is thus necessary, in the interests of humanity, to make these races work

according to the methods and the directions of Germany—of their own free will or by force. For this is the "Teuton's burden." He is morally compelled to act thus.

There is perhaps not one German—however little of a Pan-German he may be—who, at the bottom of his heart, does not share these ideas, which Ostwald has clothed with the splendour of the Apocalypse.

CONCLUSION

THE circle is completed. By her situation, by the development of her population, by the very date of her entrance into history, Imperial Germany was turned towards the outer world, and has been carried beyond her frontiers. The suddenness of her rise, the ultra-rapid pace which she imparted to her industrial development, have made expansion a necessity for her. Her financiers, her manufacturers, her statesmen have made of it a policy. To become a Weltvolk, a "world people," was the dream of this race which during so many centuries had not been even a State.

To this people, hitherto poor, wealth came very quickly—in a flash. It did not become immobilised in traditional customs, as in countries where it results from a slow and patient accumulation. It did not consent to be submitted to rules which elsewhere prudence has advised and experience has sanctioned. Quite on the contrary: it has used methods and expedients to which the poverty of former times had accustomed the nation. That is why the German banks—reversing the evolution which specialises more and more the functions in order better to divide the risks—blended all manner of financial activity.

Whether this blending could have continued indefinitely, whether the German banks would have renounced it of their own free will, or whether, persisting in their course, they would have arrived at a gigantic financial catastrophe—this is a question which history will leave eternally unanswered, because a catastrophe of another kind, and still more gigantic,

has come to shake this organisation to its very foundations. Yet, while it lasted, this organisation has placed in the hands of German industry and German trade an instrument of diffusion of incomparable power.

The very suddenness of the German rise constituted a grave danger: too much capital engaged in too many industries, too many workers and too many factories, too many products at too cheap prices. Under the action of unbridled competition, the crises of over-production were multiplied, bringing in their train unemployment and want, and inducing heavy emigration. The remedy was supplied by the spirit of association which is so strong in Germany. This spirit found ample scope in the industrial organisation which prevailed in Europe at the period when Germany was born into great economic life. In this new industrial type, with its concentration and the German sense of grouping, of the hierarchy, of discipline, there was pre-established harmony. To the concentration of factories was added the concentration of cartels. Created in the first instance to arrest the hasty multiplication of products and the fall of prices on the home market, the cartel turned its energies abroad. The opportunity to divert the surplus production across the frontier was too tempting. To facilitate this movement the procedure was all marked out: to cause a rupture of the equilibrium between the level of prices within and the level of prices without; to raise around Germany a kind of dam, and in this dam to construct gates by which the superabundant tide would flow away towards the low ground outside, thus artificially deepened. That is the whole mystery of dumping.

In order rapidly to evacuate this flood, a whole system of drains and floodgates has been combined. That is to say, Germany has placed the arrangement of her transport machinery at the service of this policy of intensive exportation. Rivers and canals, railways,

lines of navigation, are all, even when they are comprised in national territory, arranged to run towards the outer world, constructed, administered and "tariffed" in view of their function to aid the expansion.

To assure the rapid, massive, and economical exportation of the products of the German factory (that is to say, to bring them to the most distant markets more quickly, in greater quantities, and at less cost than the products of competing factories), that is the aim of all the transport services; inversely, their essential rôle is to supply the German factory with the raw materials which it lacks, or which it has not in sufficient quantity, and the working population with food.

The struggle between these various services ended, just like their agreement, in this double result. Even the resistance of the old castes, of the agrarian feudalism of the State, was only able for a time to oppose the eager and growing needs of the industrial party. The agrarians themselves are carried away in this whirlwind, seized by that infatuation which, willy-nilly, turns the attention of every German abroad. By the excessive tension of the forces involved, national economy has led Germany to "Weltwirtschaft"—world-economy.

Banks, cartels, transport services—all these forces are thus combined in one single organism, the tentacles of which spread out in all directions. But it would show scanty knowledge of Germany to imagine that this organism could be brought to life by appealing exclusively to economic forces, individual or collective. We have said and repeated often enough that modern Germany is essentially a State. No form of national activity in it is even conceivable outside the framework of the State. If anywhere the phrase "State providence" is anything else than a metaphor, it is certainly in the German Empire. The War Lord, Kriegsherr, is at the same time the chief of the economic war. It is for him to control not only his

own finances, the finances of the State, but the finances of the nation. It is for him to superintend and direct the autonomous groupings, even to enter into them in order to impose on them a policy which conforms with his views. Absolute master of the majority of the instruments of transport, indirect master of the others, it is for him to hurl the flood of German production towards the weak points of the adversary. And if the external markets should attempt to defend themselves against the inundation by themselves raising dams, it is for the State to open the necessary breaches in these dams, by persuasion or by force. German industry demands much of the State; it concedes even more to it.

By means of this concentration of all its energies, by this unity of control, economic Germany has become a power nearly as formidable as military Germany, and of the same species: a power of domination and of conquest.

During forty years the German Staff prepared itself for a war which had to come at some time or other, and whose outbreak would end in a decision. But the economic battle rages every day. Every day the General Staff of the banks, cartels, and shipping companies elaborates its plans of conquest, and with marvellous flexibility adapts them to circumstances. The execution on this ground immediately follows the strategic conception. Espionage, which in matters military is only a preparation for war, is already in matters economic a form of conquest. Not content with besieging, with attempting to surmount the frontiers of the enemy, German industry plants itself, during open peace, in the very heart of the countries which she wishes to enslave, in the positions whose importance the economic strategy has revealed to her.

By this daily invasion Germany established her domination over all peoples so firmly that only a stroke of madness could have made her prefer the

formidable hazard of battle to this progressive and sure infiltration. This certain power, almost elemental and destined, of the German effort appeared even to many good souls as a guarantee of the world's peace. Why should Germany make war? Another ten or twenty years of peace—of this apparent, quite material, peace—and the world, economically speaking, would become German.

German economy and the war.

But then, one will say, why did Germany make war? Through what stroke of insanity did the industrial party associate itself with the feudal party in order to precipitate the Empire, and with it the world, into the most frightful of hells?

There is in this only an apparent contradiction. The German factory was installed on such a basis, the machine was running with such a rhythm, that it needed every day more material, more clients, more capital. It needed them at all costs; voluntarily if possible—compulsorily, if violence, or at the very least threats, became necessary.

The more and more complete fusion of Weltpolitik and business policy was singularly dangerous for the peace of the world. (1) If imperialism, if the octopus State places its force at the service of the industrial interests, the temptation is not only great, but it is perpetual, to use this force to shatter the resistance which is opposed to the triumph of these interests. Should a crisis come which places tens of thousands of workers out of work, woe to the neighbour who can be held responsible for the crisis. "Be my customer or I kill you"—this seems to be the motto of that industry, the needs of which are insatiable.

Russia is for Germany a reservoir of labour and a market. If Russia refuses in 1917 to renew the disastrous treaty imposed on her in the dark days of the Russo-Japanese war, if she suppresses the system of passports for agricultural labourers, if she defends

herself against the "Einfuhrscheine" (import certificates), what will become of the capitalist agriculture—agriculture more and more industrialised, more and more in the hands of the banks—of the great domains of Brandenburg, Pomerania, and Prussia?

France is for Germany a bank and a supplier of minerals.

In the first instance a bank. We have described the German industrial organisation, founded to a very large extent on credit, piling up formidable businesses on the foundation of distinctly limited capital. Germany could with difficulty continue this course for long; she created new factories too quickly to be able to redeem the cost of their plant. She was like those too reckless business magnates who, by dint of throwing themselves into rash enterprises, finish by looking on bankruptcy as a supreme means of safety—failure or the intervention of new capital. Now this capital existed in a neighbouring country, but in a country less active, somewhat somnolent, a little lazy. In good faith, Germany made us the offer of employing our capital in her own country by assuring to this capital a higher remuneration than that with which we had the meanness of spirit to be satisfied. As usual, our credit establishments placed at the disposal of German activity the dormant resources of French thrift. But at certain times French savings showed themselves refractory. If they should take a fancy to do so again and to persist in their abstention, what would become of the great German house? It needs French money, willingly or by force. What a temptation to dip greedily into the stocking which at times is so jealously tied up!

What a temptation also to repair the error of delimitation committed by the German expert geologist in 1871! Already in 1911 the great organ of Rhenish manufacturers, the *Rheinisch-Westfälische Zeitung*, uttered the advice that the deposits of French Lorraine and Luxemburg should be submitted to the same

domination as those of Westphalia and the Sarre. What a temptation also to go and take in the rear, by Diélette, the port of Cherbourg!

As to England, direct competitor of Germany on all the markets of the world, manufacturer of the same products, she is the enemy whom it is necessary to beat down to the dust. (1) Did she not acquire the habit—did she not make France acquire the habit—of imitating the practices of German finance, of no longer lending money to poor States except against large orders?

The time begins to pass in which Germans could do business in Turkey with French or English gold. Germany's rivals have learned from her to play the game of the Handels-und Machtpolitik. But what will become of Essen, Gelsenkirchen, and that immense industrial city which Westphalia has become, if the Roumanians, the Greeks, and the Serbians proceed to order their guns and their warships, their rails or their locomotives, in Glasgow or at the Creusot works? To this economic encircling of Germany war seemed preferable, and the mailed fist replaced the velvet glove.

Little by little the idea of a necessary war, of an almost desirable war, won over the industrial classes. I find the proof of it already in 1908 in a popular book from the pen of Professor Paul Arndt, one of those little books sold at a shilling which served to form the German spirit. (2) After a hymn on German greatness the author heads a chapter as follows—

"On the dangers of Germany's participation in world-economy." He shows that this participation increases the dependence of Germany as regards foreign countries, that it makes her vulnerable at sea as on land. Should international relations become troubled, there will be "many workers without bread, great depreciation of capital," and that from causes which "to a large extent escape the control of Germany"; causes born in countries which can seize the opportunity of weakening Germany. And in a pro-

phetic hypothesis he describes the effects of the blockade.

But he accepts these risks of a world-policy without hesitation. "Assuredly," he says, "if we wish to be and to remain a great people, a world-Power, we expose ourselves to serious combats, but that must not frighten us. There is a deep truth in the saying that man becomes enervated in peace. It often requires the call to arms to shake the world which has lost its virility in apathy and laxness. To him who can see far and deeply, battle often appears as a blessing for humanity."

This German—he writes in 1908—is a disciple of Joseph de Maistre.

By this fatal mechanism the too rapid industrialisation of Germany has led us to the German war.

If one doubted the rôle of the economic causes, or rather of the economic mentality, in this war, it would be sufficient to convince one of it to see how the Germans in their dreams conceive the German victory. It is an industrial victory. It is the compulsory marriage of German coal and foreign iron, it is the reduction of "vassalised" peoples to the rôle of perpetual customers of the German factory.

"The mineral deposits of French Lorraine and of Russian Poland," writes Baron von Zedlitz-Neukirch in February 1915, "are to a certain degree the complement of our own mining exploitations." (1) "What is to happen to martyred Belgium?" we will ask of the fiery Max Harden. (2) "Antwerp," he answers in October 1914, "not against, but with Hamburg and Bremen; Liége, by the side of the small-arms factories of Hessen, Berlin, and Swabia; Cockerill allied with Krupp, Belgian and German iron, coal and textiles under the same control. . . . From Calais to Antwerp, Flanders, Limburg, and Brabant, to beyond the line of the Meuse fortresses—all Prussian!" Dream of a victorious business man, office romanticism, which proceeds from the "Soll und Haben" of Freytag.

For the German manufacturers the war must settle

the colonial questions. (1) In the tragic days of the end of July 1914, Bethmann-Hollweg offered England the integrity of continental France (German industry would have contented itself with a France economically mediatised), but she refused to bind herself to respect the French colonies, especially in North Africa. In September 1914 the generous Germans had the audacity, as the price of a defection of which they thought us capable, to offer us the division of that Belgian Congo to which the treaty of 1911 had enabled them to stretch two feelers. (2) One of them wrote this candid phrase: "We need France because we cannot have the pretension to rule the whole non-English colonial world." At the same time they tried, by means of a revolt of the Boers, by means of attacks on the Portuguese colonies, to construct a German Empire in South Africa.

German victory meant assured supplies of iron, and enlarged markets. It meant Briey, Ouenza, Casablanca, and Bagdad.

The morrow of victory.

Will it suffice us, in concluding this study, to have sketched this summary of the German economic evolution and of its historical consequences? It would be sufficient if one could consider this evolution terminated, if it were a matter of a henceforth closed chapter of universal history.

But one would need to be blind to believe that this is so, and that everything will arrange itself for the best on the morrow of victory.

"I admire as extraordinary beings," said M. Victor Cambon recently, in phrases virulent but accurate, "those who predict that on that day French industry will only have to stoop to pick up the heritage of German expansion across the world." (3) Those prophets of optimism and of laziness have not read the reviews and the newspapers in which the work of German advertisement proceeds during the tumult of

battle. They give no thought to those German commercial travellers whom the blockade has immobilised in South America, to those who have been officially sent back by the Imperial Government, and who "devote themselves there to an active and slanderous propaganda among their clientèle," selling if necessary French or English articles to retain the connection, and booking orders for delivery "end war." (1) The German banks are still out there, dominating the local newspapers by means of advertisements, profiting by the gaps which mobilisation has hollowed in the ranks of the French in a manner which at times was quite thoughtless. The association to which Bernhard Dernburg gave such good advice prepares triumphant revenges for German commerce in Latin America. At our gates do we not see German travellers demobilised for the very purpose of visiting the Swiss market, while with us shortsighted "patriots" celebrate, as if it were a victory, the rupture of our commercial relations with the neighbouring republic?

But it is here, in our own country of France, that plans of industrial reconquest are already being elaborated. Did not the *Chemiker Zeitung* yesterday —already!—canvass the great houses of chemical products who might interest themselves "as soon as peace is concluded" in the recapture of the French market? (2) This tenacity must give food for thought to those who speculate on the ruin of Germany.

Ruin, moreover, which would be quite relative. When to the million and a half of corpses which the Empire admitted—below its breath—at the beginning of September there are added still more corpses, Germany will remain a people of more than 60 millions, among whom legislative measures and propaganda will unite to maintain the birth-rate. When we have taken Alsace away from her—even if we take away the Alsace of 1814, with the basin of the Sarre—she will remain a great producer of coal and of lignite, the first on the Continent, the most threatening com-

petitor of England. No artifice will rob German chemistry of enormous quantities of coal tar, benzol, phenol—even if the vanquished Empire does not find in the direction of the Danube compensations for what she will have ceded elsewhere.

Nor will Germany lose in a single night the benefit of her technical preparation; she will close neither her laboratories, nor her universities, nor her commercial schools. She will continue to produce chemists, engineers, commercial travellers. Poorer, more restricted in their Fatherland, they will hurl themselves more greedily than ever, with longer fangs, on the markets of the globe, and they will find—let us weave for ourselves no illusions—they will find everywhere merchants whose patriotism will offer poor resistance to the bait which a zealous, active, polyglot, and underpaid employee will hold out to them.

