

In 1848 there was a royal decree, authorizing the Secretary of the Treasury to exempt from the *derecho de puertax* the raw materials used in the various manufactures of the country, and this without regard to their being of foreign or domestic origin. The measure was, no doubt, an extremely wise one, and has contributed its share towards the improvement which the manufacturing industry of Spain has, of late years, obviously undergone. By the law of *presupuestos*, in 1850, the authority was extended to such other articles as might seem to require a similar exemption, — provided always that the revenue from gate-money should not be, thereby, too seriously impaired. The latter clause was quite unnecessary, as it is not in the nature of finance ministers anywhere, and least of all in Spain, to cut down any available means of revenue, where they are allowed to exercise a discretion. Sr. Bravo Murillo, in April, 1850, published a list of about one hundred and seventy additional articles to which the freedom of the gates was given. They were principally drugs, medicinal plants, and vegetable and mineral substances, employed in the various mechanic arts. Their exemption seemed but a trifle, until I reflected upon the incalculable annoyance and injustice which the levying of taxes on them must previously have wrought. There were several commodities, among them, which struck me as somewhat singular: such, for example, as live vipers; dried do.; sand for scouring; human hair; do. manufactured; Cantharides; Canary birds; leeches, &c., &c. Even if the snakes, the birds, or the flies had not been permitted to enter the cities scot-free, without legislation, a fellow-feeling ought to have suf-

ficed, of itself, to save the leeches, at all events, from the rude hands of the tax-gatherer.

A chapter on the finances of Spain would hardly seem complete, without some allusion to the national debt, but as this, unfortunately, is somewhat over nine hundred millions, and is not much nearer being paid than it was when contracted, it has no very practical connection with the financial interests of the day. If such things be national blessings, as is sometimes contended, the cup of the national beatitude ought certainly to be full. Every now and then some "agent of the bondholders" is said to visit Madrid, with a view to an arrangement for the punctual payment of interest. But this announcement has been made so often, and the "arrangement" is still so far from its consummation, that the "agent" is now generally regarded as a newspaper fiction, and the debt answers but little purpose, save as a shuttlecock for the players at the Stock Exchange. Rumor occasionally alludes to large fortunes, supposed to have been made from speculations in it, by persons high in authority, who are able to foretell, if not to cause, the fluctuations of its market value. There is, no doubt, truth in these reports; for Lord Bacon has wisely said, that "want supplieth itself of what is next, and many times the next way." It may be private uncharitableness to believe ill of our neighbors, but it sometimes is public wisdom not to be incredulous in regard to the sins of our rulers. The reader who is disposed to be amiable may see some prospect of the debt's being extinguished in the fact that \$ 160,602 were applied in July, 1852, to the redemption of preferred securities!

XXVI.

INTERNAL IMPROVEMENTS. — AGRICULTURAL AND MINERAL WEALTH. — NATURAL OBSTACLES. — PRESENT FACILITIES FOR TRAVEL AND TRANSPORTATION. — SAFETY OF THE ROADS. — POLICE. — NEW ROADS AND CANALS. — ADMINISTRATION OF ROADS AND CANALS. — RAILROADS PROJECTED AND COMPLETED. — RAILROAD COMMITTEE OF THE CORTES. — ROYAL DECREE AND PARTICIPATION OF THE GOVERNMENT IN THE MANAGEMENT OF RAILROADS. — INFLUX OF CAPITAL, AND ITS RESULTS.

If there be any one subject of greater interest, at this moment, to Spain, than all others, it is a comprehensive and thorough system of internal improvements. It is a matter vital to her prosperity in all points of view, — not merely with reference to the development of her material resources, but to the diffusion of liberal and enlightened opinions, and the spread of civilization among her people. During the Carlist war, it was notorious that the Pretender had no strength — almost no party — in the cities and large towns, and wherever intelligence was diffused. His strongholds were in the fastnesses of the hills, the almost inaccessible valleys, and wherever the isolation of the people from the rest

