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ARGENTINA

From a Grain Man's
Point of View



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FOREWORD.

The following is offered as a representation of the conditions in Argentina that are of particular interest to grain men:

While the aim has been to make this report as concise and brief as possible, yet the many modifying conditions found in an agriculturally new country like Argentina make brief positive statements, to a certain extent, erroneous; hence the necessity of mentioning many qualifying circumstances. Exact figures on any subject or detailed statistics in any line are impossible to obtain in Argentina for any period of years, but within the last four years the Argentine Government has had a statistical department that is efficient. The previous lack of any organized statistical system is felt by this department as well as by the visiting investigator. Even now the system of obtaining vital statistics is not accurate. For instance, the government estimates as to grain acreages are based on the reports of threshermen, not upon figures from the tax books, or from figures presented by expert reporters. Such figures cannot be accurate, though they are the best obtainable and may be fairly correct.

A knowledge of these peculiar conditions will therefore explain many statements made in this report.

The visitor to Argentina will, however, be greatly pleased with the uniform and general courtesy shown him by government officials, and business men as well. Every possible facility is given to the investigator and he finds that any assistance or information that he may need or request, is invariably given with a hearty good will.

FRANK J. DELANY.

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ARGENTINA.

LATITUDE AND TOPOGRAPHY.

The Argentine Republic is situated between latitude 22° south and 55° south. Its northern boundary line is therefore about 200 miles nearer to the equator than is the most southern point of Florida. Its southern limit is some 400 miles nearer to the polar regions than is the northern boundary of the United States.

The agricultural area is at present confined to the district between 31° and 41° south. There is little cultivation of cereals north of 31° or south of 41° . So far as latitude is concerned, the agricultural area of Argentina may be compared to that portion of the United States lying between the cities of Vicksburg, Miss., and Dubuque, Iowa. The best lands devoted to agriculture are in the vicinity of rivers, particularly the Parana and the River Plate. These districts were settled first, have been cultivated most, and here the highest prices for lands rule, on account of the more favorable conditions of climate, water and proximity to markets.

The accompanying map shows the outlines of the wheat and corn belts of Argentina. Wheat and flax are produced everywhere in Argentina that agriculture is carried on. Therefore the limits of the wheat belt as shown on the map may be considered as the limits of the present area in which agriculture is carried on. Corn, however, is at present grown only within the limits marked, and while the corn acreage will undoubtedly increase, it will not increase so much or so fast as will the wheat or flax bearing acreage.

THE TOPOGRAPHY of the country, particularly of the areas under cultivation, can best be described as a vast level plain gradually rising as it extends westward from the seacoast or Plate river districts, until the foothills of the Andes are reached. There is no broken country intervening between the Andes and the sea coast in the central one-third of Argentina. The northern one-third is timbered and more or less uneven and irregular in surface, and to the south in the district west of Bahia Blanca small mountain ranges are found. The map showing the density of cultivation of Argentina indicates that the great plain or basin east of the Andes north of Bahia Blanca and south of a line drawn through the center of Santa Fe province from east to west is the district that offers available agricultural areas for the future, the northern limits of the Republic being wooded, and largely unexplored. Climatic conditions also are unfavorable for the extension of the agricultural area in the north as well as in the extreme south. The River districts,

those lands bordering on the River Plate, Parana or Uruguay rivers are low; the soil is alluvial and very fertile. Near the delta of the River Plate particularly, these lands are subject to inundation during periods of heavy rain-fall. In general the district west of Buenos Aires and west of Rosario resembles very much the flat, level country of Northern Indiana and the prairies of Illinois, except that there is in Argentina no native timber in these districts. Even the banks of the interior rivers are bare of trees, and the rivers run in clay channels, gravel or stone being extremely rare.

SALT MARSHES are found scattered through the country, and while the aggregate area of these saline marshes is very large, the marshes are not extensive in the agricultural belt. Most of the marshes are situated in the west and southern part of Buenos Aires province, and close to the foothills of the mountains in Cordoba, although some are found in the district west and south of the province of Sante Fe.

Over a considerable portion of Argentina there is uncertainty as to the character of the sub-surface water supply. Frequently it occurs that a vein of salt water will be tapped when boring a well near by one that is supplied by a vein of fresh water. Consequently the lands having an assured supply of fresh water wells are most valuable for grazing purposes, although few salt-water wells are found in the cultivated regions, as a general rule

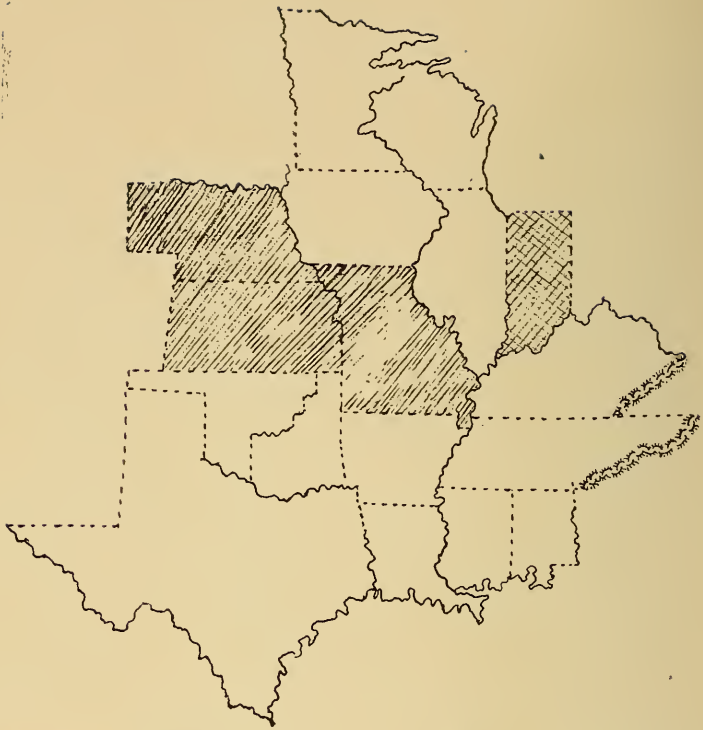
AREAS COMPARED WITH THE UNITED STATES.