It is madness to think of the ruin of Germany. It is a further madness to believe that by a kind of collective boycott we are going to suspend all commercial relations with Germany. One does not suppress, with a stroke of a pen which signs a treaty with a flourish, a market of 60 million beings. One cannot excavate a hole of this size in the economic world. We are only with great difficulty succeeding in making the blockade a semi-reality in actual war. Is it seriously believed that we will be able to maintain it permanently after the war?

Moreover, do we propose, at the very hour when our industries will raise their heads again, to close to ourselves light-heartedly a market where we sell, year in year out, products to the tune of £32,000,000? Shall we be able, even if the annexation of the Sarre basin increases by 17 million tons the insufficient production of the French coal pits, to do without German coal and coke? If metallurgy and the chemical industries are to experience a new revival in France, how will they obtain the 20 million tons of coal which we require from abroad? Shall we supply

ourselves exclusively in England and Belgium? This would surely provoke a rise in coal, it would make impossible the revictualling of our industrial regions contiguous to Germany, which are counted precisely among the most active centres.

Let us not forget, moreover, that the Sarre and Alsace will bring us, besides their coal-fields, factories which are great consumers of coal. As long as we shall not have completely substituted "white coal" for the black variety, we shall be tributaries of a country which extracts each year more than 270,000,000 tons of coal.

We are told that the reconquest of the Sundgau district will free our agriculture from the tribute it pays to the Stassfurt potash. This is to forget that over-production will lead, in the potash market, to a disastrous fall in prices. The milliards which we are shown dormant in the wood of Nonnenbruch will pass away in smoke. Shall we not be obliged, in the interest of the two nations, to conclude an "entente" with Germany on this point? (1) Not 20 but perhaps 50 million tons a year is the quantity which the regenerated French industry will be compelled to demand from abroad in the years following the war. She will not be able to obtain them exclusively from England, especially for the factories of the east, and she will require Westphalian coke.

It is useless to drive this analysis further forward. The Germany of to-morrow will be an economic reality. With this reality we shall be obliged to reckon. And this reality will remain a menace, because vanquished Germany will renounce neither her ambitions nor her methods. The German example thus remains useful to consider, to-day as yesterday.

The lesson of Germany.

What shall we do with this example? To what extent shall we take inspiration from it?

We cannot, as we have said, enter into the details;

give technical advice to our manufacturers and our traders. That would be outside both our scope and our ability. Besides, since the war, duly qualified associations have undertaken this task, and a whole literature is being elaborated in which those concerned will find ample matter for their information. (1) Moreover, some of our industries, our metallurgy, our electro-technique, our chemical industries, have already felt the spur.

What we would wish to do is to extricate the few essential ideas which must in our opinion guide the conduct of our manufacturers and our exporters.

The first is that we must keep ourselves, as regards economic Germany, at an equal distance from the disdainful ignorance which despises, and from unreserved admiration. Several of our compatriots, after one or two hurried journeys in Germany, have returned completely hypnotised, as if overwhelmed by that display of wealth and power. These victims of the "Kolossal" are not always good to listen to, because by dint of magnifying the adversary they robbed our people of the courage to confront a task considered in advance as impossible. All is not, even in Germany —especially in Germany—as beautiful as it appears. She is the country of bluff.

On the other hand, the more serious of our missionaries have thought it wise, on their return from Germany, to scream. It was urgent to shake the apathy, to hustle the self-satisfied slaves to routine, and the example of Germany was there, ready to hand, to excite the drowsy activities. They all, therefore, like Tacitus, gave us their chapter "On the customs of the Germans." And sometimes our manufacturers, very legitimately, "kicked." One of the praisers of Germania was reproached, not without rudeness, because he had contrasted the German industry of to-day with the French industry of thirty or forty years ago. Not without justice he was referred to the splendid mining installations of Lens and of

Béthune, the mines and the metallurgical establishments of the east, the Creusot works, our electrical industries, our agricultural industries, sugar works and distilleries. These have no reason to envy the most famous of German establishments, either as to scientific superiority, plant, or management. "Really!" was the astonished reply.

But how many other French factories have remained immutable for the last thirty or forty years! It is these who must be induced to rejuvenate themselves, and for all of them it is necessary to reform their commercial methods. (1)

What we will not copy from Germany.

There are things which we will not admire in Germany. There are some we must not and cannot imitate.

What we will not copy, firstly, is what there is of dishonesty and disloyalty in the German methods. Neither imitation, fraud, corruption, nor commercial espionage are proceedings which we could bring ourselves to employ—neither we, nor the English, nor our Allies. We should not be able also to admit the systematic generalisation of dumping.

Neither will we copy what is evidently dangerous from the German example. The policy of the German banks may well have succeeded during more than forty years; it must not be forgotten that they danced on a tight-rope—they only avoided the final tumble because they have been drawn into the collapse of all things. We shall resist the temptation of asking our credit establishments to renounce the principle, proclaimed inviolable by Riesser himself, of the division of risks.

Frenzied over-production, which German industry made its law, is another danger. Contrary to what Malthus said of food-stuffs, the products of the modern factory have the tendency of increasing in number more rapidly than the people destined to use them, or at least capable of acquiring them. The crises of

under-consumption are an endemic disease of modern industry. The policy followed by the cartels, a policy invented to cure the evil, only aggravated it, since it made over-production still more active. It could only result in one or other of these alternatives; either the unsold merchandise piled itself up in the shops and the plethora ended in ruin, or, in order to unload the home market at all costs, it was necessary, also at all costs, to find new markets, to have them opened by mild persuasion or by violence.

Ruin or war, which is again ruin—that is the terrible enigma with which history answered the pangs of German industry. Germany has chosen war. We shall beware of giving to production a speed which may make of industrial progress itself a danger for the peace of the world.

However, this eventuality, which I recall here as a matter of record, does not appear to me very formidable, at least as far as it affects France and the other Latin nations. Over-production in a continuous stream, feverish and constant tension of all the energies, are not in our temperament. They may be praised to us without fear; we will always deduct the usual discount from these preachments. Our sense of measure, of proportion, of the affinity between effort and objective, will always triumph over exaggerations. And if it is necessary to lean on one side, let us try rather to incline more in that direction where our nature, our traditional education, and our tastes do not sufficiently bend us.

There will always be a number of things in Germany which it will be neither desirable nor possible to transport to France. Neither in France, nor in England, nor in Belgium, nor in Italy could the conception of State-ruled commerce and industry become established. That would necessitate the remaking of our history and that of the other three since the fifteenth and perhaps the thirteenth century, to abolish Magna Charta, the statutes of the Florentine

or Flemish guilds, the Declaration of Rights. After having crushed German militarism we are not going to reserve for Germany this supreme victory—to organise the world on German lines, and make posterity say, "Germania ferox mitem victorem cepit."

Neither from the State nor from organisations will we accept a discipline which would kill the individual. The value of all nations is the value of the individualities which compose them; they live by their initiatives, their creations, they shine by their genius. We will not make of them nations of imitators; we will not stifle the liberty of the intelligences under the weight of rules and pedantry. The Fatherland of Gramme has not cause to envy that of Siemens, and it has been demonstrated many times over that the triumph of German organisations coincided with a decline in Germany of the truly creative spirit. Let us not extinguish the divine flame.

I go so far as to confess that, as far as France is concerned, I would not see without uneasiness a too complete, too generalised and unconditional adoption of standardised production. Good judges, and men speaking with authority, recommend it to us, however—summon us to convert ourselves to it. (1) I ask that a line should be drawn. I admit that there are not two ways of making a drawn-wire filament lamp of a certain type, or an iron bolt, or even a piece of cloth of current use. The essential factor is to make so many of them that the cost price may be reduced to the minimum, the plant redeemed and in consequence renewed in the shortest possible space of time, the personnel absolutely adapted—the Taylor system—to its task, the machine always ready to produce very quickly and in sufficient quantity the article required. The Bayers and Schuckerts will not be beaten by small unconcentrated enterprises which are provided with mediocre capital and divide their activities over too large a number of types.

But this is all very well, France will always manu-

facture something besides products of everyday use, products of industry on a large scale. It is certainly urgent that she should manufacture more of them, that she should profit from her marvellous resources of iron ore and of "white coal." But on these various fields she will always encounter formidable competitors, in certain respects better armed than she is, and she must not renounce those productions in which she is without a rival. To quote an American— (1)

"In France, the æsthetic side of things is everywhere in evidence: in the decorations of the streets, in the nature of the public monuments, in the shop frontages, in the people's clothes, in the arrangements of flowers, etc. Beauty in the insignificant as well as in the important! The business chief has his inspirations like the musician; the creations of the modiste are just as serious as those of the sculptor; the cabinetmaker has as much respect for antique furniture as the architect for historical monuments. Every one is considered an artist, even in the smallest details of his trade."

This superiority must not be abdicated. It is assuredly desirable that Lyons shall also manufacture cheap cloth and beat Crefeld; but it is far more important that Lyons shall remain Lyons. It is necessary for us to multiply the great workshops of mechanical construction, and to make our own machine tools, but it would be deplorable for the Rue de la Paix to come to resemble, I will not say the Friedrichstrasse, but even the Strand or Seventh Avenue. "In all things," continues our American, "Art requires liberty." Let us not kill art among our learned men, our technicians and our working men, because France must remain for humanity a creator of new values.

What we must imitate. Having enumerated those things which we must not copy, it remains a fact, however, that the German lessons may be very fruitful for us.

The first lesson that Germany gives us is that to make products one must first make producers. Everything we say, everything we do, is useless—useless also the sacrifice of our soldiers—if France, after as before this war, should remain a nation of stationary or even diminishing population. (1) Where are we to find the workers, the engineers, the chemists, the business directors, the travellers, if in the first instance the human material fails us? Only an abundant and increasing population permits of an intense production, and also that acceleration of the internal consumption which determines the acceleration of production and makes exportation necessary. This alone, by a selection operating on broad bases, permits the recruiting of the active functions, and, after all the places by the fireside are filled, that exportation of men which precedes the exportation of products. From the economic point of view at least as much as from the military, this problem will be for the France of to-morrow a question of "to be or not to be."

Without renouncing that artistic taste, that creative imagination which are at once our mark and our power, we shall have nevertheless to renounce our lazy habits, our policy of "wait and see." The time is long past when merchandise could await the customer; however beautiful or reliable it may be, it must go and find the possible purchaser. Seventeen years ago one of our consuls, comparing us with the Germans, wrote: (2) "They produce and place; we—*we want to place before producing.*" It must not be possible to repeat it seventeen years hence.

Between limitless, unmethodical over-production, of which we have described the dangers, and that timidity, that dread of risk—let us say the word, that apathy—from which our commerce has suffered so much, there is room for bold prudence, for energy which knows how to dare.

Notwithstanding the interest which the home

market possessses for the producer in an old and rich country, we must enlarge our horizon. Exportation has been too often considered with us as a supplement—certainly not negligible, but after all secondary—of economic activity; it would be barely an exaggeration to consider it as an end in itself. We are obliged to purchase from without an important part of our supplies of combustibles and raw materials; these must be paid for in manufactured products, if only to procure work and wages for our working population.

But exportation is not a game which can be improvised. It is an art. The German example is there to remind us that it is a science, a technique. The first condition for success in it is to overturn completely the prevalent ideas on commercial competition. Accustomed to consider too exclusively that delightful corner of the planet in which Nature has penned us, we look at competition from the national angle, as between individual and individual, between business firm and business firm. We transport too often these habits of battle beyond our frontiers, while our rivals agree among themselves, unite in groups, and form a phalanx against the common foe. We must study competition in its world-wide aspect as between nation and nation.

The only means of attaining this is to develop the spirit of association. A German manufacturer of chemical products, as M. Haller (1) remarked nearly fifteen years ago, is not only a member of an endless number of cartels for his various products. He is a member of the professional association of the chemical industry born from the workmen's compensation enactment, member of the Union for the Defence of the German Chemical Industry's Interests, member of the German Chemical Society, member of the Union of German Chemists. The periodicals of these societies, their information or advisory bureaus, their agents, are at his disposal. At the meetings of these societies

he is able to meet his colleagues, to elaborate with them plans of concerted action, divide the world into zones of influence, to maintain at joint expense travellers, representatives, and branches.

Moreover, nothing of all this is absolutely new with us. Societies of this kind exist and new ones are coming into existence. Collective enterprises such as the Lyons Mission in China, groupings like the one recently formed to study our relations with Russia, like the National Association for Economic Expansion —these are sufficient indications of what the spirit of association can achieve in France. Never will our manufacturers submit themselves to the crushing discipline which weighs on the German cartels, but we have already our own cartels, which live according to more liberal formulas, and which it will suffice to extend and multiply.

In sum, we must "organise" exportation, as in the midst of battle we have had to organise war.

For this organisation call must be made more and more on science and technique. It is pitiful to read, from the pen of one of our most famous physicians, that "during many long years" he has been asking, *in a country which gave the world the metric system*, for the creation of a national laboratory of weights and measures, and that all his entreaties have "remained fruitless." The result is that, even if the French qualities continue to affirm themselves in the search for perfection, we have allowed ourselves to be outstripped by Germany in *folding wooden metre rules*, in automatic weighing apparatus. In the same way, if the country of Foucault has become a payer of tribute to Zeiss, it is due to the smallness of the resources of our optical laboratories; the same physician would not dare to mention before the whole of Europe the sum of the budget of the chief one of them—that of the Conservatoire. (1) There, also, in our universities, in our technical schools, much has been done. There remains not only much to do, but a mentality to be

changed. It is necessary that our manufacturers shall understand how many unnecessary expenses are saved them, how many economies are made possible, by a systematic use of the laboratory, by a constant resort to the chemists. More than one, of course, of our great mining, metallurgical, dyeing, and foodstuff industries knows it and proves it. More numerous still are those which are ignorant of it, or which through negligence or routine act as if they were ignorant of it. Too many exporters also ignore, or at least forget, that commercial and social geography and political economy are as important elements of success as the knowledge of foreign languages, and that only a lazy merchant relies for such information, in studying a market, on a German middleman. Too many houses, also, forget that technical training is needed even by their secondary staff, and a trade apprenticeship by their workers.

Heirs to a rich patrimony, it is legitimate that we do not wish to compromise it in foolish adventures. All the same, it is important that we should learn to mobilise our wealth more. We have praised our credit establishments' fidelity to the principle of the division of risk. But it cannot be denied that the national activity has not always found in them a sufficient support. There is perhaps another use to be made of the enormous capital they lock up than to lend it to foreign banks, which do with our money and for their profit precisely the same business which ours would not do. That a French merchant may see the counters of one of our credit establishments closed to him, and that a German banker thereupon opens for him a credit thanks to the resources assured to the banker by the French establishment—that is a truly disconcerting situation.

To what extent is there room, by the side of our deposit banks, for business banks? Must we constitute entirely new ones? or make use of those which exist? Is it necessary to create an enormous export

bank? Would it not be wiser, taking inspiration moreover, from attempts already made, to create specialised banks, such as that Franco-Italian institution for which the Conference at Cernobbio appears to have prepared the birth? These questions it would not be possible to decide in a few lines, and to solve them specialists will be able to study with advantage the experiments made in Germany.

What we will ask of the State.

After having said what we expect of individual and associated initiatives, there remains what we must ask of the State.

It is a great deal, negatively and positively.