of the world was most complete. I do not, of course, speak, in this connection, of the footing which Don Carlos maintained in the Basque Provinces. His popularity there was altogether independent of any attachment to his person, or to the despotic and retrograde principles of which he was the representative. He was identified by the intelligent and sturdy inhabitants with their *fueros*, or prescriptive privileges, and it was for these, and not for him or his cause, as is commonly supposed, that their unyielding struggle was kept up. But, elsewhere, the devotion of the rural districts to the Pretender was universally proportioned, in its intensity and its extent, to the degree of their remoteness from the sources of information, and the difficulty of their intercourse with the other portions of the kingdom. And so it must always be. New ideas cannot enter rapidly, or be accepted with intelligent welcome, where the people who are to carry or receive them have only access to each other, and to the living stream of human thought and movement, by mule-paths over rugged mountains. It is not to be expected that men can get rid of their swaddling-clothes, while they are compelled to lie in the cradles in which they were rocked. I think it is Sidney Smith who says that "the wisdom of our ancestors is the usual topic, whenever the folly of their descendants is to be defended"; but how are men to get beyond the follies of their progenitors, if they have no opportunity to acquire wisdom of their own? When the oracle foretold to Philip that he might cleave the wall with his wedge of gold, it presupposed some crevice, through which the work might be begun.

To see what might be done for the material wealth



of Spain, by a judicious system of internal improvements, it is only necessary to look for a moment at her geographical position and resources. Though not abounding in ports of the first class, she has still enough to furnish outlets for all the possible productions of her soil and industry. "Her agricultural products," says Loudon,* "include all those of the rest of Europe and most of those of the West Indies: besides all the grains; for the production of which some provinces are more celebrated than others, and most of them are known to produce the best wheat in Europe." Her soil and climate are as various, and the face of the country is as diversified, as so unlimited a range of products could require. Mountain and valley, plain and *vega*, vineyard, cornfield, pasture, and sheepwalk, — all contribute their shares to the bounty of her agriculture. Nor are the treasures beneath the soil less varied and abundant than those which spring from it. Copper and lead are found in large quantities, and in the most valuable combinations. The quicksilver mine of Almaden is inexhaustible. Zinc abounds in La Mancha and the Asturias. Black-lead of the first quality is to be had abundantly through Andalusia. Alum, saltpetre, and salt are the riches of various districts. Iron of the best quality, and in inexhaustible deposits, is to be found throughout the whole kingdom, especially in the northern and more industrious provinces, and at Marbella on the Mediterranean, not far from Malaga, where there is a mountain almost entirely composed of it. Of the coal mines of the Asturias, Wid-

* Encyclopædia of Agriculture, Sec. 721.

drington says that "the quantity is inexhaustible, the quality excellent, the working of extraordinary facility, and the communication easy with the sea." Near Villanueva del Rio, by the Guadalquivir, there is also an extensive deposit of coal, which is used for steam-navigation on that river; but it is, like the most of the mines which have been referred to, only imperfectly worked. Baron Liebig,* speaking of the extensive formation of phosphate of lime, which was explored, in Estremadura, by Dr. Daubeny of Oxford, observes: "This is one of the treasures, of which Spain has so many, sufficient, perhaps, at no distant period, to pay a part of the national debt of that country." "It is deeply to be regretted," he adds, "that the railways projected seven years ago, which, crossing each other at Madrid as a centre, were to unite Portugal with France, and Madrid with both seas, have not been executed. These railways would render Spain the richest country in Europe."

With these and similar inducements to create all possible channels for internal intercourse, nature has undoubtedly mingled an infinitude of obstacles, which in some degree excuse the paucity and imperfection of the facilities which at present exist. It would be difficult to devise a more unfavorable topographical arrangement for the construction of improvements of all sorts. The immense central plateau of the Castiles is more than two thousand feet above the level of the sea, towards which the descent, in many places, is sudden and precipitous, — obstructed often, in the most important quar-

* Letters on Chemistry, p. 498, note.

ters, by mountains of painful declivity and ruggedness. The chief mountain ranges which cross the Peninsula do so transversely, and in such a manner as to present as many lines of impediment as possible, in the directions which the most valuable works must take. The rivers, in their upper portions, run mostly in narrow channels, between high and rocky banks, difficult of access, often, in an extreme degree, for the purposes of canal construction. The long droughts in many districts, and the paucity of streams where most desirable, present other difficulties in this regard, which are almost insuperable. In the presence of natural obstacles so numerous and real, it is not difficult to understand how a nation, sparsely peopled, vexed by invasions and civil discord, — with an exhausted treasury, an impoverished agriculture, and broken industry, — should have shrunk from encountering what, under the most favorable auspices, must be a gigantic labor, and involve an enormous expenditure.