The superficial area of Argentina is, roughly speaking, about 741 million acres. About 250 million acres are non-agricultural, that is, they are covered by mountains, rivers or saline marshes, or climatic or other conditions forbid agriculture. About 247 million acres are pastoral lands suitable for pasture or grazing lands, but at present non-agricultural because of character of soil, distance from railways, etc; 253 million acres are arable, that is, suited to agriculture, either because of soil and climate or transportation facilities, but of this vast area only about 20 million acres are at present under cultivation. Compared with the prominent agricultural states of America the Argentine Republic is in area equal to Kansas, Nebraska, Illinois, Iowa, Missouri, Indiana, Arkansas, Louisiana, Alabama, Texas, Tennessee, Mississippi, Wisconsin, Kentucky, Minnesota, Oklahoma, and Indian Territory, seventeen states. In area in acres Argentina is about 38 per cent of the area of the United States. Of the agricultural provinces of Argentina, Buenos Aires, Santa Fe, Cordoba and Entre Rios are important in the order named.

The relative sizes of the various areas under grain in Argentina may be arrived at as follows:



The total acreage under wheat in Argentina last year was about 10,500,000 acres, slightly larger than the combined wheat acreage of Kansas, Nebraska and Missouri for 1902. The total flax acreage in Argentina was about 3,675,000 acres, almost as large as the total flax acreage in the United States in 1902. The estimated corn acreage in Argentina last year was 4,450,000 acres, equivalent in size to the corn acreage of the State of Indiana. In this connection it must be remembered that the proportion of the harvested crop that is exported is very much larger in Argentina than in the United States, as the local consumptive demand for corn and flax particularly is practically unimportant. Live stock in Argentina as a general rule receives no cereal feed, the grass of the prairie lands sufficing in most years to keep cattle fat. When the natural pasturage fails Alfalfa offers a ready substitute for stock feeding purposes. Following is a brief description of the most important agricultural provinces before mentioned:

BUENOS AIRES province, situated at the mouth of the River Plate, has large areas of alluvial lands and ranks first in the production of wheat, corn and flax. Its area is something over 75 million acres, and it is therefore in extent about equal to the States of Nebraska and Oklahoma. According to the latest figures obtainable from the Department of Commerce and Statistics of Argentina the area under cultivation in the province is divided as follows: Wheat, 4,063,150 acres; corn, 1,612,910 acres; flax, 968,240 acres. Its wheat acreage is therefore about the same as that of Kansas, corn acreage about equal to South Dakota, and the flax area



MAP SHOWING AREA AND ACREAGES OF ARGENTINA
as compared with the United States.

Total area of seventeen States shown is 1,137,725 square miles.
Total area of Argentina is 1,125,000 square miles.

Wheat acreage of Argentina equal to		Kansas, Nebraska and Missouri.
Corn " " "		Indiana.

about equal to the combined flax acreage of Minnesota, Kansas, Iowa and Nebraska.

SANTA FE province is very largely timber land in the northern one-half of the province. The southern one-half is, however, a vast plain and is to a great extent alluvial land. Some of the best land in Argentina is in this province, and the agricultural area is practically all of that province south of the city of Santa Fe, which is the capital of the province. A considerable portion of this province is devoted to Alfalfa, which crop is more remunerative than corn or wheat, because of the slight amount of labor which it requires. The acreage suitable to the production of corn is, in Santa Fe, very large because of the favorable soil and climate and the growth of the production of corn promises to increase greatly in this province. The wheat acreage of Santa Fe is 3,314,740, or about equal to the wheat acreage of Michigan and Indiana. The corn acreage is at present 135,850, or about one-fifteenth of the corn acreage of Indiana. The flax acreage, 1,709,240 acres, is large, and is more than one-half of the total acreage under flax in the United States in 1902.

CORDOBA province, situated to the west of Santa Fe province, and north of Buenos Aires province, is level in its eastern and southern parts, has some scattered scantily timbered areas, and the northern and western part of the province is mountainous. Some years ago it was generally believed that the province of Cordoba would never prove profitable for agriculture because of the frequency of droughts. However, in recent years the weather has been favorable to agriculture; the cultivated area has increased very rapidly and during this year some of the finest wheat grown in Argentina came from this province. The wheat acreage of Cordoba, 2,239,210 acres, is about the same as that of Indiana. The corn acreage is relatively small, less than that of New Jersey. Flax area, 511,200, is about one-seventh of the total flax area of the United States.

ENTRE RIOS province, situated between the River Uruguay and River Parana, (the name Entre Rios signifies "between the rivers"), is largely devoted to stock raising, as it has immense areas of grazing lands, and the climatic conditions there have not been very favorable to agriculture. However, its wheat acreage, 521,170 acres, is about equal to the wheat acreage of Wisconsin (1902). The corn acreage (289,000 acres) is slightly greater than that of Cordoba, but the flax acreage is about 447,000 acres, is slightly larger than that of South Dakota.