Negatively, there is the disappearance of the red-tape bureaucracy which in France stifles all initiative, discourages the most tempered determination, enervates the energies. If ports and canals are dug in Germany, if railways are multiplied, and docks constructed more rapidly than in France and better adapted to new requirements, it is because with us there arises between the project and the execution a mountain of paper, and to pierce it is more difficult than to drive a tunnel through the Alps.

Does a chamber of commerce wish to enlarge a dock? From reports to reports, from commissions to councils, from resolutions to decrees, the business takes so long that on the day when the first blow of a pick is made the tonnage for which the dock had been contemplated has become almost doubled! "Supposing," it was said the other day, "that we demand from vanquished Germany, as a part of the indemnity, the delivery of the three great Hamburg-Amerika liners—the *Imperator* of 53,000 tons, the *Vaterland* of 58,000 tons, and the *Bismarck* of 65,000 tons. Why, we would not have a single port in France to shelter them!" (1)

We have effected, even in the last hundred years, a number of revolutions, but in spite of deceitful

appearances we are always in reality governed by the same institutions, the administrative institutions of the Year VIII—institutions excellent in their period, marvellously adapted to the needs of France at the time, a France which had neither railways, motor-cars, telegraphs, wireless, telephones, nor steamships.

From that time there dates also a mass of legislation which is an obstacle to industrial and commercial association. Already, under repeated blows, this obstacle has given way at several points, and breaches have been made in it. It is only necessary to continue this work, to cure ourselves of the sickly fear of combines. Jurisprudence will in this come to the assistance of the legislative task.

Positively we shall not ask of the State that it shall copy the German State; we will not permit it. But we need a little of that "prestige" with which the Empire so generously covers its merchants. The Navy and diplomacy are living forces which must not be neglected. On the day when a Minister decides on the suppression of a naval division in this or that sea, he cannot surely doubt the prejudice he causes to French commerce in those latitudes.

The State should direct, in a sense useful to our interests, that force which constitutes the financial power of France. Germany has perhaps pushed too far, and even too brutally, her policy of loans and orders. We Frenchmen with too great simplicity have too often lent our money to procure orders for others.

It is time that, in a general way, the French State should persuade itself that it has charge of the economic interests of the French nation. Too often, alas! it gives proof in such matters of an indifference only equalled by its incompetence. Our administrations seem totally destitute of the commercial and industrial sense. When they try to intervene in these questions they often do so with a clumsiness which makes their abstention preferable. To certain "pro-

tectors" of national industry, one would be tempted to reply with the Italian proverb, "God save me from my friends."

The public authorities—and in the first place Parliament—seem to place economic problems on the last shelf of their preoccupations. The laws which are meant to solve these problems are voted after interminable delays, after they have ceased to correspond to the necessities of the moment. They are examined in five minutes, at the end of a sitting of ordinary politics; they are adopted without discussion, in an empty Chamber. That is where the disastrous policy of localism triumphs without reserve. It is necessary that the idea of the general interest should be made to prevail over this parish patriotism.

Only at this price shall we have, instead of a sprinkling of little ports along our coasts, some harbours constructed according to modern data, plentifully supplied with plant, and capable of operating the concentration of traffic. Only at this price will we be able to realise a systematised railway policy, a coherent system of navigable waterways, an efficacious organisation of shipping lines. The State owes them to us. The vital interest of the nation demands that it shall give them to us.

It will be necessary, also, to rejuvenate our laws on industrial ownership, to create for us a legislation on trade marks which is not an obstacle to the spirit of invention. It will be necessary, too, that the international protection of industrial property shall be made real and earnest.

Far more delicate will be the establishment of a systematic Customs policy. It is not a matter of declaring for or against a certain theory; it is a matter of taking the facts into account, of defending oneself against an adversary who is always on the watch and always ready to have recourse to every method, to evade every international law. *We can see only one means of acting with efficacy, and that is not to act alone.*

It is to be wished that the Entente, after having triumphed on the field of battle, shall find itself still united to-morrow in the domain of economics—an Entente enlarged by the accession of those nations who will wish to accept the conditions of a new Pact of London. If the most-favoured-nation clause must reappear in future commercial treaties, it is important that the effect of it shall be limited only to the signatories of this declaration—that is to say, to those nations which will submit to it in good faith, in all reciprocity.

It is also by means of this Entente that we shall be able to fight against dumping; it will be necessary, as between these partners, to establish an international system inspired from the Canadian legislation. Objection is raised that such legislation is difficult to apply because it is hard to obtain exact information on the real prices on the German home market. This legislation, however, in the hands of a single State of 7,000,000 souls, has shown itself efficacious. Will it be less so when it is handled jointly by several of the greatest Powers of the world?

To boycott Germany is a dream, a nightmare. But here as elsewhere the Entente has the duty of making Germany powerless for harm, of re-establishing loyalty in international relations. If we are inspired by this policy, not only will France regain the place to which her position on three seas, the wealth of her soil, the qualities of her inhabitants, and her history entitle her, but we shall also have restored to every nation, to the small as to the great, the means of developing freely the resources which they derive from Nature and from their genius. (1)

NOTES

Page 17 (1). Even in 1887 the tonnage of steamers (above 1000 tons) was : France 722,200, Germany 628,200; in 1895 the figures were 864,500 and 1,306,700 respectively. Hamburg tonnage increased from 3,704,000 in 1885 to 6,256,000 in 1895, exceeding that of Liverpool; Bremen tonnage grew from 1,289,300 to 2,184,700.

Page 18 (1). "Zur jüngsten deutsche Vergangenheit," 1906.

Page 18 (2). Figures collected by Steinberg, "Die Wirtschaftskrisis, 1901," Berlin 1902.

Page 18 (3). In 1912 the figures were : pig-iron 18 million tons; coal 180 million tons (Bonnefon, "Les causes économiques de la guerre" in the *Revue de Paris*, Jan. 15, 1915). In 1913 coal and lignite exceeded 270,000,000 tons.

Page 18 (4). Steinberg, book quoted (1).

Page 18 (5). G. Stresemann, "La politique mondiale de l'Allemagne" (*Revue économique internationale*, 1913, III) : "The agricultural Germany of former times has made way for a State in which the idea of exportation has taken a preponderating position." The relation between industry and commerce on the one part and agriculture on the other is as $2\frac{1}{4}$ is to 1. Same ideas already in 1904 by Lamprecht, work quoted.

Page 18 (6). Bonnefon, article quoted. W. J. Ashley ("The Economical Side of the European Conflagration," *Scientia*, 1915, No. 1) establishes that the commercial-industrial population represented 45 per cent. of the German population in 1882, 50 per cent. in 1895, and 56 per cent. in 1907.

Page 19 (1). The Helfferich report is commented on by Bonnefon (article quoted) and by D. Bellet, "La Vérité sur l'Enrichissement de l'Allemagne" (*Revue d'économie politique*, March-April 1915). In 1894 the deposits in the Prussian savings banks barely exceeded 4 milliards of marks, in 1911 they exceeded 11,800,000,000. The total for the Empire increased from 6.8 milliards in 1895 to 8.8 milliards in 1900 and to 17.8 milliards in 1911.

Page 20 (1). Paul Léon, "Fleuves, Canaux et Chemins de fer," Paris, 1903, p. 194.

Page 22 (1). The metaphor is Lamprecht's, who calls the German Empire "the Germanic *tentacular State*" (the words underlined in French). After him, M. G. Preziosi ("La Germania alla conquista dell' Italia," Florence, 1915) speaks of "la piovra germanica."

Page 23 (1). Wool in the first place, and then cotton.

Page 24 (1). Looking through the *Frankfurter Zeitung* of September I find that the Bismarckhütte declared for the period 1914–15 a dividend of 15 per cent. (against 9 per cent. for the preceding period), the Böllberg mills 7 per cent. (against 9 per cent.), the Chemnitz Machine-tool Union 15 per cent. (against 8 per cent.), Bremen gas and electricity 24 per cent. (against 10 per cent.). My information permits me to believe that this extraordinary prosperity has reached its limit. The activity of the British submarines in the Baltic may be the signal of the collapse of German metallurgy.

Page 25 (1). *Jugend* article (August 1912), reproduced in "Zum Weltvolk hindurch!" (Stuttgart, 1915), p. 8.

Page 26 (1). Von Below, "Militarismus und Kultur in Deutschland" (*Scientia*, 1915, II), makes this suggestive statement: "The spirit of discipline which rules in the German army is also that to which we owe that economic growth which has drawn to us England's hatred. Militarism is the school of our workers."

Page 27 (1). Eugenio Rignano, "Les Facteurs de la Guerre and le Problème de la Paix" (*Scientia*, 1915, VI, and separately).

Page 28 (1). I find, on re-reading this, that the same ideas are excellently expressed in an article by M. D. Bellet, "Le Commerce Allemand et les Causes de son Développement" (*Revue des Sciences politiques*, August 15, 1915, p. 62), in which the line is drawn between the good and the bad in German methods. On the other hand, one is astonished to see M. Y. Guyot (*Journal des Economistes*, August 15, 1915) criticise with severity Maurice Schwob, the compilers of the consular reports, etc.,—in short, all those who, by praising the ingenious activity of the Germans, try to shake the apathy of our compatriots. He accuses them of giving German industry and commerce a free advertisement! It is true, of course, that the Germans seize on our confessions; the *Deutsche Export Revue* recently reproduced the analysis given by the *Temps* of a lecture by M. Victor Cambon. But are we going to allow our traders to remain in ignorance of the dangers which threaten them, simply in order not to give this pleasure to our enemies? Such patriotism would be of an ostrich-like blindness.

Page 29 (1). "Revue des Cours et Conférences," 1899, I. I also take the liberty of mentioning: Grenoble Chamber of Commerce, lecture on Oct. 15, 1901, by M. Hauser, on the

economic situation in France and the new conditions of French commerce.

Page 29 (2). In the same way M. Charles-Roux says in a report, "Lord Curzon instances the conduct and work of the French consuls as an example to be emulated by the English consuls."

Page 29 (3). These reports ("Renseignements Commerciaux," published by the Minister of Commerce) become more and more developed and documented. Some of them are veritable economic monographs on importing countries.

Page 31 (1). Some of them, moreover, are already beginning to acquit themselves admirably. The various technical communications published in the 1915 bulletins of the Society for the Encouragement of National Industry constitute from now a mine of information on which those concerned may draw at their will.

Page 33 (1). Lévy-Bruhl, "Causes économiques et politiques de la conflagration européenne" (*Scientia* 1915, I, and separately; F. Alcan, editor).

Page 34 (1). Lamprecht exposed (in 1904) the impossibility of greatly extending the home market without increasing recourse to exportation. He pointed out the rupture of the equilibrium between agriculture and industry which develops with most terrible rapidity; hence the general tendency "to an industrial State, to a world-policy and to Imperialism."

Page 36 (1). We must add in justice that the picture which we present here is gradually improving. Only under exceptional circumstances do the manufacturers enter directly and regularly into contact with the men of science, but these exceptions become daily more numerous.

Page 37 (1). See Gaston Raphaël, in *Cahiers de la quinzaine*, eighth cahier of the ninth series.

Page 38 (1). We repeat that to this general state of affairs there exist already, and in increasing numbers, happy exceptions. They are infinitely more rare in England than in France. See Henry le Châtelier, "Du Rôle de la Science dans la Lutte contre l'Industrie Allemande" (*Bulletin* de la Société d'Encouragement, 1915, II, p. 174); in the same *Bulletin*, E. Fourneau, "La Fabrication des Produits Pharmaceutiques" (III, p. 444). On the rôle of scientists, not merely connected with the factory but actually in it, see *Ibid.* II, p. 228, M. Berlemont's contribution on scientific glass-making.

Page 39 (1). Compare, for the chemical industries, what M. Haller, in his famous report on the Universal Exhibition of 1900 (*Rapport*, Group XIV, class 87, Vol. I, 1902, p. xxiii), says of the central library at Elberfeld-Leverkusen, "a library which is kept constantly up to date."

Page 40 (1). B. Brunhes, "Une industrie scientifique en Allemagne: la fondation Carl Zeiss à Jéna" (*Bulletin* Société des Amis de l'Univ. de Dijon, 1898), and V. Cambon, "L'Allemagne au Travail," p. 116–123. This firm's museum, with its 25,000 patterns, is a pendant to the collection of lithographic stones at Gotha.

Page 40 (2). "Das Studium der technischen Chemie an den Universitäten und technischen Hochschulen Deutschlands," Brunswick, 1897; see also M. Haller's report, p. xii.

Page 40 (3). *Ibid.* "One of the most illustrious chemists of Germany said recently to a friend of mine who visited him in his laboratory: 'What makes the power of German science and industry is the fact that they are closely united. All the factory chiefs, all the chemists, are our pupils, and we come to their assistance unceasingly; they repay us for it by keeping their powerful plant always at our disposal." These ideas have been popularised, at the same time and also later, by M. G. Blondel. See also Raphaël-Georges Lévy (*Revue des Deux Mondes*, 1898, Feb. 15 and April 15).

Page 41 (1). "L'Allemagne au Travail," p. 45.

Page 41 (2) "Hamburg and Contemporary Germany," pp. 33, 103. P. 117: "She has invented little, but she has worked much. She has been less epoch-making in her discoveries than England or France, but she has been more laborious, more scientifically enlightened, more reliant on the indications of science, and less slow to conform to them." It could not be put better.

Page 42 (1). See F. Fischer, book quoted.

Page 42 (2). D. Bellet, "L'Industrie des Matières Colorantes en Allemagne et Ailleurs" (*Journal des Economistes*, July 15, 1915).

Page 42 (3). Paul de Rousiers, "Hambourg," p. 103. In quite another domain—but no domain is negligible in economic matters—a recent consular report (Malaga, 1913) makes an analogous statement. Germany has defeated French horticulture (and we know how admirable is the development of horticulture in the region of Malaga) in seeds and seedlings, "thanks to special methods of selection. . . . Specialists extremely well taught and well versed in the matter busy themselves with the classing of seeds." Hence the increase of the importation of German seeds to 230 tons, against 14 from France.

Page 43 (1). Quoted by the *Iron Trade Circular*. Another typical example is supplied by the ceramic industry (Société d'Encouragement, 1915, I, p. 91). The French industry is at present in want of Seger cones for the measurement of temperature in the kilns. These cones, "a commercial application of work done at Sèvres by Lauth and Vogel,"

were supplied by the laboratory of the "Ton Industrie Zeitung," under the control of the royal factory at Charlottenburg. Sèvres is not organised, either industrially or administratively, to supply them to our industry.

Page 43 (2). V. Cambon, "L'Allemagne au Travail."

Page 44 (1). Blondel, "L'Essor Commercial et Industriel du Peuple Allemand," p. 91.

Page 44 (2). M. Wahl (report on organic dye-stuffs in Société d'Encouragement, 1915, III, p. 492) notes that the collection of aniline dye patents formed for the years 1877 to 1887 a unique volume of 600 pages. At the present time, two years alone fill 1200 pages, by reason of the 300 patents a year, nearly one a day!

Page 45 (1). Fact quoted by M. Y. Guyot.

Page 46 (1). P. de Rousiers, "Hambourg," p. 89 and following.