Bad, however, as the means of communication and transportation undoubtedly are, in many parts of Spain, the common ideas of other countries in regard thereto are very much exaggerated. It is gravely stated, in many respectable books of reference, and believed, with a shudder, by travellers, who would otherwise enjoy the pleasure and profit of visiting the Peninsula, that a tourist can scarcely see any thing except from his saddle, and that mules and donkeys are almost exclusively the common carriers. There is no foundation whatever for such notions. Through the most important parts of the kingdom, and especially between the principal cities, there is every facility which good

carriage-roads and excellent diligences, constantly running, can furnish to travellers; and the *galeras*, or wagon-lines, for the transportation of merchandise, are numerous, — often very well conducted and reasonably prompt, the mountainous nature of the principal routes being taken into consideration. Those persons who desire to explore the country, — to penetrate its romantic recesses and enjoy the wildness of its most secluded scenery, — will undoubtedly be compelled to do so on horseback, and trust their valuables to the next mule-driver. But in such cases the adventurousness of the journey would seem to be an attraction, rather than an inconvenience; and one can hardly expect the appliances of civilization, when expressly seeking the beauties of primitive, uncultivated nature.

It may be well to say in this place, that the dangers of Spanish travel have been quite as much the subject of hyperbole as its difficulties, — perhaps, indeed, more. Since the civil war ended, the improved security and profit of peaceful labor, and the consolidation, in a more permanent and effective form, of the elements of real government, have so removed the temptations to lawlessness and increased the probability of its punishment, that robberies and murders upon the highway have become of comparatively infrequent occurrence. The new road-police — the *guardias civiles* — are an excellent and effective corps, and by their numbers, activity, and energy have become a great terror to evil-doers. They are to be met in all directions, traversing the country on horseback and on foot, well armed and accoutred. The justice to which they bring the criminals whom they arrest is so decided and summary, as

to have diffused already, when I was in Spain, that salutary dread of the vigorous and active administration of the laws, which is the most effectual preventive of crime, and especially of open violence.

So far as the construction of carriage-roads is concerned, but little could be added to the energy and industry with which the system of improvements has been prosecuted, since the final establishment of peace. There is a Board of Engineers of Roads, — originally organized towards the close of the last century, which, after having been suppressed, during the war of independence and the despotical reaction of 1823, was placed upon a secure and permanent footing, in 1836, when a school for the education of its future members was established. The construction and improvement of the chief national and provincial highways is under the charge of this corps, while that of the minor (or, as we might call them, country or township) roads is intrusted to certain "Directors of By-roads and Canals for Irrigation," who were created a board, by royal decree, in 1848. The funds for the construction of the last-mentioned works are raised by the proper provincial and municipal authorities, in a manner provided by law. Those which are of a national character are dependent upon the Treasury. The amount designated for their support, in the budget of 1850, was \$ 1,452,360, over and above \$ 84,657, appropriated to the pay of the engineer board and the support of its school. Some members of the opposition contended that a very undue proportion of the amount applicable to the construction of highways was absorbed in the *personal* of the service, — that is to say, the perquisites, ex-

penses, and it may be the pickings and stealings of the various officials concerned in it. Doubtless there was truth in the charge, — for it was made openly and responsibly ; but it was equally true, that the roads in progress of construction were advancing with much rapidity, to the obvious and almost incalculable advantage of some of the most important districts. In many places also, they were reducing the grades of the old roads, with great benefit to their practicability for heavy transportation. If, however, on the whole, the new highways shall be constructed with the masterly skill in the engineering department, and the solidity of the bridges and masonry, which are conspicuous in the older works, a small extra appropriation to the *personal* may be regarded as a pardonable sin.

In the matter of railroads and canals, there is less to be said for the actual improvement of Spain, although projects without number, and especially of railroads, have been for some time occupying public attention.