These four provinces are the most important cereal producing provinces of the Argentine, but agriculture is carried on to varying extents in other provinces.

The modifying conditions and circumstances which govern the increase in cultivated area and the varying rates of increase of each cereal will be considered under the heading, "Methods of Cultivation."

CLIMATE.

A country which extends a distance of 2,000 miles from North to South offers a variety of climatic conditions, but as this report will deal only with the grain areas of Argentina, only the climate ruling in these districts will be considered. As a general rule the climate of Argentina is mild and healthful. The seasons are exactly the reverse of ours, that is, our winter months constitute the summer months in Argentina. The spring season in Argentina includes the months of September, October and November; Summer, December, January and February; Autumn, March, April and May, and Winter, June, July and August. Except in the southern portion of the country, snow is so rare as to be practically unknown, and while the agricultural regions of Argentina enjoy a climate that allows farm work, such as plowing, etc., to be carried on the year around, except when interrupted by rains, yet these districts are subjected to changes of temperature, sudden and severe. During the summer of 1903 frosts occurred in the southeastern portion of Buenos Aires province during the height of the wheat harvest, in the first half of December. As a general rule a southerly wind during the harvest season is very alarming to the farmer. The theory of the Agriculturist in regard to these sudden changes is as follows: "The Argentine Republic, occupying the major portion of the southern extremity of the South American continent, extends in a straight line almost to the Antarctic regions. The shape of the continent makes it subject to these severe changes of temperature. Long and relatively narrow, running into a point at its southern extremity, and with no important or extensive mountain ranges or forest areas intervening to break the force of the Antarctic winds, these winds sweep unobstructed over the vast plains of Argentina, and bring with them as a rule low temperatures. The immense width from east to west of the North American continent and the intervening hills and forest area protect the agricultural sections of this country from the Polar winds, and as a result the changes in temperature are not so sudden or so severe, and the temperatures of the United States, while they may be more extreme in their degrees of heat and cold, are more seasonable, and the changes are relatively more gradual. Then, too, the relatively small width of Argentina, and its level surface leaves it more easily and more positively affected by the winds from the South Atlantic ocean." According to this theory it will seem reasonable to assume that Argentina will be subjected to sudden changes of temperature always.

THE SEASONS in Argentina are classed either as rainy or dry. The rainy season may be said to include the months from October to March. The greatest rainfall occurs as a rule in October, November and December, continuing, but gradually decreasing, during January, February, and March. The rainy season is, therefore, the summer months, the winter months constituting the dry season. Sections of Argentina have in previous years been visited by long periods of droughts, but it is believed that the extension of cultivated area will do much to equalize both the temperatures and the rainfall.

METHODS OF CULTIVATION.

The dates and duration of the various farm operations differ somewhat in different locations in Argentina, but in general the months of March and April are devoted to plowing and preparing the land for seed. Wheat planting commences about May and continues into June and July. The harvesting and threshing begins November 15th and lasts two months, until January 15th. Corn is as a rule planted in September and October, but in some sections is planted in August, and the writer has seen excellent corn that had been planted as late as January. As a general rule the corn crop is ready for harvest in March, but the crop is left standing in field much longer than is the general custom in the United States, and corn shipping is as a rule greatest in May, June and July.

The methods of cultivation can hardly be described, because, while there is cultivation, there is a marked absence of method. The prairie or "camp" land is frequently broken up, and a crop of wheat sown broad-cast on the plowed land without any attempt at rolling or harrowing, or otherwise breaking the clods. In the well-cultivated, older sections, the ground will receive two plowings and a harrowing or a rolling, but invariably the wheat is sown broadcast. The result is that the wheat, while as a rule of good quality, is rather low in the scale of yield per acre. The average yield of wheat in Argentina is calculated at 13 bu. by the Agricultural Department of that country, but this is an exceedingly liberal estimate. Private figures covering productions for a period of years, and excluding the bad crop years, make the average about 12 bu. It should be borne in mind, in this connection, that these figures are based in both cases, on the acreage *threshed* not the acreage sown, so that the true average production per acre is not nearly so high as these figures would indicate. The production of wheat per acre in the United States for a period of years, including bad crop years, is 13½ bushels to the acre. Last year the average of wheat production to acre in the United States was 14½ bushels. The explanation given here will show that the difference in the yields per acre of the two countries is really greater than the figures quoted shows, but this difference in the rate of yield is due almost wholly to the difference in farming methods. Two or three times the amount of seed wheat per acre that the American farmer uses is necessary in Argentina, because of the method of planting, lack of selection of seed, and destruction by birds.

CORN is all drilled in similar to "fodder" or ensilage corn in America. The rows are 20 or 30 inches apart, and as a general rule the planting is performed at the time the ground receives the second, or cross-plowing, by a machine attached to the plow. The result is that some of the corn is planted under clods six inches deep, and some remains on top of the

ground. An unreasonably large amount is thus consumed in seeding, and, like the wheat, the seed corn is not selected. There are, however, corn-planting machines now in use in Argentina which are modifications of the American corn-planter. These machines plant two or three or even four rows of corn at a time. There are very few "check-rower" planters in Argentina, and only in rare cases is the corn planted, as in America, in squares, or, as the Argentines call it, on the "checkerboard" plan. The growing crop receives very little cultivation. In fact, one cultivation is the general rule; two if the farmer finds the time before the corn has grown too tall; and of course all of the cultivation is one-way cultivation, because the corn is "drilled in."