Page 46 (2). D. Bellet, "Le Commerce Allemand (*Revue des Sciences politiques*, Aug. 15, 1915).

Page 46 (3). V. Cambon, work quoted, p. 52 These sums are, each year, "immediately re-employed in material or in extensions. How often have I heard it said that one should profit from the years of crisis to renew one's material!" M. Cambon quotes as an example the Hamburg-Amerika, which sells 40,000 to 60,000 tons of shipping each year because its vessels must never be more than twenty years old. Moreover, with a share capital of £5,000,000 and debentures of £3,200,000, "its material alone is worth three times more."

Page 47 (1). P. de Rousiers ("Hambourg," p. 134) notes that in Prussia there is only one type of express locomotive, of goods-train engine, etc., which enables the constructors (1) to receive at one time an order for twenty similar engines; (2) to economise in plans, models, etc; (3) to make speedier deliveries; (4) to manufacture certain parts in advance.

Page 47 (2). David Mennet, "De la Méthode à Suivre pour Substituer les Produits Français aux Produits Allemands et Austro-Hongrois" (Fédération des industriels et Commerçants, Jan. 1915, and reproduced in the *Bulletin* of the Paris Chamber of Commerce). The characteristics of standardised work are well explained by M. Delloye (Société d'Encouragement, 1915, III, p. 442): "When we need, for instance, to obtain an average of 100 units, we make the necessary installations for eighty of them and reckon on expedients to produce the last twenty. . . . The German prepares himself to make 150 without effort."

Page 48 (1). The consular reports from Persia indicate the discouraging cheapness of German articles. In Spain (1913), "though the German electrical motors are worthy of appreciation, the apparatus is often of mediocre quality and

would with difficulty find a purchaser on another European market." The very low prices rout all competition. But it can be foreseen that the Spaniards will tire of being badly served.

Page 52 (1). The failures of 1901 have remained famous. In 1911 a still more formidable crisis was on the point of bursting; more recently, a whole series of failures, one to the tune of £1,000,000. Failure of the "Princes' trust" in 1913.

Page 53 (1). The *Arbeitsmarkt* gives as the male applicants for 100 situations: June 1899, 100·7 only; Dec., 144·6; but in June and Dec. 1900 respectively, 115·7 and 202·1. For applicants of both sexes the figures were: Oct. 1899, 135·3; Oct. 1900, 198·1. In Berlin, Nov 1, 1901, it was estimated that there were 93,000 completely unemployed or employed for a few hours at low wages. Two years ago there were estimated to be generally 100,000 unemployed in Berlin.

Page 53 (2). M. Paul de Rousiers ("Hambourg," p. 156) opposes the idea, rather prevalent of late in France, that the superiority of German industry is due to low wages. In general high wages are, on the other hand, the sign of a systematic and prosperous industrial organisation. "The total of wages is in no way the cost price of manufacture," which alone matters. In fact, the Crefeld spinner (Schulze-Gaevernitz noted it already in 1892) earns more than his Macclesfield rival, because the orders are larger and more regular and the looms more perfected. Inversely, if the cotton industry of Saxony and Silesia pays lower wages than that of Lancashire, it is also less prosperous. M. Delloye (article quoted) says also, "In practice, in a large number of cases, wages have become higher in Germany than in France." See Hillairet, Soc. d'Encouragement, 1915, II, p. 246.

Page 54 (1). Stresemann, article quoted.

Page 54 (2). Paul Arndt, "Deutschlands Stellung in Weltwirtschaft," Leipzig, 1908. Anticipatory description of the blockade.

Page 55 (1). F. Friedensburg, "Die zukünstige Erzversorgung der deutschen Eisenindustrie" (*Preussische Jahrbücher*, May 1913). He believes, moreover, that the fears of an iron famine are much exaggerated. While describing the growing rôle of France as a supplier of minerals to Germany, he believes that France will place no obstacles in the way of exportation, because she is too poor in combustibles to absorb the production of her enormous deposits; the necessity for obtaining German coal will silence the protectionist and jingo tendencies. In the same way Sweden and Spain, who supply two-thirds of the minerals imported into Germany, are countries without industry. But this means that Germany, if she wants minerals, must export coal, coke and metallurgical products.

Page 57 (1). Stresemann, article quoted.

Page 58 (1). Maurice Millioud, "La Formation de la Caste Dominante Allemande," p. 78.

Page 58 (2). Steinberg, work quoted, wrote already in 1902: "All her development, in accordance with the natural course of events, is directed towards the industrial and exporting State." The same foresight was shown in 1904 by Lamprecht. Albert Hesse ("Conrads Jahrbuch," 1910): "We must export to be able to import, and we must import to be able to work and live."

Page 58 (3). Haller, "*Rapport* . . .," 1900, p. xxi.

Page 61 (1). A. Sayous, "Les Banques de Dépot, les Banques de Crédit and les Sociétés Financières," 1901, p. 278. See also E. Depitre, "Le Mouvement de Concentration dans les Banques Allemandes," 1905, p. 49: No banks "having exclusively the character of a deposit and credit bank . . . or of a business bank. . . . They all combine to a greater or lesser extent the functions of banks of deposit, of credit and of business." F. Vallier, "Les Banques d'Exportation à l'Etranger et en France," Grenoble, 1911.

Page 62 (1). Riesser (the title of this leading work is in itself an indication of the rôle played by the banks in the ensemble of German economic life), "Die deutschen Grossbanken und ihre Konzentration un Zusammenhang mit der Entwicklung der Gesamtwirtschaft in Deutschland" (The great German banks and their concentration in their relation with the general development of German economy), Jena, 4th edition, 1912 (1st ed., 1905).

Page 62 (2). Riesser, p. 41 and following. Loewenstein, "Geschichte des Württembergischen Kreditwesens," Tubingen, 1912, p. 194: Industrial credit was unknown in Germany, "and was first brought to some importance by the imitation of the French 'Crédit mobilier.'" Lichtenberger, "L'Allemagne Moderne," 1907, p. 20.

Page 63 (1). "L'organisation du crédit en Allemagne et en France," 1915.

Page 64 (1). E. d'Eichthal. The paper-money episode in the second part of "Faust" (Comptes rendus Académie des Sciences morales, 1915, June, p. 650 *et seq.*).

Page 64 (2). See Riesser on all these facts. He divides the history of the great German banks into two periods: before and after 1870. See also the pamphlet by d'Ezio-M. Gray, "L'invasione Tedesca," which contains very weighty passages.

Page 66 (1). See especially the quoted work of André Liesse.

Page 66 (2). Besides the classic work by Riesser, consult especially Depitre. See p. 202, on how the Deutsche Bank

group was formed after the absorption of the Frankfurter Bankverein in 1886. It should be noted that the German banks have fewer branches than the French: they proceed differently. See Feiler, "Das Bankwesen" in the *Weltwirtschaft* of von Halle, 1st year, 1906.

Page 67 (1). The methods vary. In 1897 the Deutsche Bank acquired shares in the Hannoversche to the value of £200,000 and then of £124,950 in 1899. In 1898 it guaranteed the issue of new shares by the Oberrheinische. In 1902 it increased its capital from £7,000,000 to £8,000,000 to take over the Duisburg Ruhrorter Bank. In 1902 it exchanged Duisburg shares of £200,000 for £150,000 worth of the Essener Credit Anstalt (of which it already owned £10,000 worth), etc. The result is always the same: the establishment of the domination of the stronger institution.

Page 68 (1). Ezio-M. Gray (work quoted) estimated that, besides the great private banks (Rothschild, Bleichroeder, Hausemann, Mendelssohn, etc.), there were 480 joint stock banks with a fully paid-up capital of £170,000,000.

Page 69 (1). Bendix (Ludwig), "Germany's Financial Mobilisation" (in the *Quarterly Journal of Economics*, August 1915). Compare this very optimistic study with the remarkable objectivity shown in M. Ch. Rist's articles. ("La préparation Financière de l'Allemagne," in the *Revue de Paris*, March 15, 1915.) See also R.-G. Lévy, in *Reforme Sociale*, April 1915, and A. Liesse, work quoted.

Page 70 (1). Millioud, work quoted, p. 97.

Page 70 (2). F. Vallier, "Banques d'Exportation."

Page 70 (3). Riesser (p. 302). The issues, he says, are the keystone of the relations between banks and industry; the current accounts are their corner-stones. See also Loewenstein, work quoted.

Page 71 (1). Ezio-M. Gray, work quoted.

Page 71 (2). I utilise here the oral indications of a French merchant whose trade lies abroad, who has been able to see the mechanism of the German banks in operation, and who has even received offers of credit from these banks. See Millioud, p. 106. By means of "Trassierungskredit," the bank supplies the borrower without a deposit not with money but with a bill. The borrower has it discounted at another bank, which in its turn draws on the first bank. M. Millioud indicates also the "Saisonskredit" for merchants who do a fashion trade, etc.

Page 72 (1). Here, according to the Syndical Chamber of Printing Machines (Soc. d'Encouragement, 1915, I, p. 33), is the mechanism of operation: In this speciality, competition has created long credits of 24, 36 and 60 months. The printer buys a machine for £400, payable in 50 months, and gives the

seller 50 bills of £8 each. The latter hands them as security to the bank, plus a bill for £400 accepted by himself. The bank, on the due date, replaces the £400 bill by a new one for £376 (it has cashed three bills of £8), then three months later one for £352, etc. It rediscounts these successive bills at French establishments, which discount them at 5, 5½ or 6 per cent. with the money at 1 per cent. which they receive from their depositors.

Page 73 (1). I make use here, besides Riesser, of information from a Parisian financial authority. Riesser (p. 228) finds uncovered credit—on account of the precise knowledge of the debtor's title to confidence—much less dangerous than the other errors of the banks—too hasty and too prolific concession of credit; long-term credit, neglect of the principle of the division of risk, faulty selection of cover. "I think, therefore, that in the balance sheets of banks the item 'uncovered credit' generally conceals fewer dangers than the item 'covered credit.'" He adds, it is true, that the most dubious covered credits are those which have emanated from former uncovered credits. See Sayous, "Banques de dépots," p. 117 and 285.

Page 74 (1). Documents of 1915.

Page 74 (2). Riesser, p. 302. Millioud, p. 97: The banker, "instead of limiting himself to his rôle of lender, placed his capital—that of the public—in industry, and kept a firm hand on enterprises which he entered in his qualification of an administrative adviser." Such a financier is on forty-four boards; sixteen of them divide among them 437 places on various boards.

Page 74 (3). Handelsmuseum, Jan. 2, 1913.

Page 74 (4). Sayous, p. 286; and Riesser, p. 285.

Page 75 (1). Riesser, p. 286. "There is no doubt that the persistent acceptance by credit banks of excessive commercial risks is contrary to the principles of a healthy banking policy; the offenders against this rule receive their punishment in almost all cases and in a very decided manner." M. R.-G. Lévy ("Les banques françaises pendant la guerre," in the *Journal des Economistes*, Aug. 15, 1915) insists that in future the distinction in France between deposit banks and commercial banks should be even more strict, as strict as in England.

Page 76 (1). Riesser, pp. 340, 580–4.

Page 76 (2). Millioud, p. 102.

Page 76 (3). Sayous, in the *Revue Politique et Parlementaire* (July 1899), and "Banques de dépôt," 1901. Sauvaire-Jourdan, "Les Darlehnskassen" (*Revue d'économie politique*, Jan.-Feb. 1915): "imprudent habits . . . somewhat minimised during these last few years under the energetic intervention of the President of the Reichsbank, but still disquieting, which

make them immobilise a great part of their resources in participations, partnerships, and in acceptances ceaselessly renewed, and enormously increase their portfolios of securities. . . ." Ch. Rist. (*Revue de Paris*, March 15) has spoken of that conference of the chief bank directors called by the director of the Reichsbank in Feb. 1912, when he asked them, as he had already done in 1908, to strengthen their reserves. But there was in this less a change in the German banking system than a measure of preparation for the war.

Page 76 (4). "Lombard Street," p. 8. The page is curious. The merchant who makes £2000 on his capital must, to be able to draw 10 per cent. of it, make £200 profit. Another, who only has £400 and who borrows £1600 at 5 per cent. must pay £80 in interest and retains £120 net profit, or 30 per cent. (and not 10 per cent.) on his own capital. As he can be satisfied with a smaller return than 30 per cent. he is able to do without a part of it, lower his selling prices, "and chase from the market the merchant of the old school, the merchant who works with his own capital."

Page 77 (1). Riesser, p. 345 *et seq.*; Richard Hauser, "Die Deutschen Ueberseebanken," Jena, 1906; Feiler, "Bankwesen;" Ant.-P. Brüning, "Die Entwicklung des ausländischen, speziell des überseeischen deutschen Bankwesens," Borna-Leipzig, 1907; Fritz Diepenhorst, "La Concurrence Anglo-Allemande" (*Revue économique internationale*, 1914, I, p. 253 *et seq.*) He makes this peculiar remark: The London bankers who organised the system of English exchange were of German origin and had transported the international market of exchanges from Amsterdam to London.

Page 79 (1). The Banco Alemán Transatlantico of Buenos Ayres writes on April 30, 1915, to the board of the Deutsche Uberseeische Bank, Berlin: "We have read with great interest your explanations on the subject of the extension of the system of the mark. We always place Germany at the head of our exchange tables. It will be necessary for German exporters to apply themselves vigorously to making out their bills in marks, and not, as they have done so often up to now, in francs or sterling."

Page 79 (2). It abandoned its Zanzibar establishment in order to confine itself to Latin America. This specialisation will become a rule. The banks choose the regions where German commerce has already penetrated. They become interested in, or absorb, the companies already installed there (Vallier, work quoted, p. 123).

Page 79 (3). Or Banco Mejicano de commercio y industria, with headquarters at New York, created in 1906 with the support of the Speyer-Ellissen bank.

Page 80 (1). I here supplement Riesser by means of details personally supplied to me by M. Knoblauch, of the Spanish Chamber of Commerce in Paris. One of the former employees of the Banco Español Alemán is to-day a director of the Bank of Castile. Must we see in this a new outgrowth of the Deutsche Bank?

Page 80 (2). In 1888 the two united banks had signed a convention with Krupp for the concession of a Venezuelan railway. It was the source of endless annoyance. The Disconto, as a member of the Rothschild "consortium," interested itself, moreover, in numerous Austro-Hungarian railways, in Argentine loans, and in Russian, Finnish and Roumanian loans and railways.

Page 80 (3). The Darmstädter had in 1854 a branch in New York which was liquidated in 1885. In Paris it created a first branch in 1857, which was wound up in 1871; a new one in 1873, which closed in 1877. The Deutsche Bank took an interest to the extent of £40,000 in the bank of Weissweiller and Goldschmidt in 1873; in 1876 it reduced this holding by half, and then liquidated it. Riesser (p. 359 *et seq.*) and Eugen Kaufmann ("Das französische Bankwegen," p. 151), remark that the great German banks have not succeeded in establishing branches, properly speaking, in Paris. The Berliner, the Darmstädter, the Dresdner, the Commerz und Disconto Bank and the bank of Behrens, Hamburg, had their Paris representatives in 1911, while the Dresdner owned the majority of the shares of the Allard bank and had a seat on the board. Kaufmann affirms also that the bank of Alfred Gans & Co. was controlled by the Deutsche Bank.