“Six are the canals for navigation which we have,” says Mellado, in 1849, “but none of them finished, — in accordance with that sort of fatality which has always persecuted Spain, and in virtue of which every thing useful is left to be done (*se queda por hacer*).” The only one of these works really worth noticing is the Canal of Castile, referred to in a preceding chapter. Eighty-one miles only were finished ; but the work was done in the most substantial and permanent manner, so that its continuation, now so actively undertaken, will not be embarrassed by the necessity of extensive repairs. It runs through a productive country, abounding in the best bread-stuffs, and can be readily and copiously sup-

plied from the Pisuerga, which washes the walls of Valladolid. Its completion, which is now a matter of no doubt, will give, as I have said, a most important impulse to the agriculture of Castile and the commerce of Santander. The canalization (as they called it) of the Ebro was the subject of a good deal of interest and discussion when I was in Spain, and it seemed likely then to be realized; but I have not been able to learn whether any actual progress has been made in the enterprise.* It was commenced during the reign of Charles the Third, and finished, from the neighborhood of Tudela, nearly to Zaragoza. Tortosa was its contemplated terminus, and such are the manifest advantages which it would confer upon a most productive region, that it is hard to understand how even the most adverse circumstances could have prevented its completion. A similar observation may with propriety be made, in reference to the lateral Canal of the Guadalquivir, a work of national and consummate importance, a portion of which was under contract, in 1850, and which seemed to have been taken up energetically by both the government and private capitalists. How far it was to be connected with a former noted, but unsuccessful, scheme for deepening portions of the channel as far as Cordova, I was unable to ascertain; but the consummation of either project would make an epoch in the national prosperity.

When I left Spain, the railway between Barcelona and Mataró, a distance of fifteen miles, was the only

* It is now announced that the work is in the hands of contractors for speedy completion.

one in active operation. I did not pass over it, but was informed that, although an excellent road, its construction had involved no great difficulty or expense. I have since seen an announcement in the journals, of its continuation to Areñys, some nine miles farther. In the autumn of 1850, the railway between Madrid and Aranjuez, a distance of twenty-four or five miles, was opened with great magnificence, in the presence of the Queen and Court. This road, of itself, is not of very great usefulness to trade, because, although directly on the routes between Andalucia, La Mancha, Valencia, &c. and the capital, it still forms but a small portion of the immense lines which it terminates. Its completion, however, must be of extreme importance in another point of view, by bringing those who work the springs of government at the capital in direct and unavoidable contact with the wisdom, value, and practicability of such enterprises. It thus may be, not only the beginning of a great central work, which will unite the plains of Castile with the shores of the Mediterranean and the wealth of the West and South, but perhaps the means of giving a direction to the public mind and energy, which will produce general results now hardly to be anticipated. Already, its continuation to Almansa, on the route to Alicante, is under contract and rapidly advancing.

The line of Langreo in the Asturias, established for the purpose of developing the immense resources of the coal region mentioned in the last chapter, was considerably advanced at the time of my departure, and its completion was looked for towards the close of 1850. The want of coal in Barcelona was

suggesting also, to the people of that enterprising capital, the necessity of a railway to San Juan de las Abadesas, and it was accordingly projected and commenced, with the usual energy of the Catalans. Its construction would occupy, it was supposed, but little over two years, so that by this time it must have nearly approached its termination. During the present summer (1852) the provincial deputation and the municipal corporation of Barcelona have petitioned the government for leave to construct a railway to Zaragoza, nearly one hundred and seventy miles, — a work of great difficulty, and which must of necessity be protracted and costly. If there be any province in which such an enterprise could be successful, it is Catalonia, and there is sufficient wealth and commercial and industrial activity among the inhabitants to render it altogether practicable. Recent accounts treat its consummation as certain. The very desire of so shrewd and calculating a people to take so heavy a responsibility on their own shoulders, is evidence at once of the probable productiveness of the work, and of the spirit which is awake in the nation.