TROJA OR ARGENTINE CORN CRIB.

This is much larger than the ordinary type. The ear corn is hauled from the field to the troja on the wooden platform shown in foreground.

The farmer as a rule is willing to admit that he is not farming his land well, or right, but he is doing all that he can, because invariably the Argentine farmer attempts too much. The average rented farm in Argentina is rarely less than 100 hektares, 247 acres, and is sometimes 400 to 500 acres. It can readily be seen that when one man attempts to farm 240 to 400 acres, he cannot devote very much time to the cultivation of his crops. He sows the seed as best he can and trusts to Providence for the rest. The harvest, too, finds the farmer helpless, because of the general demand for farm labor at that time, making wages high, and labor scarce even

at high wages, so that not infrequently a large portion of a very promising corn or wheat crop is lost through sheer inability to harvest it.

The wheat harvest is performed for the most part by American farm machinery, Binders or Headers, the "Header" being most used because of the greater amount which it can harvest in a day. A harvesting machine called a "stripper," which has been in use in Australia for some years, has been extensively introduced into Argentina this last year. This machine strips the wheat berries from the stalk, threshes the grain and delivers it into bags in one operation. The machine is very wasteful and as it is not adapted to varying conditions of weather and soil, it is not likely to prove a solution of the Argentine harvest problem.

The threshing is performed immediately after harvest, and the wheat is delivered to railway station as fast as threshed. Only in rare cases is any provision made for the storing of the grain upon the farmer's premises. Threshing costs are very high, about 10 cents gold per bushel for wheat, against about 6 cents in the United States. Corn is husked by hand, either into a sack carried by the laborer slung over his shoulders or else thrown on the ground and afterward gathered up and hauled to the farmer's cabin, where it is stored in a "troja." The "troja" looks like an American Indian wigwam, and is of basket-like construction. It is made of saplings and corn stalks interlaced and held together by wires. The ear corn is piled up in this contrivance, and while the troja protects the grain in a measure from the rain, the corn is piled in a mass and the lack of ventilation injures its quality. The shelling is performed by American machinery as soon after harvest as possible. Neither corn nor wheat can be stored for long periods of time in Argentina, because of the ravages of weevil. The absence of frosts severe enough to kill the weevil subjects the stored grain to the danger of destruction by this insect after a certain length of time has elapsed. Of course bins and buildings can be constructed in such a manner as to render it possible to destroy weevil, by chemical means; but there are no such facilities on Argentine farms, and it will be years before such economic measures are adopted.

The whole scheme of grain raising in Argentina is wasteful in the extreme, not because the farmer desires or is indifferent to, the waste, but because the waste is an unavoidable result of the system, or rather lack of system, in farming operations, and it is beyond the power of the farmer to remedy conditions even if he knew how. It is a result of causes beyond the control of the colonist, who feels the loss most, and can be traced to the system of rents, the governmental conditions, the social conditions, and the attitude of the native toward agriculture, and toward immigration. Most of the farmers in Argentina are tenants, who hold leases of from three to five years, upon varying conditions, and varying terms of rental.

RENTS which are paid in shares of crops vary from 10 per cent of the harvested crops to 50 per cent; and cash rents range from 37½c gold to \$4.00 per acre, gold, depending upon location of farm, quality of land, and the capital of the tenant. Land values cover a very wide range.

Unbroken wild "camp" or prairie land has been sold in large tracts as low as 20 cents gold per acre, and cultivated farms near cities are now held at \$50 to \$75 gold per acre in some instances. There has been a boom in Argentine real estate values in the past two years. Much land speculation has resulted, and conservative Argentine business men say that land values are now at a figure that is too high; that while higher prices generally may be expected to rule later, yet the present values are the results of an advance that has been too rapid to be healthy.

The best alfalfa lands in Argentina are also as a rule the best alfalfa lands, and as alfalfa has been a very remunerative crop, the tenure of tenancy on many large farms is only a preliminary to getting the land under alfalfa. The large profits in raising live stock, and the natural liking of the native Argentine for this business (because he knows more about it than he does about agriculture) operate to the detriment of agriculture, and makes the tenant colonist a semi-nomad.

The peculiar situation in this respect that exists in Argentina is aptly described by W. Singer Barclay in a recent number of *McMillan's Magazine* under the caption, *The World's Future Meat Store*. This writer says:

"The wealth of Argentina consists of the deep alluvial mould of her pampas and the success with which the nitrogenous lucerne (alfalfa) is grown there. Strange to say, the ordinary progress of civilization is reversed. Pasturage in Argentina succeeds tillage. The great pampas are first of all broken up by the plow and made to grow cereals. Then, after three or four years of agriculture, the land is sown with lucerne (alfalfa), and becomes extremely profitable pasture. As the growing of wheat is undertaken principally as a means of preparing the land for the lucrative growth of alfalfa, 'wheat can be grown at a profit under cost price.' As yet only one-seventh of the available farm area of the republic has felt the plow. Meanwhile, agriculture may be likened to a wave, which, sweeping inland from the coast, leaves green fields and grazing herds behind it. Argentina is supposed to contain eleven million sheep, more than there are in Australia and New Zealand combined—and twenty-five millions cattle, two-thirds of the number in the United States. The Argentine output seems within measurable distance of controlling the world's meat markets. Butcher's meat is the main staple of Argentine prosperity, but the growth of wheat, as has been seen, and the export of butter, are important by-products."