Page 80 (4). It took over, in 1890, with the assistance of the Berliner, the bank of Marmorosch, Blank & Co. of Bucharest.

Page 81 (1). See the complete study by M. Giovanni Preziosi, "La Germania alla Conquista dell' Italia," Florence, 1915, and "La Banca commerciale e la penetrazione tedesca in Francia e in Inghilterra," *ibid.*, also the numerous articles published by the review in which these two first appeared—*La Vita Italiana.* See Ezio-M. Gray, "L'Invasione Tedesca in Italia," Florence, 1915. The Credito italiano (Rome, 1895) is a dependant of the National Bank (Riesser, p. 370). R.-G. Lévy, "L'Italie Economique" (*Revue des Deux Mondes*, July 15, 1915).

Page 81 (2). Vallier (p. 119) states with reason that the overseas banks, having to fight against English preponderance, had to be born strong. They had to be created from the initial stage. Thanks to the grouping of the powerful banks who give them support and credit, "they find themselves, from the beginning, in the solid condition of an old-established and

known bank." When the South American exporters read in the special reviews, "Deutsche Ueberseeische Bank. Capital: Marcos 30,000. Casa central: Berlin W., Wilhelmstr. 71. Fundado por el 'Deutsche Bank,'" it inspires them with confidence. Inversely the Deutsche Brasilianische Bank foundered because the mother-bank (National-bank für Deutschland) was not strong enough to support it in the hour of crisis.

Page 82 (1). Since 1907, notwithstanding the English. It created a commercial bank, which obtained the concession for the coining of silver money, and divides with the Persian Government its profits over 12 per cent.

Page 82 (2). "To favour the Germano-Roumanian business relations," Riesser, p. 360, and Vallier, p. 109. Well received by the people, it threw itself imprudently into business with cereals, from which it suffered heavy losses in 1902–3. It created depôts for making advances to dealers in grain. Helped by the excellent crops of 1904–6, it escaped the dangers of monoculture by interesting itself in sugar and oil. It was not till 1906 that the Disconto offered to the public, at a great profit, the shares of the Roumanian Bank. It had six branches in 1911.

Page 82 (3). Major part of the capital German. See above for the Crédit Anversois.

Page 83 (1). Ansiaux (*Action Wallonne*, Nov. 16, 1907, quoted by G. Andrillon, p. 147): "The great German bank is before all else an instrument at the service of national expansion. . . . Pioneer of exportation, it creates for it, almost everywhere in the world, points of financial support which may be compared to those coaling stations with which England has dotted the route from the Indies. . . . Abroad, and notably in Belgium, it is especially the bank to capture which every effort is made. Then one will learn on this powerful foundation to introduce the Germanic element in the most diverse enterprises."

Page 83 (2). Of Basle, connected with the Berliner Handelsgesellschaft.

Page 83 (3). Eug. Kaufmann, "Das französische Bankwesen." Among the creations abroad of the Banque de Paris et des Pays-Bas, he points out the Société Norvégienne de l'Azote (1905). This company has formed a "community of interests" with the group Badische Anilin und Sodafabrik, Elberfelder Farbenfabrik, A. G. für Anilin fabrikation, for the mutual exploitation of a force of 40,000 horse power.—The Parisian establishments defend themselves to the utmost from having any other relations than those of normal business with German finance (we recall the protest of the director of the Banque Franco-Italienne).

Page 83 (4). Quoted by Ezio-M. Gray. Siemens says: "Every bank and *every railway*. . . ." He thus establishes a kind of equation between the material instrument of penetration represented by a railway and the more subtle weapon of a financial establishment.

Page 83 (5). Created in 1897 by the Berliner Handelsgesellschaft.

Page 83 (6). With a capital of £2,000,000, plus £520,000 preference shares and £1,200,000 debentures.

Page 84 (1). Lamprecht, work quoted, II, p. 566, insisted even then in a very lively manner on this rôle of the banks in the history of Bagdad.

Page 84 (2). From 1898 to 1904 were created the Deutsch-Atlantische, Osteuropäische, Deutsch-Niederländische, Nordseekabelwerke, and in 1908 the Deutsch-Südamerikanische Telegraphengesellschaft.

Page 84 (3). 1899: Schantung Bergbangesellschaft and Schantung Eisenbahngesellschaft.

Page 84 (4). Actiengesellschaft für überseeische Bauunternehmungen. Let us note here, as we have done in the case of enterprises within the German Empire, that the banks are not content to make issues and to take a commission; they *acquire interests* in business affairs, occupy seats on the boards, etc.

Page 85 (1). The summing-up of Kaufmann ("Das französische Bankwesen," p. 142) is worthy of attention: "The French oversea banks—partly in consequence of that lack of the spirit of enterprise and initiative which characterises in general the French credit banks compared with our own, partly and specially on account of the smaller importance of French oversea commerce in comparison with the English and the German—only play a very modest rôle, apart from the French colonies.

Page 85 (2). I have profited here by the conversation of M. Otto Bemberg, the president of the Argentine Chamber of Commerce in Paris.

Page 86 (1). See especially the Consular reports of 1914 on Roumania, Ecuador, Brazil, also that of 1913 on Denmark.

Page 86 (2). Remarkable report by M. Lefeuvre-Méaulle on Roumania. In France, "foreign paper, *even short dated paper*, is rejected at the French discount counter." How then can we be astonished at the following fact of which I was informed in September by the French Chamber of Commerce at Geneva?: "By a singular anomaly the agency of a French establishment of this town refuses to accept a *French banknote* as security. This case occurred yesterday. One of our compatriots, bearer of two French notes of £40, presented himself to . . . The latter refused him any advance on the

said notes. The . . . (a Swiss bank which has adopted German methods), to which he then applied, lent him 80 per cent."

Page 86 (3). *Bulletin* de la Chambre de Commerce de Paris, March 13, 1915.

Page 87 (1). Nitti, "Il capitale straniero in Italia," Bari, 1915, and "Accademia di scienze morali" of Naples (Feb. 28, 1915): Belgian capital in Italy represented a sum of £7,280,000, French £5,920,000, English £1,840,000.

Page 87 (2). Unpublished memorandum on the creation of a Franco-Italian bank, submitted at the time to Chambers of Commerce and other French institutions.

Page 88 (1). Notes by M. Pantaleoni and G. Preziosi in the *Vita italiana*, Nov., 1915.

Page 89 (1). Feiler ("Bankwesen") puts it crudely: "Combination of general policy and banking policy. Foreign loans and home policy. Grants of loans for the support of the policy." Riesser, p. 434: "We shall be persuaded in the future in Germany, more firmly than in the past, that industrial equipment, commercial enterprises or the use of funds involve not only capital and labour, but also the political influence of one nation on another," and he almost takes to his account Dove's formula ("Bankarchiv," April 15, 1911: "The condition of debtor has taken in modern economic existence the place of the payment of tribute by one country to another, as was the usage in the periods of rudimentary civilisation."

Page 89 (2). Riesser, p. 428.

Page 89 (3). *Gazette de Lausanne*, Sept. 10, 1914. Of £51,000,000 capital, £24,520,000 is insured in foreign companies. The total of the premiums paid abroad is £1,120,000. The French companies have "a very considerable Swiss portfolio," while the funds of the German societies "are now converted into war loans." Since the publication of this article, the Federal authorities have busied themselves about this question and have elaborated the draft of a law.

Page 89 (4). Riesser, pp. 197–206.

Page 91 (1). M. Revelli, French consul at Oporto, writes in 1913: "The war to the knife waged by producing, and consequently exporting, nations has changed by enlarging the mission of the banks to facilitate the economic relations of peoples." They no longer limit themselves to discounting, to opening accounts for their clients; the banker has become "their active collaborator, supplying them with information about the buyers, choosing their agents, even drawing their attention to new business, taking interests in enterprises." Here is a summary of German banking activity. See also the justly famous reports from our excellent commercial attaché in London, M. Périer.

Page 92 (1). We will confine ourselves principally to examining here the cartels in so far as they are instruments of exportation. For the internal organisation of these syndicates, we refer the reader to the numerous works quoted.

Page 92 (2). Paul de Rousiers, "Les Syndicats industriels de producteurs," 2nd edit., 1912 (1st edit. 1901). See Robert Liefmann, "Die Unternehmerverbände," Freiburg im Breisgau, 1897; Id., "Die Kontradiktorischen Verhandlungen über deutsche Kartelle" ("Conrads Jahrbuch," 1903, XXV, p. 638); Et. Martin Saint-Léon, "Cartels et trusts," 1903; *Bulletin* d'informations du Comité des Forges, *passim;* J. Chastin, "Les Trusts et les Syndicats des Producteurs," 1909. In reality the juridical organisation is often more complicated. In the Rhenish syndicate there co-exist (1) a collectivity of mine-owners; (2) a coal sales society. By contract, the former undertake to execute only the orders transmitted by the latter.

Page 93 (1). *Bulletin* du Comité des Forges, 1912, p. 198 *et seq.* Commodities which are sold in large quantities and the differences in quality of which are little noticeable, lend themselves better than others to organisation into cartels. See P. de Rousiers, pp. 122–3, from whom we take the examples quoted in the text.

Page 93 (2). It is known that the Stahlwerksverband ended by distinguishing the products A (raw steel, half-worked products, material) from the products B (wire, sheet-steel, pipes, axles), and that these latter are considered less and less as "syndicated." Their production is controlled, but their sale is unrestricted. For these B products there is a special syndicate for Upper Silesia; while as regards the A products, the Silesian factories adhere to the great Verband. We find here again the opposition between "complex" (or combined) factories and "simple" (or pure) factories.

Page 94 (1). P. de Rousiers, pp. 134, 137–8.

Page 94 (2). P. de Rousiers.

Page 95 (1). Francis Walker, "The German Steel Syndicate" (*Quarterly Journal of Economics*, 1906).

Page 95 (2). The great shipping companies escape the fuel cartel because of the possibility of finding coal abroad. Moreover, the Norddeutscher Lloyd has acquired a coal mine, in the same way as Krupp, to ensure its independence.

Page 95 (3). There is at times concentration against the syndicate. The Mannesmann Röhrenwerke (Düsseldorf) became fused in April 1914 with the Blechwalzwerk Schulz Knaud A.-G. (Hückingen), because the syndicate refused them concessions in the price of pig-iron necessary for their manufacture. "Our only choice was to make ourselves independent as far as purchases of pig-iron were concerned."

Page 96 (1). And also that of the mine-factory. Whether a factory acquires a mine, or a mine a factory, the result is the same: the whole process of production finds itself submitted to the one single management. The complex factories have a great advantage over the simple factories because they have not to endure the prices of the syndicate, either for fuel and mineral or for semi-worked products. See Henry-Gréard, p. 90.

Page 96 (2). The history of those cartels which are formed, dissolved, and reformed should be followed in the *Bulletin* du Comité des Forges.

Page 96 (3). In the chemical industry there are about a hundred syndicated products. Certain factories are members of a score of different cartels at one and the same time.

Page 97 (1). Aftalion, "Les Cartels dans la Région du Nord de la France" (*Revue économique internat.*, Jan. 1908 and May 1911).

Page 97 (2). R. Leifmann, works quoted. A considerable time elapsed before it was realised abroad that the cartel was destined to become an instrument of exportation. As late as 1908, M. Vouters ("Les Procédés d'Exportation du Commerce allemand," p. 109), wrote with regard to cartels the following phrases which were then already singularly behind the reality: "The cartels *essentially look to the home market.* The majority export irregularly and only really preoccupy themselves with the external market to sell at any price, in times of crisis, when it is necessary to de-congest the national market." An error all the more strange, as the author quoted, after Bourguin, a significant passage of Morgenroth on export bonuses.

Page 97 (3). See Riesser, p. 146. The majority of syndicates were "children of necessity" (Kinder der Not).

Page 97 (4). Liefmann, "Die Unternehmerverbände," p. 140; Schuster, report of the Verein der Montan-Eisen und Maschinen Industriellen in Œsterreich (translated in the *Bulletin* du Comité des Forges, Jan. 3, 1913).

Page 98 (1). W. Morgenroth, "Die Exportpolitik der Kartelle," Leipzig, 1907: "Customs duties form around the cartel the sea-wall on which the flood of cheap foreign merchandise breaks itself." See Fr. Walker, article quoted.

Page 99 (1). Reflections very judiciously presented by Morgenroth, work quoted, and by H. Grandet, "Monographie d'un établissement métallurgique sis à la fois en France et en Allemagne," Chartres, 1909. On Feb. 27, 1902, the *Moniteur du Ministère du Commerce* showed that the home prices of metallurgy had been maintained although consumption had fallen. Equipped to produce much more than the local needs, the factories must deliver abroad at under cost price, with the alternative of closing down.

Page 100 (1). Brougham (quoted by Morgenroth) said in 1815: "It was worth while suffering a loss in the exportation of English merchandise in order to stifle foreign manufactures in their cradle." Smart, in 1904, calls the English Free Traders "the champion dumpers of the world."

Page 100 (2). Schwab, in the 1901 inquiry, expounds the "dumping" theory of exportation as a means of ensuring constant work for the national personnel and plant (see Mény, "Le Dumping," 1909).

Page 100 (3). Vouters, work quoted.

Page 101 (1). Riesser, p. 151. See also Morgenroth.

Page 102 (1). See this inquiry (published in extenso in the supplements of the *Reichsanzeiger*) summarised in the circulars of the French Syndical Chamber of Manufacturers and Constructors, Circulars 397, 421, 474; *Bulletin* du Comité des Forges 1912, p. 198; R. Liefmann, "Die Kontradiktorischen Verhandlungen über deutsche Kartelle." See also "Das Verhaltniss der Kartelle zum Staate mit Referaten von G. Schmoller und E. Kirdorf" (in *Verhandl. des Vereins für Socialpolitik*, Leipzig, 1906); Abstract of the proceedings of the German Commission on Cartels, 1903 (Memoranda . . . prepared in the Board of Trade, Second Series, 1904, p. 409 *et seq.*).

Page 102 (2). Steinberg, "Die Wirtschaftskrisis, 1901." The war against the cartels was especially waged with vigour by an organ of the Centrum, the *Kölnische Volkszeitung*. It had as protagonist, in the domain of science, Gothein, with whom Schmoller associated himself.

Page 103 (1). Chastin, "Les Trusts." The dumping of alcohol causes the eau de Cologne houses to lose part of the Indies market.

Page 104 (1). See on these facts Morgenroth, "Die Exportpolitik," and Mény, "Le Dumping," pp. 99–103. French merchants, at least the Parisian merchants, shared on this point the blindness of the English. Several of them told M. Mény that "dumping was excellent for them," because it permitted them actually to export to the dumping countries. One of them said, "It impoverishes the foreign exporting industry and permits us to increase our production; *we have only to leave it alone.*" See Fr. Walker, "The German Steel Syndicate," article quoted.

Page 104 (2). In the second half of 1900, the syndicate sold at home 22,000,000 kilogrammes at 25 marks the quintal, and abroad 19,000,000 at 14 marks. The syndicate makes a loss abroad of £42,950, but a home profit of £58,850. The operation thus balances itself with a positive result for the syndicate, but the consequences are deplorable for the German industries which are clients of the syndicate.