I have referred, in another place, to the railway from Santander to Alar, with its projected continuation to Valladolid and Burgos. Important as this must be to the whole North, it will be rendered doubly so by the completion of the great line now contemplated between Madrid and the frontier of the Pyrenees, at Irun. The government seems to be really in earnest, in regard to this latter work, — having but lately decreed the sale of the communal property in the provinces through which it is to pass, for the purpose of devoting their

proceeds to its construction. It is scarcely possible to overrate the benefits with which the successful prosecution of so gigantic an enterprise would be pregnant. The Pyrenees would then, indeed, exist no longer, — not levelled, as the ambition of Louis the Fourteenth would have had them, that Spain might be an appanage of France, — but removed for ever, as a barrier to European intercourse and the march of European civilization. Emboldened, perhaps, by the action of the government in regard to this great Northern highway, or awakened at last to a sense of their necessities and resources, the people of the South have also laid their hands to the work. The authorities of Seville, according to the last advices, have sought permission to devote the proceeds of their communal property also to the construction of a railroad, which is to extend at least to the Sierra Morena, at Cordova. The nature of the country is such as to present few formidable obstacles to this enterprise, and its success would develop the riches and command the trade of the very garden of Spain. From Cadiz to Jerez and to Seville a line is in process of active construction.

It is unnecessary to mention a host of minor enterprises, projected, or more or less advanced, and which, though many of them may fail, must nevertheless result in something, here and there, of great and permanent advantage. While I was yet in Madrid, a Committee on Railroads, appointed by the House of Deputies, was holding its sessions during the recess of the Cortes. It was headed by Don Salustiano de Olozaga, the distinguished *Progresista*, an able and enlightened public man. Its meetings were attended

by several accomplished engineers, foreign and native, and by many prominent capitalists and enterprising and public-spirited citizens, who were summoned for the purpose of consultation. The committee was active in seeking, from them and from other trustworthy sources, such practical and scientific information as would enable its members to report the most judicious and promising scheme of general internal improvement. What was the result of its labors, in view of the dissolution of the Cortes and the change of ministry which followed, I have never ascertained. It was, as I learned, the first parliamentary inquisition ever held in Spain, and was regarded with great favor and interest, on that account and as a valuable precedent.

Pending the action of the Cortes, a royal decree was promulgated, prescribing the mode of applying for, and the conditions of obtaining, the privilege of railway construction. It involved—as the Spanish policy in such matters, by analogy to the French system, now always involves—a participation by the government in the control of the companies, which is foreign to all our notions of private enterprise and of a judicious and politic *laissez faire*. It provided, among other things, for a guaranty by the government, to the companies, of a minimum interest of six per cent. on their investments, — to commence from the completion of the works, — together with a sinking fund of one per cent., upon certain conditions. All the guaranties of the government were to be of no obligation, in case the works should cease, or the operation of the roads be suspended, by the default of the stockholders. The one per cent. sinking fund was to be continued, until the capital should

be extinguished, or, in other words, until the government should become the purchaser of the works.

It is not to be denied, that the exercise of a little more control, in our own country, by government, over the immense corporations on which railway privileges are conferred, would be exceedingly salutary, — conducive at once to the interest and safety of the citizen, and not unjust or disadvantageous to the corporators. But the mania which possesses the governments of the Continent to mingle themselves with every public enterprise, and be part and parcel of every speculation in which two or three are gathered together, is one which a constitutional system must counteract, if it would avail any thing. It often, in the long run, works its own retribution. The powers which control every thing, for their own advantage, are often made to bear the brunt of every thing, to their sorrow. The government is seen in so many things, that it is believed to be in all. When the crops failed in France, the peasantry of Louis Philippe could with difficulty be persuaded that it was not all the fault of "*ce diable de roi*"! And the *diable de roi*, poor fellow! paid dearly for it at last.

Although there is a great deal of disposable capital in Spain, — much more than is commonly believed in other countries, — the success of the railroad enterprises in contemplation must depend in a great degree upon the readiness of foreign capitalists to embark in them. This, in its turn, must depend upon their confidence in the permanency of existing institutions, and in the preservation of peace. Capital cannot possibly be led into channels, — no matter how tempting, —