IMMIGRATION—TYPE OF ARGENTINE FARMER.

Inasmuch as the volume of the immigration to Argentine, and the quality of the immigration as well must to a large extent determine the rapidity of the growth and agricultural development of Argentina, a consideration of this subject is necessary in order to form an adequate idea of Argentina.

The total net over-sea immigration to Argentina during 1902 was about 58,000 persons. Of these, 30,500 came from Italy, 12,200 from Spain, 6,500 from France and 4,800 from Brazil. Germany, England, Belgium and Portugal contributed 3,500, and the remainder, about 500, came from various other countries. As these figures show, the immigration to Argentina during 1902 was smaller than during any year since 1898, and was very disappointing to the Argentina Immigration Department. An official inquiry was started in order to discover, if possible, the reason or reasons why Argentina failed to attract her share of the exodus from Europe. The report of this commission has not yet been made public. Figures gathered from various unofficial sources, however, indicate that the immigration to Argentina was more satisfactory in volume of late and would probably reach the figure of 84,000 for the past year.

Most of the farming in Argentina being carried on either by "peons" (native laborers), or tenant colonists, Argentina depends very largely upon immigration for its supply of farm laborers. The "Peon," while a master-hand at caring for herds of live stock, loses much of his efficiency when he is out of the saddle, and he does not take kindly to farming. Therefore, the immigrant finds a market for his labor, and a chance for a start by engaging in agriculture. The fact that most immigrants to Argentina come with no capital and are necessarily compelled to secure credit from their landlord or from the owner of the little village store for their farming machinery, as well as food and wearing supplies for the first year, places them largely at the mercy of the store-keeper or of the landlord or both.

The Italian immigrant comes to Argentina because of the similarity of languages and climate and cheap ocean fares. While he is excellent as a colonist, for the reason that he is a hard worker and requires little in the way of supplies, being content with living conditions that few other nationalities would endure, he is not a good farmer, for he knows nothing about agriculture. The average Italian colonist lives in a mud hut, of which illustrations are shown, and when his period of tenancy is over he is prepared to move to the frontier and begin all over. As a rule he starts out in debt to the "Almacenero" (country store-keeper), and he remains in debt, for he is charged very high prices for his supplies and his losses during a bad crop year more than equalize the profits accrued during years of good crops.

Argentine land laws are called by Argentines model laws, and despite the honest endeavors of the Argentine government to attract immigration the immigration is unsatisfactory in quality as well as in quantity. Argentina is particularly anxious to attract American farmers there, but the effort has been so far unsuccessful. The reason for this condition of affairs involves a greater amount of analysis than the scope of this report allows.

Within recent years it has become a practice for Italian laborers to take advantage of the cheap ocean fares and come to Argentina from Italy or from Brazil, for the wheat harvest, returning at the conclusion of the harvest. In general it may be stated that the practice in former years in Argentina of bestowing immense grants of land upon political or military



THREE STAGES OF PROSPERITY.

Typical mud huts occupied by average Italian colonist in Argentina. On the extreme right of the picture is shown a "corral" made of twisted limbs of trees, indicating the scarcity of lumber. Next comes the first hut built by the colonist—mud plastered over corn stalks, with thatched roof. A good crop the first year allowed the building of the hut in the center of picture, and another good crop allowed the construction of the largest hut.

heroes, and the acquisition of immense areas by wealthy natives has placed Argentina very much in the position of European states, in that the best lands are held in large tracts by wealthy people. The profits in stock raising and the liking of the native for that business makes the intending colonist accept a grant of land on the frontier, far from transportation

facilities, or he must become a tenant, for he finds it practically impossible to buy small parcels of land in the best districts. The Argentine law which compels the division of estates equally among the children upon the death of the head of the family will however, work to improve this condition of affairs, and will gradually divide up those immense estates into smaller parcels, and will, besides, place many of these smaller parcels on the market, for, like most Latin races, the tendency of the native Argentine is to live up to his income.

Various colonies have been formed by foreign and native companies controlling vast areas of land in Argentina, and these colonies do their utmost to attract settlers, some of them selling the land upon favorable terms, but in general the idea of tenancy is the idea upon which the owner of the land of Argentina works.

TRANSPORTATION.

The total railway mileage of Argentina is 11,340. Of these railways 1,245 miles are owned by the Argentine Government. The rest, 10,095 miles, are owned by various foreign capitalists. The English group of capitalists is the most prominent in Argentine Railway ownerships, owning most of the railway mileage, but the French capitalists have important railway interests. About 7,800 miles of railway are wide gauge, 5½ feet; 1,200 miles are standard American gauge, 4 ft. 8½ in., and about 2,500 miles are narrow gauge, 1 metre, or 3 feet, 3 1-3 inches. Passenger coaches are for the most part of American design and construction.

The motive power is for the most part of European type and construction, although there is a growing tendency to adopt the American types of locomotives and cars. The transportation problem in Argentina is the same as in America, viz.: the handling of great tonnages, long distances, and the effort to solve this problem by using facilities adapted to the European or English traffic problem (the transportation of package freights short distances), has proven costly and unsatisfactory to the railway companies. The capacities of the various freight cars differ greatly, varying from 11,000 lbs. to 80,000 lbs. The large cars are, however, new and are few in number, so that the average capacity of an Argentina flat car is probably in the neighborhood of 24,000 to 25,000 lbs., and of the box cars about 21,000, slightly less than half the relative average car capacities in the United States.