Page 104 (3). Harder things were said of the coke and pig-iron syndicates.

Page 105 (1). Moniteur officiel du Commerce, Feb. 27, 1902, report by a "chargé de mission" at Berlin; Chambre Syndicale des fabricants de matériel, . . . Circular 235; M. Aulagnon's report on French commerce in Russia, 1915. The great syndicates of raw material or products remit export bonuses or concede price reductions (negative bonuses) either to their own adherents, or to transformation syndicates, or even, exceptionally, to non-syndicated exporters. In 1905 the coal syndicate allowed 1.50 marks per ton of coal exported, 4.86 marks per ton of pig-iron, 15 marks per ton of semi-worked products, and 20 marks per ton of manufactured iron. See Mény, "Le Dumping," p. 112.

Page 105 (2). Abstract . . . quoted by the Board of Trade. The paper cartel declares that the export prices must be equal to the prices ruling in the importing countries.

Page 105 (3). Or "für Ausfuhrvergütung," for the subsidising of exportation.

Page 108 (1). This fact has not been very clearly seen by all the authors, even these who have written after 1903. We have already quoted M. Vouters. But even M. Mény, the author of one of the best studies on the question, still speaks of the harm which dumping causes to the export industries and of the services which it renders to the importing countries. That was true *before* the generalisation of export prices and bonuses; it was no longer true at the time when M. Mény wrote. What remained true, however, was this observation by M. Mény : the policy of the syndicates *harms* the industries which do not themselves form a syndicate (take, as an example, the manufacturers of petits fers of the district of Berg). Consequently dumping leads in fact to the obligatory syndicate for all export industries.

Page 108 (2). Ribes-Christofle, report on the commerce of the Argentine (*Bulletin* de la Chambre de Commerce de Paris, March 13, 1915).

Page 108 (3). American Chamber of Commerce, Paris, January 1914. From 1895 to 1913 the American sales of machine-tools in France varied around £200,000 a year; the German sales rose from £400,000 to more than £1,600,000. As to machinery, the American total increased from £200,000 to under £1,800,000 (falling off in 1913), while that of Germany rose from more than £600,000 to £5,600,000 !

Page 109 (1). Two to four marks a ton.

Page 109 (2). *Financial News*, Nov. 8, 1913, p. 295.

Page 109 (3). In *Il Sole* of Nov. 5, 1913, quoted by the *Bulletin* du Comité des Forges, 1913, p. 315. See also Broglio d'Ajano, article in *l'Industria*, translated in the *Bulletin*

de la Chambre de Commerce Français de Milan, April 5, 1913.

Page 110 (1). Pinot, *Rapport* au Conseil d'administration de la chambre syndicale des fabricants et constructeurs, June 12, 1911. The bad distribution of orders in France aggravates the disadvantage of our constructors. Before their official Commission it was shown "that the foreign prices opposed to them were abnormal prices; that, the German market being closed to the importation of foreign rolling stock, their competitors had full scope, assured as they were of the monopoly in the national market, to fix dumping prices for the French market." The president of the Commission, M. Colson, attached as he was to Free Trade ideas, "asserts that the sacrifices made by the foreigners appear to exceed the measure which is everywhere the rule in the matter of exportation." I owe a great deal, for these pages, not only to the *Bulletin* du Comité des Forges and to the circulars of the Syndical Chamber of Constructors, but to information which M. Pinot has been kind enough to give me in person.

Page 111 (1). All our industries, chemical, dye, pharmaceutical products, etc., have been affected by dumping. Every time that a factory raised its head in France, Germany lowered the price of the corresponding product.

Page 111 (2). *Il Sole*, article quoted. Millioud, pp. 87–90, and Gray, p. 148. Girders, the cost price of which is from 85 to 95 marks, are thrown on the Italian market at 75 marks. Wire is sold at 15 to 20 francs less than in Germany. The price of rails is systematically kept at 40 francs below that fixed for other countries. Wagon axles (Chambre de commerce français de Milan, Jan. 5, 1913) cost in Italy 40–41 lire per 100 kilogs, *port and customs duty* (13.25 *lire*) *included*, while the State of Prussia pays 37 to 48 marks for them.

Page 112 (1). R. Cruse, "L'évolution de la politique douanière de l'Allemagne contemporaine," Bordeaux, 1905; *Bulletin* de la Chambre de Commerce russo-français de Petrograd, March 1914; Max Hoschiller, article in the *Temps*, Feb. 24, 1915, and *Journal des Economistes*, April 1914; Millioud, work quoted, p. 94.

Page 112 (2). In 1911 the trade in Einfuhrscheine reached the sum of £6,150,000 on the Hamburg Bourse (M. Millioud, p. 94). The system was created after the Caprivi treaty of 1894, regarded as ruinous by the agrarians. The law of 1894 has been perfected by the administrative measures of the Bundesrat, and the treaty of 1905 followed to ensure the triumph of the agrarians. The Russo-French Chamber of Commerce states that the present system places Russia in "economic dependence" on Germany, "permitting the latter to close her doors completely to products of our raising and

constituting a protective system in her favour for the exportation from Russia of timber and practically raw products."

Page 114 (1). The expression is that of M. Aulagnon.

Page 114 (2). Arbel report: "The normal and regular play of commercial and customs treaties is distinctly falsified by these ingenious but intolerable combinations; and it should not be one of the least important preoccupations of the future peace treaty to remedy this."

Page 115 (1). Mény, p. 198, or more exactly Adam Shortt, "The Anti-Dumping Feature of the Canadian Tariff" (*Quarterly Journal of Economics*, 1906, p. 250), which Mény only summarises. A variation of 5 per cent. between the two prices is tolerated. The special duty shall never exceed half the regular duty. It does not exceed 15 per cent. of the value for pig-iron, steel ingots, girders, etc., articles ordinarily free of duty. In the event of insufficient native production, the authorities may exempt certain merchandise from the special duty.

Page 115 (2). The American tariff, by making the tax bear on the home price of the exporting country, indirectly hits dumping.

Page 115 (3). Mény, p. 218; Reisser, p. 153. The rails *entente* was even extended to America by the adhesion of the U.S. Steel Corporation. In 1907 there was created an international bottle syndicate (for the exploitation of the Owen patents, with headquarters at Berlin); total manufacture 1,428,500,000 bottles, of which 530,000,000 were for the German section, 305,000,000 for the English, 295,000,000 for the French, etc. Each adherent himself disposes of his production in the area assigned to him, but at prices fixed by the bureau. The Germano-Russian oil agreement against the Standard Trust may also be quoted. In 1909 a union was concluded between the zinc mines. The sugar convention of Brussels is the type of an international *entente* against dumping, but an *entente* between States and not between cartels.

Page 115 (4). For instance, there is no cartel, properly speaking, in the electro-technical industry. But (Buddens, "La concentration dans les industries électriques," *Revue économique internationale*, 1904, III. p. 168) in this industry, which "develops in violent bounds" without "constant harmony between the faculty of absorption on the part of consumers and the augmentation of production," the "imprudent and unlimited tension of production has given birth to the necessity for an *entente*." By reason of the variety of the innumerable classes of products, different in construction and value, by reason of the fact that the client is not in this case a transforming industry but the consumer himself, a cartel was not possible. But, in the form of a "community

of interests," a coalition was formed between the S.S.W. (Siemens-Schuckert Werke, result of the preliminary fusion of Schuckert and of Siemens and Halske), which represented £17,900,000 of capital, the A.E.G., Brown-Boveri and Felten und Guilleaume-Lahmeyer—a veritable secret cartel which absorbed three-quarters of the German high-tension industry, and the story of which has been told us by one of its victims (E. H. Geist, "Der Konkurrenzkampf in der Elektrotechnik und das Geheimkartell," Leipzig, 1911). During the war, at the end of August 1915, the A.E.G. exchanged 3000 of its shares for 4000 of the Berliner Elektrizitätswerke. In the same way, for chemical products, there is the *entente* concluded in 1904 between Lucius, Meister & Brünig and Léopold Cassella, another between the Badische and the A.G.F.A., and then in 1908 the *rapprochement* between the two groups by an agreement for the fixing of the price of indigo between Lucius and the Badische.

Page 115 (5). Diepenhorst himself says, article quoted: "It is thanks to export bonuses, *apparent or hidden*, that it was possible for members of a syndicate, notably in periods of depression, to pose as formidable competitors of the foreigner." When refusing the adhesion of Russia to the Brussels Convention, Count Witte made it clear that he would be disposed to treat "if one studied not only the results of direct Government measures, such as the establishment of bounties or the regularisation of production, but also the importance of the different syndicates tolerated or protected by the Government." In the case of sugar refining, cartel dumping took the place of State dumping.

Page 118 (1). Paul Léon, "Fleuves, canaux et chemins de fer," 1903.

Page 119 (1). Marlio, "La loi de 1905 sur les nouvelles voies navigables de l'Allemagne," 1907.

Page 120 (1). M. Arbel, report quoted, speaks of a railway bridge for the Danube which crossed the whole of Germany free of charge. See in M. Millioud, article quoted, p. 93, this typical example of the action of special rates. A double wagon of coal from Duisberg to Emden (260 km.) only costs 37 marks (fight against English coal). For the same distance in the interior, German coal pays 64 marks; English or Bohemian, 69 marks. From Duisberg to Hamburg the rates are respectively 57, 86 and 93 marks.

Page 121 (1). See the Arbel and Aulagnon reports.

Page 121 (2). M. Paul de Rousiers tells me he has never been able to obtain precise replies on this point. See Dollot, *Revue politique et parlementaire*, Nov. 10, 1904; Dussol, "Les grandes compagnies de navigation en Allemagne," 1909, and especially L. Hennebicq and Gerville-Réache.

Page 121 (3). Figures collected by Dussol for the Deutsche Levante Linie. The tariff is 4.36 marks from Breslau, 4.60 from Dantzig, and 3.31 from Bremen.

Page 122 (1). From Lübeck to Delagoa, 6.02 marks, less than the normal freight from Hamburg-Delagoa!

Page 122 (2). See in particular the works quoted of Paul Léon and Marlio. We naturally refrain from taking part in the theoretic controversy between railways and waterways. See especially in this respect the "Chroniques des Transports" of M. Colson in the *Revue politique et parlementaire*.

Page 122 (3). Ruhrort-Duisburg; more than 14,000,000 tons in 1903.

Page 122 (4). The tonnage of the Rhine (within the Empire) rose from 6,000,000 tons in 1880, at the moment of the adoption of the Maybach scheme, to nearly 30,000,000 tons (as much as the total river and canal tonnage in France) in 1900.

Page 124 (1). See L. Marlio, work quoted.

Page 125 (1). Work quoted, p. 197. Since 1884–6 Rhenish navigation has been menaced as to cotton, oil, timber, etc.

Page 125 (2). The other reason is that this canal favoured the Lorraine factories (even French Lorraine) and those in Luxemburg. Several factories on the Ruhr would benefit by removal, by going further from coal to be nearer to minerals. In March 1912 "the Government still considers that at the present moment the canalisation of the Sarre and the Moselle is not desirable."

Page 125 (3). But (Paul Léon, p. 203) the Prussian railways, just like our great companies, close the Westphalian market to the Rhenish ports by raising the junction tariffs.

Page 126 (1). Paul Léon, pp. 177–9. Except at Mannheim, the creation of the State of Baden, the rôle of the State is generally limited to the regularisation of the stream and to its relation with the railway. At Düsseldorf, a town which is the type of municipalisation (municipal gas, electricity, tramways, baths, etc.), "the management of the ports has only been one of the aspects of this municipal policy." The courage of the German conceptions is shown by the fact that as the sections of the river were regularised, the towns constructed basins. "They have not hesitated to make considerable outlays in order to arrest at their doors the commercial current of the Rhine." Ruhrort owes all to private initiative, to the industrial companies interested.

Page 126 (2). The *Journal de Genève* of Oct. 15, 1915, tells us that the war has in no way stopped the consideration of the "Rhone to Rhine" project. A conference on this subject was held at Neuchâtel on October 16. What has happened, however, to the French project, "Marseilles-Léman," complementary to rather than a rival of the former? Shall we arrive

too late, always and everywhere? The "Rhone to Rhine" plan completed by itself means Switzerland delivered up to German clutches. The "Rhone to Rhine" completed by the "Marseilles-Léman" means that Marseilles will become one of the principal Mediterranean gateways of Central Europe.

Page 127 (1). Biart d'Aunet, "Le recrutement du personnel des flottes de guerre et de commerce" (*Revue économique internat.*, 1913, II, p. 532).

Page 128 (1). See, on these conferences or rings, the *Revue économique internat.*, March 1911, p. 598.

Page 128 (2). Russel Smith, "Transports océaniques," *Revue économique internat.*, March 1911, p. 464.

Page 128 (3). *Ibid.* "A loss of traffic due to commercial unemployment in one region may be compensated by prosperity in another, so that vessels as well as traffic may be transferred from line to line, and that the fleet may be constantly employed."

Page 128 (4). "Les ports de commerce de l'Allemagne contemporaine," 1903 (and *Bulletin* Société des Amis de l'Université de Dijon, same date).

Page 128 (5). See H. Hauser, "Les relations maritimes entre la France et l'Algérie" (*Revue politique et parlementaire*, February 1913).

Page 129 (1). P. de Rousiers, "Hamburg," p. 218.

Page 129 (2). Report quoted. See P. de Rousiers (Société d'Encouragement, 1915, I, p. 39): the companies "have always been in advance of the needs of the population."

Page 129 (3). "Zur deutschen jüngsten Vergangenheit," II², p. 570.

Page 129 (4). G. Fermé, report to the French Chamber of Commerce, May 7, 1915; M. Rondet-Saint, "L'organisation des services maritimes français vers le Pacifique américain," 1915.

Page 130 (1). Commercial reports, Australia, 1914: "German importation benefits from the transport facilities supplied at very low freights by the steamers of great tonnage which ply year in year out between North European ports and Australia, and *vice versa*."

Page 130 (2). Example given by the *Annales Coloniales* of April 3, 1905. In 1907 a colonist in Indo-China made shipments of "rattan-cane" to Havre, but the high freight (60 francs per cubic metre, about 450 kilogrammes) stopped him. His fellow colonists shipped to Hong Kong or Shanghai, where German steamers (and also English or Japanese) took the packages of cane *as ballast* at a price of 15 to 17 francs *a ton*. That is why cane from Indo-China has been monopolised by German firms.

Page 131 (1). *Report* of Ribes-Christofle, and of de Rousiers (Société d'Encouragement, 1915, I, p. 39). See Niclausse, *Bulletin* du syndicat des mécaniciens . . ., April 1915.

Page 131 (2). Commercial reports, Brazil 1914: "These modern and luxurious vessels have monopolised a good share of the rich clientèle."

Page 132 (1). Ample information on this evolution will be found in the articles and chronicles which M. L. Hennebicq has multiplied during ten years in the *Revue économique internationale*.

Page 133 (1). Phrase of M. de Rousiers. Same ideas in his book on Hamburg.