which may, at any moment, be diverted or be drained by the outbreaking of revolutions, or the fluctuations of civil war and an irregular government. The same rule, indeed, applies to domestic as well as foreign capital, for the root of all evil is not often watered by patriotism, and Spanish capitalists heretofore have been wise enough to know the difference, in the matter of investment, between the British and the Spanish per cents. Of late years, however, things have changed greatly, in this regard. Capital has begun to abandon its former absenteeism, and now stays, for the most part, at home, to produce where it is produced. The same confidence which has caused this, has given the same direction to much foreign wealth. British stockholders are largely interested in the works already completed, and many of those projected have too many probabilities of success and of large returns, not to command a similar support. The knowledge of this fact, — of the prosperity, the development, the power it will bring, — and a conviction that peace and permanent institutions, steadily administered, are necessary to secure these blessings, — will, of equal necessity, tend to preserve that peace and permanence. Nations, for the most part, are governed by the convictions of the mass of their citizens, — especially by their convictions as to matters of interest; and thus is true, for another reason, what was observed in the opening of this chapter, — that the internal improvement of Spain is as vital to her civilization and good government, as to her material prosperity.

XXVII.

IMPROVEMENT IN AGRICULTURE AND ITS CAUSES. — IMPROVED VALUE OF LAND. — TERRITORIAL WEALTH AND PRODUCTION. — PRACTICAL FARMERS. — ESPARTERO. — AGRICULTURAL EDUCATION. — ECONOMICAL SOCIETIES. — AGRICULTURAL BUREAU AND ITS ACTION. — IRRIGATION. — GEOLOGICAL CHART. — COLONIZATION OF WASTE LAND. — IRISH COLONISTS. — DAIRY OF MADRID. — ADVANCEMENT IN MANUFACTURES AND COMMERCE. — PROHIBITORY DUTIES. — EXPORTS AND IMPORTS. — STEAM COASTERS AND COASTING TRADE. — MANUFACTURES. — CATALAN MONOPOLIES. — MANUFACTURING RESOURCES OF SPAIN. — MODIFICATIONS OF THE TARIFF. — SILK AND WOOLLEN FABRICS. — FLAX, HEMP, AND IRON. — NATIONAL ARSENALS AND FOUNDERIES.

THE subdivision of the Church property in Spain, and its passage into the hands of the laity, would alone be sufficient to account for the improvement in agriculture, since the establishment of the constitutional system. The immense tracts of land accumulated in mortmain were always regarded, by the wisest agricultural economists of the kingdom, as the chief cause of the torpor formerly so prevalent in that important branch of public industry. Though always administered

considerately, and with becoming forbearance towards the tenants, the estates of the Church — in addition to the other evils which their possession involved — were notoriously mismanaged as to productiveness. There were, of course, exceptions to the rule, but poverty and raggedness surrounded the wealthiest ecclesiastical endowments so generally, that to say a neighborhood was “clerical,” (*de clerigos*,) was, emphatically, to apply to it the strongest proverbial phrase for wretchedness and desolation.

Other and most serious impediments to agricultural progress have been removed by the abolition of tithes and other ecclesiastical dues and perquisites, as well as by the suppression of the multiform prescriptive imposts formerly levied by the state upon real property, and the substitution of a uniform system of assessment and taxation. Notwithstanding the unequal manner in which the present tax-laws occasionally operate in their details, the evils which result from them are purely administrative, and susceptible of practical remedy; but the old system was so vicious in all its principles, and so manifestly partial and oppressive, that its existence was altogether inconsistent with the possible prosperity of the landed interest.

It will not have escaped the reader, that the internal improvements referred to in the last chapter, as actually completed, must be an item of controlling importance in all calculations of agricultural promise. Those in progress, also, or serious contemplation, cannot fail to give great encouragement to rural labor, and increased value to real estate. In some districts, it is a familiar fact, that the wine of one vintage has to be

emptied, in waste, in order to furnish skins for the wine of the next, — the difficulty and cost of transportation to market being such, as utterly to preclude the producer from attempting a more profitable disposition of it. Staples of the most absolute and uniform necessity — wheat, for instance — are at prices absurdly different in different parts of the kingdom ; the proximity to market being such as to give them their current value in one quarter, while in another they are perhaps rotting in their places of deposit, without the hope of a demand. Until such a state of things shall have been cured, it will be useless to improve the soil, or stimulate production in the secluded districts ; and of course every circumstance which wears the promise of such cure must enter into the calculations of the future, and avail in them, according to its probabilities.