COMPARISON OF FREIGHT CHARGES ON WHEAT.

ARGENTINA.				UNITED STATES.			
DISTANCES AND RATES AS INDICATED.				DISTANCES FROM AND RATES TO CHICAGO.			
<i>Towns</i>	<i>Distance Miles</i>	<i>Rates</i>		<i>Towns</i>	<i>Distance Miles</i>	<i>Local Rate</i>	<i>Thro. Rate</i>
Baradero to Buenos Aires..	92	.084		Pontiac, Ill. . . .	92	.06	.045
Baradero to Rosario.	96	.097		Ocoya, Ill.	97	.06	.045
Rafaela to Rosario.	114	.092		Towanda, Ill. . . .	118	.06	.045
Junin to Buenos Aires.	155	.10		Lincoln, Ill. . . .	156	.07	.045
Villa Maria to Rosario.	157	.16		Broadwell, Ill . . .	163	.07	.045
Azul to Buenos Aires.	179	.105		Sherman, Ill. . . .	178	.08	.06
Rufino to Rosario	185	.127		Spr'gfield, Ill. . .	185	.08	.06
Pehuago to Buenos Aires. . . .	225	.133		Carlinville, Ill . .	224	.08	.06
M. La Plata to Buenos Aires . . .	248	.14		Brighton, Ill. . . .	246	.08	.06
Rufino to Buenos Aires.	259	.18		Alton, Ill.	257	.06	.03
Drysdale to Buenos Aires.	306	.15		Vandalia, Mo. . . .	302	.14	.12
Necochea to Buenos Aires.	327	.156		Mexico, Mo.	326	.14	.12

In this table the freight rates are quoted in United States gold cents and decimals of a cent per 100 pounds. The Argentine standards, kilometers, metrical tons, and national currency, have been converted into United States standards for ready comparison. The United States towns tabulated are situated on Chicago and Alton Railway, and have been selected in order to make distance comparisons correct as nearly as possible.

Although grades are as a general rule light, yet trains are small because of small engines. Railway freight charges on grain, as shown by accompanying table, are relatively much higher than in the United States, but traffic conditions are in a measure different. In the United States the traffic flows in both directions, and the tonnage traveling from East to West is probably as great in volume as that flowing from West to East. In Argentina the tonnage flows from the interior to the seaboard. The tonnage from seaboard to the interior is relatively very small because of the extremely limited consuming power of the interior population. Proportionately the greatest consuming classes live in Buenos Aires on the seaboard. Naturally a large proportion of the service performed by railways in Argentina is unremunerative and the rates are necessarily higher.

Argentine railway development and operation has been hampered both by local conditions and by unwise policies of the owners, who are, for the most part, English capitalists. The men in Argentina managing railways are bright and well informed and thoroughly up to date in their ideas, but the fact that the directories of most of the railways are located in London and the disposition of these directories to manage railways in Argentina, by cablegrams from London, has hampered active management in Argentina very much.

The methods of transporting grain are primitive. The wheat being threshed immediately after harvest, is hauled to the railway stations in bags, and there the bags are piled upon flat cars. When the car is loaded the sacked wheat is sheltered from the weather only by a large canvas covering the entire carload. Generally the crop movement is very heavy immediately after harvest, cars are scarce and in the absence of cars the sacked wheat is piled up in immense piles on the ground, large canvas covers being the only protection from the elements. Naturally the item of waste from damage is very large.

GOVERNMENT SUPERVISION OF RAILWAYS.

The Argentine government supervises the tariffs and all other important details of railway management, and some government regulations are in force which at first glance appear ideal, but which are as a rule evaded or ignored in a way, by the railways, so that the laws are not as effective in practice as they are in theory. The Argentine Railway law provides that a fine shall be assessed against the railway if a train is late. The result is that time-table schedules are so low that it is next to an impossibility for a train to be late. Argentine law also restricts the speed of trains within certain limits upon certain conditions.

The railways in Argentina use a uniform bill of lading approved by the government. This bill of lading is a combination bill-of-lading and expense-bill, and on the back of each bill of lading is a table showing the time allowed for the transportation of the goods. A certain period of time is allowed for the transportation of the goods to destination and goods must be delivered by railways within the time specified or forfeit their freight charges in exact proportion to the delay. In other words, if time consumed in transit is 10 per cent more than that allowed by the table, 10 per cent must be deducted from the freight charges. This 10 per cent of course goes to repay the consignor or consignee for the loss occasioned by delay. If the time consumed in transportation is double or more than double the time allotted, the entire freight charge is refunded and the shipper has in addition a right to sue for additional damages if any have resulted.

The effect of this law is in the main good, but railways as a rule try to avoid any delays by refusing to furnish cars until they are reasonably certain that the cars will not be delayed in terminals or en route to destination. There has been a law recently promulgated in Argentina compelling railway companies to build (galpons) or warehouses at the country stations for the storage of grain. While the railways are thus compelled to furnish storage facilities for grain, they are, by the same law, empowered to charge the owner of the grain storage at the rate of 30c per month per cubic metre of space occupied in warehouse. This is a rate of a fraction over $\frac{1}{2}$ -cent gold a bushel per month. It is believed that this law will have the effect either of lowering the elevator charges at railway terminals or of causing the construction of new storage capacity at terminals rather than at country points; in the endeavor to avoid the building of country point storage capacity.