Page 133 (2). *Frankfurter Zeitung*, May 5, 1914. Just as the principle of the concentration of ports has been favourable to Germany, so she has profited by the substitution of iron and steel for wood in naval construction and by the consequent concentration of shipyards (Neumann, *Revue économique internat.*, March 1911).

Page 134 (1). P. de Rousiers, "Hambourg," p. 211; H. Hauser, "Ports de commerce;" P. Masson, "Ports francs d'autrefois et d'aujourd'hui," 1904; G. Musset, "Les ports francs," 1904; G. Bossuet, "Ports francs et zones franches," 1904.

Page 135 (1). Summary of an interview with M. P. de Rousiers. Also "Réglementation du travail maritime" (*Revue économique internat.*, March 1911).

Page 136 (1). Biart d'Aunet, article quoted: They "are neither submitted to the exigencies nor gratified by the privileges which in France place them outside the common law."

Page 136 (2). Riesser, "Grossbanken," p. 121.

Page 137 (1). Dollot (*Revue politique et parlem.*, November 1904). Also Dussol, "Les grandes compagnies de Navigation en Allemagne," 1908, and Gerville-Réache, "Les Subventions et les Primes dans la marine Marchande," 1908. Fontana-Russo ("Progrès de la Marine Marchande," in the *Revue économique internat.*, May 1909) vaunts the independence of these companies with regard to the State.

Page 137 (2). Hennebicq, Chronique maritime of the *Revue économique internat.*, May 1909.

Page 137 (3). Dussol, and after him Gerville-Réache, are compelled to conclude: "The D.L.L. receives from the Government a veritable subsidy, but in a roundabout form."

Page 138 (1). See in Circular 161 of the Comité des Armateurs de France (1904) the translation of a letter from Lord Inverclyde, chairman of the Cunard Co., to the *Times*. M. P. de Rousiers has confirmed all this to me verbally. To escape the Prussian stations, Russian and Austro-Hungarian

emigrants who had non-German tickets took the most costly railway route which crossed the Saxon frontier at Bodenbach. But, at the request of the companies, the Saxon Government itself established control stations.

Page 138 (2). No passenger, except those for the Hamburg-American or North-German Lloyd lines, is allowed to cross Saxony unless he carries £20 for each adult member of his family, and £5 for each member under ten years of age.

Page 138 (3). See, as an annex to Lord Inverclyde's letter, the sworn deposition of Joseph Garozinski. The bearer of a steamer ticket paid for in advance and sent him by his brother-in-law in Pennsylvania, he took a railway ticket from Cracow to Bremen. At Ratibor an agent of the North-German Lloyd told him "in the presence of a policeman" that his Cunard ticket was no good, and, on his refusal to take another, sent him back to Cracow. There he took a ticket to Prague, and at Prague one for Leipzig. An agent of the company and a policeman sent him back again from Saxony on the way to Prague and Cracow and came to make sure that he was on the train. Then he succeeded in crossing the Silesian frontier by coach, arrived at Breslau by tramway, and there took a ticket direct for Bremen. But at the station at Berlin an agent of the North-German Lloyd and a *police inspector* conveyed him to the emigrants' hall. He protested and asked to be conducted to his consulate. After telephoning, the inspector finished by letting him go.

Page 139 (1). Fraissingea, "Le problème de la marine marchande," 1909: "The prosperity of the German service to New York depends to a great extent on the police measures by means of which the Imperial Government ensures it a clientèle of emigrants." See Paul de Rousiers (Société d'Encouragement, 1915, I, p. 40).

Page 139 (2). Hennebicq, chronicle quoted. The Hamburg-Amerika laid up 136,000 tons. No dividend in March 1909. The North-German Lloyd, in April, shows a loss of more than £675,000, notwithstanding economies and laying up numerous vessels. The receipts fall from £1,650,000 in 1907 to a little more than £450,000 in 1908.

Page 140 (1). See in particular M. Durkheim's complete and concise brochure, "L'Allemagne au-dessus de tout," 1915.

Page 142 (1). He said in the Reichstag, April 2, 1881: "I do not know why you imply to the Government a blind partiality in favour of industry."

Page 142 (2). H. Böttger, "Die Industrie und der Staat," Tubingen, 1910, p. 57: "It is to our industry that the German Empire to-day partly owes its birth, in any case its support. Because it is industry which before everything else has succeeded in feeding the annual growth of population." On

p. 85 he complains that industry does not yet occupy the place it should, and that the State fulfils its duties towards industry in a very insufficient manner.

Page 143 (1). Haller, *Rapport* . . . 1900, p. xxi.

Page 143 (2). Delloye (article quoted by the Société d'Encouragement, 1915, III, p. 441) : "The high fiscal charges which support our industry are even heavier in Germany." In certain towns of the Rhenish district, industrial revenues are burdened with taxes (State and communal) which absorb from 15 to 20 per cent. of the net revenue.

Page 143 (3). Böttger says : "The greatest employer in the world."

Page 144 (1) : *Bulletin* du Comité des Forges, 1912, p. 198.

Page 145 (1). Henry-Gréard, "L'exploitation des mines par l'Etat dans le royaume de Prusse," 1912. Chastin, "Les Trusts," in 1909, believed in a lasting fight between the State and the cartels.

Page 146 (1). *Bulletin d'informations*, Oct. 31, 1912.

Page 146 (2). Kirdorf states that this secession of the fiscal mines will be without influence on prices. "It is difficult, moreover, to deal with representatives of the State. As soon as it is a matter of an important decision, they must refer it to the Minister, who in turn lays it before the Landtag. It is difficult for a syndicate to do useful work with a contracting party which depends on a Parliamentary vote."

Page 146 (3). Henry-Gréard, work quoted, p. 110, *et seq.* ; P. de Rousiers, "Syndicats," p. 121 ; H. R. Tosdal, "The Kartell Movement in the German Potash Industry" (*Quart. Journ.*, November 1913).

P. 148 (1). Paul de Rousiers, "Syndicats," p. 109. This has all been confirmed to me by M. Pinot. See the Arbel report.

Page 148 (2). Müffelmann, *Revue écon. internat.*, April 1914. "It is probable that the economic development will compel the German Government gradually to transform certain private monopolies into State monopolies."

Page 148 (3). Prof. Flechtheim, "Zum Zwangsyndikatgesetz" (*Frankfurter Zeitung*, July 28, 1915).

Page 149 (1). Ashley, "The Economical Side of the European Conflagration" (*Scientia*, 1915, I).

Page 150 (1). See Bourdon, "l'Enigme Allemande."

Page 151 (1). See Reisser, p. 434. Feiler (already quoted above, p. 100) emphasises the loan of £500,000 made to Morocco by a German consortium and the opportune cession of half this interest to a French group ; also the £25,000,000 lent to Russia at the moment of the signing of the Commercial Treaty. We could add to these examples the Turkish and Bulgarian loans. In these operations it is nearly always a

matter of French money, placed by our compatriots in our credit establishments against a miserable yield, lent by these same establishments to German banks at a more remunerative return, and finally passed on by the latter to impecunious States at very high rates of interest, against orders for war material and political guarantees.

Page 151 (2). L. Coquet, "La révision du Tarif Douanier Français . . ." (*Revue écon. intern.*, April 1909); A. Mages, "Les Consequences de l'Article 11 du Traité de Francfort," 1911; A. Sayous, "La Réforme du régime Douanier des Etats de l'Europe Centrale" (Fédération des Industriels, Jan. 1914).

Page 152 (1). D. Bellet (*Revue des Sciences politiques*, Aug. 15, 1915): "Ten years ago the Nord, the P.-L.-M. and the Est railways fixed rates for exportation and for Franco-Swiss-Italian transit; the German consul-general at Paris applied by letter to the Transport Service Office to ask whether Germany could invoke Article 11." In sum, it is the policy we have seen in operation in the Gothard Convention.

Page 153 (1). P. de Rousiers, "Syndicats," p. 153. Aulagnon report—Memoranda quoted by the Board of Trade, p. 400. "In addition to unfinished products imported duty free to be finished in Germany and re-exported, attention must be drawn to the unfinished products *exported in order to be re-imported after their completion abroad* (raw silks, skin gloves, embroideries), and not subject to duty at the time of re-importation.

Page 154 (1). When the proportion of the blending exceeded 51 per cent. the wine was labelled "Burgunderwein, deutsche Traube" (burgundy, German grape).

Page 155 (1). French Chamber of Commerce at Milan, Feb. 1914. The French and Italian Customs require a declaration in accordance with the official classification; the German Customs itself undertakes the classification. In case of disagreement, immediate recourse to the director; if necessary, appeal to the general management; the superior council decides in a week or fortnight. If the importer does not accept the verdict, he can re-export. Fines only affect cases of palpable fraud, etc. See this report for details about re-exportation facilities.

Page 155 (2). Sayous, article quoted, remarks that there is a connecting link between the great industrialists (Centralverband der deutschen Industriellen) and the agrarians (Bund der Landwirte). On the contrary, the Bund der Industriellen and the Hansabund protest against the rise in prices due to protection.

Page 157 (1). See H. Hauser, "Colonies Allemandes, Impériales et Spontanées," 1900; Tonnelat, "L'Expansion Allemande hors d'Europe," 1908.

Page 158 (1). One need only run over the *Bulletins* de l'Alliance Française, the national association for the propagation of the French language in the colonies and abroad, to be able to compare the insufficient and irregular sacrifices made by the French State with the liberality of the German State at Madrid, in the East, in the Americas, etc. Our language requires all the natural prestige it enjoys to prevent it being stifled under this rain of gold.

Page 159 (1). Giraud, "Le Commerce Extérieur de la Russie."

Page 159 (2). Figures and details given by Andrillon in 1909. We revisited Antwerp less than a year before the war; one could not see Antwerp again without receiving the impression that the progress of Germanisation had been very rapid there. It had as an unwitting auxiliary the Flemish movement.

Page 159 (3). Naturalised aliens of ten years' domicile took part in the "élections consulaires."

Page 160 (1). Andrillon, work quoted.

Page 160 (2). A. Haller, "Rapport sur l'Exposition de 1900," p. xxiv. *Ibid.*, No. 2, he draws attention to the articles which appeared in the *Chemische Zeitung*, under the title "Stimmen aus dem Auslande," in which the Germans abroad inform the Germans at home of the conditions prevalent in the countries where they are, the business to be attempted, etc.

Page 160 (3). Zahn, *Revue écon. internat.*, Jan. 15, 1906.

Page 163 (1). Aulagnon, report quoted.

Page 163 (2). Arbel report.

Page 163 (3). And also with praiseworthy diligence. Ribes-Christofle (report to the Paris Chamber of Commerce). Notwithstanding their qualities, the French consuls "have not yet reached the point of taking the initiative so as to have their 'dossiers' ready and up to date to answer the demands."

Page 164 (1). "Fédération des Industriels," March 1914. These attachés are at Petrograd, in America (5), at Johannesburg, in Asia (5), at Sydney.

Page 164 (2). Vallier, "Banques d'exportation," p. 129 *et seq.* See R. G., "Le Commerce d'exportation Allemand" (*Bulletin*, French Chamber of Commerce at Geneva, 1915, Nos. 4, 5, 6).

Page 165 (1). And after him, Ezio-M. Gray, p. 130. Our consul at Oporto: "The exporters beyond the Rhine require from certain financing establishments which are charged with the collection of their moneys a list of their competitors and of the clientèle of the latter, the figures of the business handled and the credits granted, etc." In order to favour the leading houses, the banks "stoop to the betrayal of their other correspondents."

Page 166 (1). Interview with M. Timiriazeff in the *Standard;* translation in *Das Echo,* July 29 last.

Page 166 (2). This, moreover, is the procedure employed by the German editors to keep their scientific year-books up to date. As to manufacturers, Ezio-M. Gray states that they were asked to supply, besides information to be contained in the year-book, "secret information" concerning their fellow-manufacturers—a means of "having the French spied on and betrayed by their compatriots."

Page 166 (3). Chambre de Commerce Russo-Française, March 1914.

Page 166 (4). At the constitutive assembly (a conference of this kind in war-time!) of the Deutscher Wirtschaftsverband für Süd-und Mittel-Amerika (*Frankfurter Zeitung,* Sept. 5, 1915). The whole account should be read.

Page 167 (1). All the quotations which follow come from the most recent consular reports, except that on Serbia, which is from an article by M. R. Lauret in the *Revue politique et parlementaire,* Aug. 10, 1915.

Page 168 (1). The Arbel report explains how the Germans have adapted themselves to the usages of the Nijni-Novgorod fairs, where it was customary to pay at the following fair (at nine months)—a consequence of the realisation of the crop. See in the *Bulletin,* French Chamber of Commerce at Milan (Nov. 1914), the very instructive description of the conditions offered in France and in Germany, during the war, for similar products.

Page 168 (2). Commercial reports, Denmark, 1913. Our German competitors "derive great advantage in capturing business by consenting to long credit," notably in motor-cars.

Page 168 (3). Attention has already been called to the difficulty which the exchange fluctuations present for this fixing of prices in local currency. The Germans have solved this difficulty.

Page 169 (1). *Bulletin,* first half 1912. Here can be measured the importance of the service which combined rates render to German industry.

Page 169 (2). The same observation has been made to me by M. Knoblauch as regards Spain.

Page 170 (1). Oft-quoted report of M. Lefeuvre-Méaulle.

Page 170 (2). Paris Chamber of Commerce, April 27, 1915.

Page 172 (1). *Report* Ribes-Christofle. In order not to multiply references, I will say that I have composed these pages from consular reports, reports from chambers of commerce, and some personal conversations.

Page 172 (2). Wagner, Conference of the Société de Géographie, June 11, 1915, "on the methods of expansion of German commerce in South America."

Page 172 (3). American Chamber of Paris, Jan. 1914. American machine tools are offered in Paris by German agents "who in many cases are handling similar articles of German manufacture."

Page 172 (4). French Chamber of Commerce, Charleroi, Feb. 20, 1914. This practice was combined with that other system of either having German employees in a French house or corrupting French employees in order to obtain patterns before the day of their issue. When that day came, the German firm had already manufactured, standardised, at cheap prices, an imitation of the French creation.

Page 174 (1). Our consul at New Orleans writes to me, July 1915: "A French restaurant of this town wanted a table service with tricolour lines. A German traveller was able to obtain it for the establishment at a low price. I am sure that a French traveller would not have had the necessary adaptability to take an order of this kind and to get it executed."

Page 174 (2). The authenticated story is known of the diplomatic protest lodged on account of mustard-pots in the form of pigs' heads adorned with Prussian helmets. Inquiries made showed that the mustard-pots came from Germany! Irritated by the insistence of a traveller, a Dijon manufacturer had thrown out this strange order to him, and the Teuton had booked it at once!

Page 174 (3). Preziosi, "La Banca Commerciale," p. 56, gives the details of the Japanese procedure. But how much of unexplained mystery there is in the Krupp proceedings in Belgium and elsewhere! Gray, p. 147, discloses another method of commercial espionage: two German workmen work with much skill for six months in a Florentine manufactory of blacksmiths' and carpenters' tools. Six months later Germany floods the Italian market with similar implements at very low prices. The two model workers were engineers.

Page 175 (1). A Parisian editor explains to me the shortage of coloured paper. The German factory established at Lyons was supplying colours to our paper mills on its own terms, and had thus killed French competition.