Other important pieces of legislation, which may not be enumerated here, such as the abolition of entails, &c., have, no doubt, combined with those just mentioned, to give an impulse to agricultural industry and the public good-will in its behalf ; for it is a significant fact, that, notwithstanding the immense amount of land thrown into the market by the Church confiscations, the value of agricultural property, and of real estate generally, has been steadily increasing throughout the greater part of the kingdom, since the termination of the civil war. Indeed, the Church property itself has commanded an average of nearly double the price at which it was officially assessed, according to the standards of value at the time of its seizure. If any reliance is to be placed upon the statistical information which Mellado has collected in his *Guia del Forastero*, the territorial wealth

of Spain was estimated in 1849 at \$ 369,400,000, being nearly \$ 116,000,000 more than it was supposed to amount to in 1803. It is stated in the same work, that the yearly product of the soil is now nearly \$ 3,000,000 greater than at the last-mentioned date, while the quantity of land in cultivation, which then scarcely amounted to one ninth of the whole soil, has now risen to more than two sevenths. What scope there yet is for the wisdom of the government and the industry and enterprise of the people, the last-mentioned fact will sufficiently show.

There is no better sign of a healthy national feeling, in regard to agriculture, than that many persons of influence and position have begun to take a personal interest and participation in the superintendence and cultivation of their farms, and the adoption of the improvements suggested by modern science. Of this—a thing until lately altogether unknown in Spain—the Ex-Regent Espartero is a most respectable illustration. He derived, from marriage, an excellent estate near the venerable Castilian city of Logroño, in a fertile and delightful quarter, on the borders of Aragon. Having retired to it, since his return from England, he has devoted his time and attention almost exclusively to the development of its resources, and the application of new methods of cultivation. These it is his effort to make as general as possible among his neighbors, and I am informed that the influence of his example has been materially beneficial already. It is more than probable that he will thus establish another, and a just, though modest, claim, to the title of public benefactor. To that title,—where it involves the outlay of private

fortune, without any chance of remuneration, with usury, from the public chest, — there are but few *pretendientes*, and the Duke may probably flatter himself that he has at last reached one position, which he may retain, — as long as he is content with it, — without fear of jealousy or exile.

The existing scheme of national education makes provision for the delivery of public lectures on agricultural science, and the instruction of students in matters connected with that branch of industry. There are other institutions, besides, under the care of the various Economical Societies, in the provinces, which are, perhaps, still more useful. These societies, originating in the enlightened views of Jovellanos and men like him, have been of incalculable service to the general industry of the nation, since the comparative freedom of later days has given scope to their investigations and reports. Many papers of great ability have proceeded and continue to proceed from them, and they are constantly diffusing information upon all matters connected with the material development of the nation. There is an excellent periodical conducted, in Madrid, by the society of "Friends of the Country" (*Amigos del Pais*), in which the most creditable essays are constantly appearing, and the experience and discoveries of more prosperous nations are applied, with great industry and assiduity, to the removal of prejudices and the extirpation of antiquated notions and methods. In some of the other cities, I am informed that similar journals are successfully dedicated to the same work. As an evidence that they are not without effect, I may mention, that in Catalonia, Valencia, and Murcia, where innova-

tion was, not long ago, a sin, the use of guano as a manure has been adopted, to a considerable extent, within the last two years. I have occasion to know, that its application has been so successful, and the demand for it has begun so to increase, that Spain is now looked to as a growing and prospectively important market, by those who regulate its distribution.

The interests of agriculture, until October, 1851, were protected by the same Department which presided over commerce, education, and public works. They now depend upon the new Department of *Fomento*. About \$ 100,000 were appropriated to the agricultural branch, by the budget of 1850, — over and above the expenses of the board for the superintendence of canals for irrigation, — an indispensable part of the system of cultivation, in some of the most fertile portions of the kingdom. While I was in Spain, many measures for the improvement of agriculture, in its various branches, were adopted by the Department, of its own motion and upon the suggestion of the Economical Societies. I remember being amused by a royal order, with a long preamble, directing the Royal Academy of Sciences, at Madrid, “*sin levantar mano*” (without lifting hand from the work), to offer proposals for the best essay on the causes of the constant droughts in the provinces of Murcia and Almeria, together with the means of preventing them, or counteracting their effects. It was possible to understand that the consequences of the droughts might, to some extent, be remedied artificially, but as the preamble asserted, in round terms, that the want of rain was their cause, there seemed no recourse for the