Argentine railways have a number of excellent rules that are of interest to grain men in the United States, the followings being a summary of the most important:

"Cars are furnished to shippers in the order of requests. One shipper may not ask for more than 12 large or 20

small cars in one day, but he may ask for this maximum each day. Cars set in on side track at shipper's request, if not loaded immediately, are subject to demurrage charge from date of delivery at station until they are finally loaded. All cars must be billed the day they are loaded, otherwise demurrage ensues. Demurrage is charged according to size of the cars, being as a rule about 50 cents gold per axle per day. (A small car has but two axles, a large one four.)"

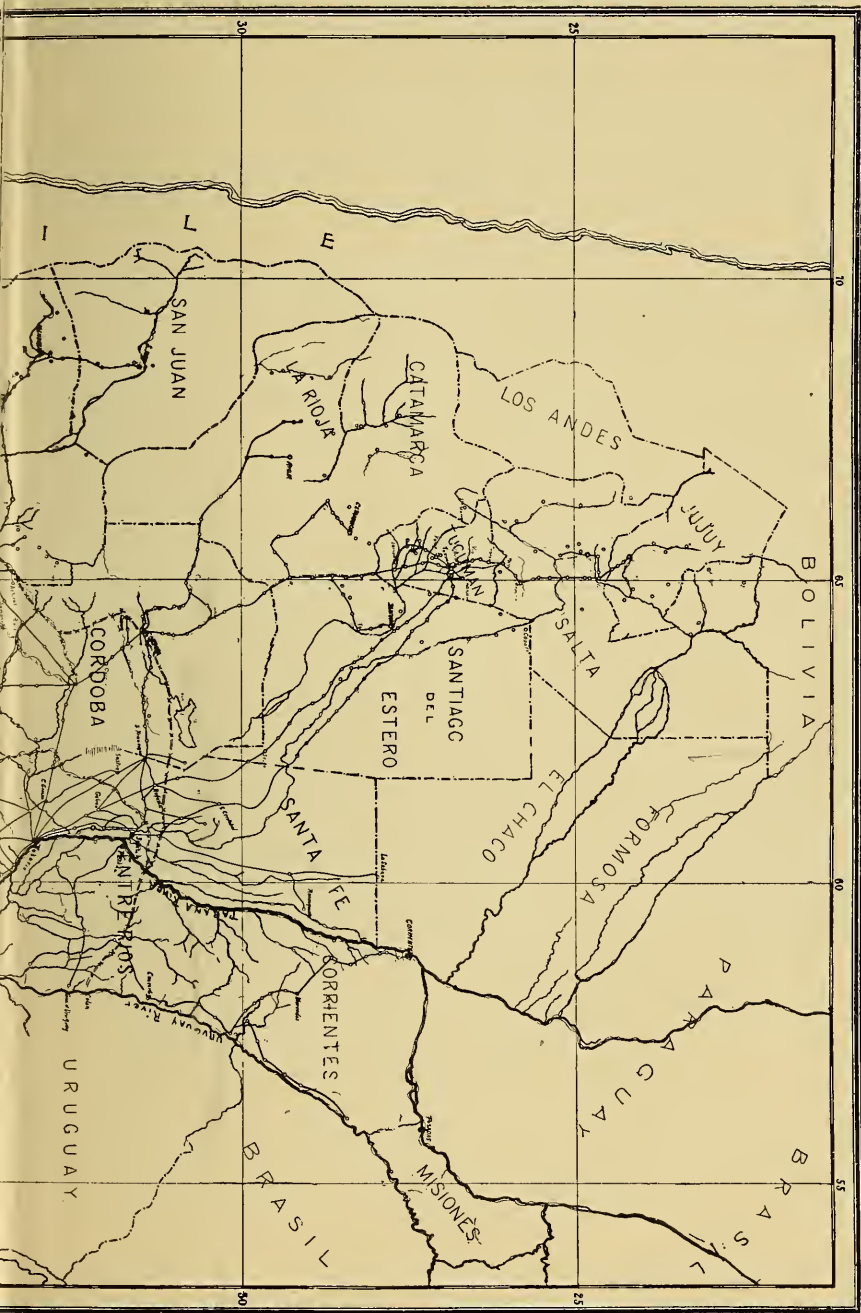
When cars are overloaded, the excess weight must be paid for at double the ordinary freight rate.

The railway rates for grain are based on distance, and are assessed on the weight in tons, averaging much higher than charged in the United States for similar service. Live-stock charges are not based on weights, but are an arbitrary charge per car according to distance. Live-stock rates average lower than grain rates.

The policy of the railways has been to gradually extend their lines, and that policy has been the most potent factor in the development of Argentina. The following quotation from a report made to the English Directory by one of the prominent Argentine railway managers is interesting:

"There were some 12,000,000 acres in wheat and linseed last year in the whole Republic, and a large new area of land will go into cultivation this season. The virgin area still available for agriculture is vast, though it is doubtful if in the far west and south, where the water lies at a greater depth and is frequently brackish, and the rainfall is scant, the cultivation of cereals would be successful without irrigation. But it would be hazardous at the present time to draw the limits of the wheat-growing area, and while so much good, useful soil still remains untouched, the spread of agriculture depends, not upon the natural resources of the country, but upon the arrival of labor to turn them to account. * * * Throughout the agricultural zone new branches are being made, carrying the colonist and the tools of his craft to virgin lands, and putting him in touch with his buying market. Every lineal mile of new railway calls 'fifteen thousand acres of land into cultivation.' No wonder, then, gentlemen, that we are hungry after extensions and are constantly asking you for fresh capital to make them with, and our programme now is to go on quietly developing our zone."