Page 175 (2). Example taken on the eve of war: a Dijon distiller ordered from a local stationer pencils with a metal advertising mount. The stationer applied to one of the largest and oldest-established French firms, who replied, "We make pencils, and nothing else." The German house, which was, moreover, established in France, said, "It is true that we only make pencils, but if you will kindly treat with X. & Co. we are sure you will obtain satisfaction." Result; the stationer took the distiller's order for £800.

Page 175 (3). Paris Chamber of Commerce, April 17, 1915.

Page 176 (1). See the study of these firms in Youteres, "Les procédés d'exportation du commerce Allemand."

Page 177 (1). Alphaud, the *Temps*, June 1, 1915. The firm incriminated made the defence that it was a purely German house.

Page 177 (2). The laziness of our exporters, the zeal with which the German agents know how to apply themselves to questions of Customs, exchange, grouping, and shipment are the essential causes of this state of affairs.

Page 177 (3). Giraud, "Commerce extérieur de la Russie." The disparity between the French and Russian figures (Russian imports into France £18,440,000; Russian exports to France, £11,520,000; French exports to Russia, £3,400,000; French imports into Russia, £5,920,000) is largely explained by the rôle of German intermediaries, by the transhipments in Germany and also in Holland and Belgium. See also Year-book of the French Chamber of Commerce at Petrograd, 1913: "It is indisputable that the French shipments are more considerable than is shown by the figures."

Page 177 (4). See the two documents quoted in the previous note.

Page 178 (1). Giraud, work quoted. "Re-marking the products (of French or Russian merchants), confusing the one with the other. . . . Always there, on the watch, ready to appropriate the greater part of the profits."

Page 178 (2). Here is a curious example, described in Feb. 1915 by our Chamber at Petrograd: the Germans are said to have installed an electric globe factory in a Scandinavian country; they pass them into Russia by effacing the German mark and sell them at the pre-war price.

Page 178 (3). We have already given the example of Burgundy wines. The American Chamber of Commerce says: "The German constructor has not hesitated to announce his machines as a copy of the latest American model. Who has not seen in the Friedrichstrasse of Berlin, or the Zeil of Frankfurt, these blustering advertisements: 'Echte Pariser Neuheit!'—real Paris novelty—on products of German manufacture?"

Page 178 (4). Statement of the American Chamber. The practice of the Patent-Amt requires the subdivision of the American patent into a dozen or more distinct applications. This is "an effective barrier against the systematic patenting of all improvements of a progressive manufacturer."

Page 178 (5). Madagascar is, with Ceylon, one of the principal producers of graphite for electric furnaces. Germany is the chief purchaser of this commodity, and then sells the crucibles to France (the *Temps*, May 27, 1915).

Page 178 (6). At least, if we are to believe the dithyrambics of the *Lokalanzeiger*. There were supposed to have been 20,000 buyers or exhibitors; buyers from Holland, Switzerland, Scandinavia, and the Balkans. It is believed that Copenhagen bought for English and Russian account. Goods were purchased in anticipation of peace, and it was considered (in September!) that the critical point had been henceforth passed.

Page 178 (7). "The exhibitors and buyers were led to Leipzig less by the commercial interest than by the need to show the world that in the midst of the world-war the spirit of economic enterprise was maintained in Germany." It has since been confirmed that the fares of the exhibitors and of many of the buyers, notably in the case of Belgian houses, were paid for them. German bluff again.

Page 178 (8). Verband der Messkauf Häuser. The Germans are very anxious about the projected fairs at London and Lyons.

Page 179 (1). Giraud, work quoted.

Page 179 (2). Commercial reports, Roumania, 1914.

Page 179 (3). *Ibid.*, Brazil, 1914. See Clerget, "La Technique de l'Exportation."

Page 179 (4). According to the *Frankfurter Zeitung* (Millioud, work quoted, p. 86). See G. Gaillard, "Culture et Kultur," 1915, p. 161 *et seq.*

Page 181 (1). French Chamber of Commerce, Smyrna, Dec. 31, 1913: "The German competitors, intelligent appreciators of profitable matters, have created during latter years a weapon of information and propaganda which obtains the greatest success. The *Deutsche Levante Zeitung*, which interests at once manufacturer, exporter, commercial representative, and consumer, penetrates everywhere, and by means of an ingenious system of advertisement and documentation renders inestimable services to German industry."

Page 181 (2). Giraud, work quoted: two or three houses for pharmaceutical products flood the Russian market, "as they know the needs of the market and possess a special scientific literature."

Page 181 (3). The Swiss (*Neue Zürcher Zeitung*, Aug. 6, 1915) are alarmed at the collective propaganda of the German wholesale watchmakers and jewellers. The publishing house of the *Deutsche Goldschmiede Zeitung* and the *Uhrmacher Woche* sends free of charge to those interested a Spanish edition, *Joyeria y Reloseria por mayor*.

Page 182 (1). Dispatches from H.M. Ambassador at Berlin respecting an official German organisation for influencing the Press of other countries.

Page 182 (2). Ballin had at first thought of a Weltverein

in which would be merged the Germano-Argentine, Germano-Canadian, and Germano-Russian, etc., societies. He renounced it in favour of "this more delicate and more or less secret organisation." The secret was clumsily spread abroad by an article in the *Deutsche Export Revue* of June 5, 1914. This article was held to be imprudent, and the German Press was forbidden to allude to it.

Page 183 (1). Disconto, Deutsche Bank, N. D. Lloyd, Hamburg-A., Bayer, Siemens-Schuckert, Maschinenfabrik (Duisburg), Deutsche Waffen-und Munitionsfabrik, etc.

Page 183 (2). Reduced rates for week-end telegrams.

Page 183 (3). Giraud, work quoted.

Page 184 (1). Vouters, work quoted, p. 120.

Page 184 (2). Segre, "Storia del commercio," II, p. 200.

Page 184 (3). "Keine Kirche ohne Popen, keine Fabrik ohne Knoopen."

Page 184 (4). "Le Danger Allemand," p. 180.

Page 185 (1). 1914. Articles which first appeared in the *Grande Revue*. See also A. Staehling, *Bulletin* du Comité Michelet, No. 3, Dec. 1914. As to Italy, long before Preziosi's resounding brochures, Lamprecht had naïvely exposed this plan of economic conquest, connected with the establishment of the Gothard line (II, p. 562). See R.-G. Lévy, "L'Italie économique" (*Revue des Deux Mondes*, July 15, 1915).

Page 186 (1). Ballin (*Lokalanzeiger*, April 14, 1914), a little before the war, reproached German capital with being too lazy to export itself, and accused Germany of reserving exclusively for her industries the annual growth of the national wealth. He praised in this respect the financial policy of France and England, its numerous placings of loans abroad serving the foreign policy. This eulogy is all the more surprising as it comes from the pen of an enemy. Was this a part of the programme of the financial preparation for the war?

Page 187 (1). Abel Chevalley, consular report quoted in Clerget, "Technique de l'Exportation," p. 403. The result was that German imports in the Transvaal amounted to £1,600,000, while the French were only £240,000.

Page 187 (2). Buffet, "La Lorraine économique" (Société d'Encouragment, 1915, IV, p. 95).

Page 188 (1). March 1, 1915. The Banque pour Enterprises électriques has on its council fifteen Germans and nine Swiss, and on its executive committee five Germans and two Swiss. The Société des Valeurs de Metaux, Basle, ten Germans and five Swiss.

Page 188 (2). See especially the works quoted by Gray and Preziosi.

Page 189 (1). The Deutsche Waffen-und Munitionsfabrik had, according to M. Preziosi, a controlling part in French firms, and used its influence in the Parisian Press to stimulate the Franco-German competition in armaments. A case, at once famous and mysterious, which was heard a little before the war, seems to indicate that this German company also used its influence to " bungle " our gunpowder.

Page 189 (2). See the fragments of this study in Italian works.

Page 189 (3). Besides Preziosi, see Mario Alberti, " I piu recenti aspetti del capitalismo moderno " (*Rivista delle Società Commerciali*, 1914, II, 2), and especially Maffeo Pantaleoni, " Un modello nazionalista la Società Siemens-Schuckert " (*Vita italiana*, Aug. 15, 1915), a very complete and documented abstract of all the branches and allied companies.

Page 189 (4). Stachling, article quoted. And the *Phare de la Loire*, Nov. 6, 1915.

Page 190 (1). The two others are : Siemens Electrische Betriebe (S. E. B.) and Siemens-Schuckert Werke (S. S. W.).

Page 190 (2). Madrid, Barcelona, and four other towns. Commercial reports, Spain, Barcelona, 1913. The S. S. has bought back the Industria electrica and established a factory for motors and apparatus.

Page 190 (3). S. S. W. für die La Plata Staaten Electrizitätsgesellschaft, etc. We also find the S. S. W. at Hankow, Johannesburg, Capetown, Sydney, Constantinople, Tokio, Oporto, Valparaiso, and Christiania. The S. u. H. has the Russische Electrotechnische Werke (thirteen Russian towns), a branch in Holland, a company for railway safety appliances at Brussels, a S. u. H. A. G. Planta electricita at Mérida (Yucatan). Add the Schuckert u. Co. Russische Gesellschaft at Petrograd, Moscow, Riga, and Tiflis ; Siemens Bros. & Co. in London ; Siemens Brothers Dynamo Works, Ltd., in several English towns and in Melbourne, Sydney, Bombay, Calcutta, and Madras.

Page 190 (4). At Buenos Ayres and Santiago, a Cia. Alemana Transatlantica de Electricidad.

Page 190 (5). Wahl, article quoted by the Société d'Encouragement.

Page 191 (1). Andrillon shows the Germans implanted in the *Sambre-et-Moselle* steel works, the *Nouvelle Montagne* zinc mines, in electrical and food-stuff factories, in the *National* Small Arms Factory at Herstal (Loewe of Berlin). This in 1909. M. Rau, in confirming to me what is said here about Herstal, mentions the chemical products factory of Drogenbosch.

Page 191 (2). M. Bougault, administrator delegated by

the Société des Hauts fourneaux et Aciéries de Caen (Société d'Encouragement, 1915, IV, p. 176). This very precise note supplements Jean de Maulde, "Les mines de fer . . . dans le département du Calvados," Caen, 1910 (who had only a foreboding of the danger), and G. Weill, "Le fer en Normandie" (*Revue écon. internat.*, April 1914).

Page 192 (1). At a price reserving to the mines a gross profit of 20 per cent., the company retaining complete liberty in the purchase of coal.

Page 192 (2). At terms at least equal to previous conditions. Thyssen binds himself to exercise his good offices and provide his agents for the purchase of coal in Germany and in England, at the will of the company, to combine the transport by sea of the mineral and coal, with equal division of the saving in freight. These conditions were annulled by the decree of Dec. 27, 1914, and the two companies (Hauts Fourneaux and Soumont) put an end to the mandate of the German administrators on June 29.

Page 193 (1). Vouters, work quoted, p. 121.

Page 193 (2). M. Pantaleoni and G. Preziosi give an excellent example (Magyar, it is true, and not Germanic) of this method of conquest, in "La Società italiana 'Westinghouse'" (*Vita italiana*, Sept. 15, 1915, p. 220). Constituted in 1907 with French and American capital, the Italian company has a Hungarian staff manager. The Italian technical men have been set aside, and only Italian semi-skilled labour has been taken on. An Italian engineer who tried in 1912 to nationalise the technical staff was dismissed. After the declaration of war it required a campaign in the journals of Savona to obtain the departure of a whole batch of Hungarian engineers who had been retained as indispensable. They included a naval officer related to Count Tisza, several brothers (at one time four brothers together) of Hungarian departmental chiefs, etc. All this staff is at the moment in Sardinia. I am less convinced by M. Preziosi's statement on the subject of Vickers-Terni.

Page 193 (3). V. Cambon, "L'Allemagne au travail," pp. 49–51. A certain French house which has adopted a process for de-tinning used preserve-tins "pays yearly to the inventor a handsome number of 1000-franc notes, without taking into account that the installation in France made a profit for the German constructors who established it." Already in Vouters, p. 120.

Page 194 (1). Fourneau, article quoted in Société d'Encouragement, p. 454.

Page 194 (2). Gray, work quoted, p. 162.

Page 195 (1). *Temps*, June 9, 1915.

Page 202 (1). Lévy-Bruhl, article quoted: "The extra-

ordinary rise of German industry constituted, for its neighbours and for the world, rather a danger of war than a guarantee of peace. There is no longer anything paradoxical in this. . . ."

Page 204 (1). Stresemann writes in 1913: "The greater part of the problems of the moment, alliances of nations and international events, are found to have their final factor in the Anglo-German competition."

Page 204 (2). "Deutschlands Stellung in Weltwirtschaft" (Teubner). Thus also, in more scientific form, Arthur Dix, "Politische Wirtschaftsgeographie," 1910.

Page 205 (1). According to the *Temps* of Feb. 23.

Page 205 (2). Quoted by Waxweiler, "La Belgique Neutre et Loyale," p. 115.

Page 206 (1). See H. Hauser, "La Guerre Européenne et le Problème Colonial," 1915 (Chapelot).

Page 206 (2). Friedrich Naumann, "Deutschland und Frankreich," 1915. H. Hauser, "Comment un Allemand jugeait la France" (*Revue du Mois*, May 1915).

Page 206 (3). "Vers l'expansion industrielle" (*La Lumière Electrique*, July 31, 1915).

Page 207 (1). Louis Guilaine, "Français et Allemands dans l'Amérique du Sud" (the *Temps*, Nov. 3, 1915).

Page 207 (2). X., "Lettres d'Allemagne" (the *Temps*, Oct. 24, 1915).

Page 209 (1). This is the opinion of M. Cambon.

Page 210 (1). We have already quoted the Société d'Encouragement à l'Industrie Nationale. See also the *Génie Civil* and certain special reviews, such as *La Lumière Electrique*. Let us point out also l'Association Nationale d'Expansion économique: industry, commerce, agriculture (see the *Temps* of Sept. 20 and Nov. 4).

Page 211 (1). See this very interesting controversy, following M. V. Cambon's lecture, in *La Lumière Electrique* of Sept. 11.

Page 213 (1). David-Mennet, "De la méthode à suivre pour substituer les produits français aux produits allemands et austro-hongrois."

Page 214 (1). G.-M. Baldwin, "L'idéal américain et l'idéal français" (in *Les Etats-Unis et la France*, 1914, p. 160, *et seq.*).

Page 215 (1). G. Violle, "L'Avenir de nos Industries Physiques après la Guerre" (*La Lumière Electrique*, Oct. 16, 1915).

Page 215 (2). Pingaud, *Moniteur du Commerce*, July 7, 1898, p. 11.

Page 216 (1). *Report*, 1900, p. xxv.

Page 217 (1). G. Violle, work quoted. See Vogt, "Re-

marques sur la Formation des Ingénieurs et des Techniciens" (*La Lumière Electrique*, Oct. 9, 1915).

Page 219 (1). M. V. Cambon's lecture.

Page 222 (1). I am happy, in concluding this work, to find myself in agreement on practically every point with M. Landry, "Rapport (à la Chambre des Députés) . . . sur notre commerce d'exportation," 1915.

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