ELEVATORS.

There are no country elevators in Argentina and until the country is more developed, until there is adequate and cheap terminal storage capacity, until the peculiar commercial conditions change, there is no possibility that country point elevators would be anything but a very unprofitable venture.

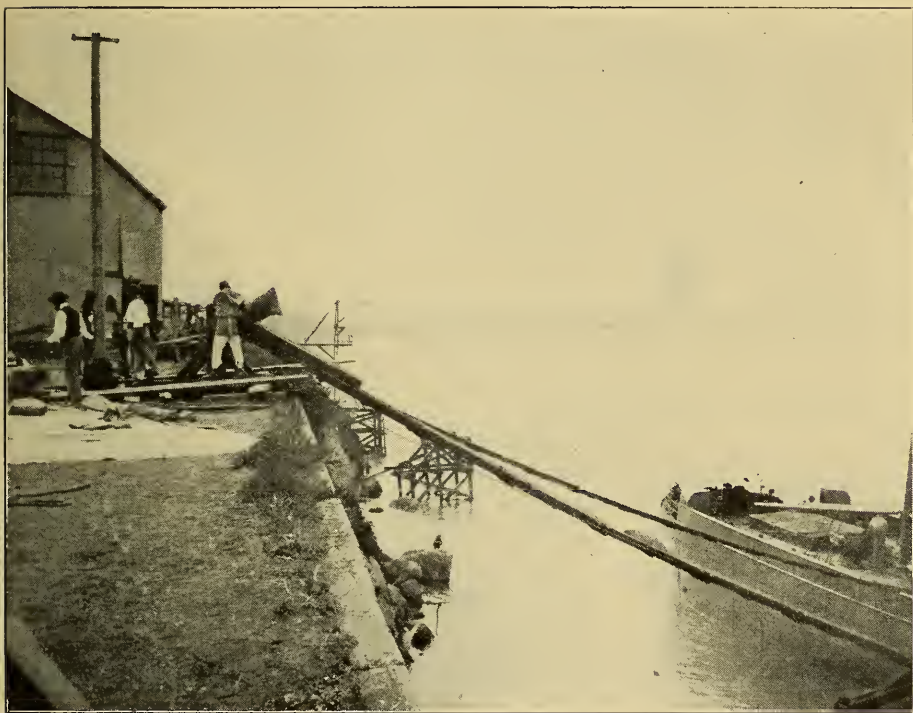
There are three large terminal elevators at Buenos Aires. One, the immense new elevator owned by the Buenos Aires & Rosario Railway, has been completed only during the last few months. This building is constructed of steel and concrete, is fireproof, has a capacity of over two million bushels of bulk grain and bagged grain. The working capacity of this house is calculated at about 200,000 bushels per day, that is, it can unload from cars and discharge into vessels a total of 200,000 bushels per day. A large milling concern owns an elevator constructed after the American tank style, the tanks being made of Argentine brick. This house has a total storage capacity of about 1,000,000 bushels, but as it has never yet been loaded to its full capacity it has not yet been tested. A private grain firm operates the third elevator, a relatively small one of about 300,000 bushels capacity.

At Rosario there are four elevators.

The Colorado Elevator, owned by the Central Argentine railway, is a wooden house built on American plans. It has a capacity of about 300,000 bushels, but is used very little on account of the high charges assessed against the grain going through it. The "Davis" Elevator, the "Allardyce" plant and the "Coffin" mill and elevator have limited storage capacities for bulk grain, and are not of modern elevator type, although each plant has large storage capacity for the storage of bagged grain. At Rosario the general practice is to pile the bagged grain up in large warehouses, and when these are filled to pile the sacks in the open air, on large platforms, the completed piles being covered by large canvases. Each exporting firm rents the railway company's ground adjacent to the tracks fronting on the Parana river, and the grain is piled up in the open air to await steamer tonnage. The result is that at times the Rosario river-front is covered with immense piles of bagged grain awaiting steamers. Handling the grain in this way the items of waste are large. Most of the grain is shipped to Europe in bags, not more than 30 per cent of the total shipments from Argentina being bulk shipments, although the percentage of bulk shipments is gradually increasing. There are no car lot shipments of grain in bulk. The river bank at Rosario is 20 to 30 feet above the water, and as the channel is on the city side of the river deep draught ocean vessels tie up to the bank and receive their loads direct from the piles, the sacked wheat being carried by "Peons" to long wooden chutes called "canalettas."

The bags slide down these chutes to the hold of the vessel, and the bank is high enough in some places to allow of the loading at the same time of four ocean vessels lying abreast. The bags are of flimsy character, and in process of handling and sliding down the chute many rip or burst and much grain is lost. A sample of each bag is taken by a man stationed at the land end of the canaletta for that purpose. He pierces each bag with a steel trier and takes out a small quantity of grain which is thrown into a nearby receptacle. The aggregate samplings thus secured represent an average sample of the shipment.

The elevators mentioned are used at Rosario only in times of great need, and while they are equipped with mod-



LOADING OCEAN VESSEL WITH CORN AT ROSARIO.

This method of loading is in general use. The man in shirt sleeves at extreme left of picture is a private grain inspector.

ern machinery and are efficient, the grain trade there prefers to follow this crude system of handling grain in bags by hand labor, and the Davis Mill and Elevator is practically the only one that is in operation the year around. The Davis elevator, while not of modern style of construction, is equipped with some modern grain-handling machinery, and contains the only corn drier in Argentina. This machine is built on an English plan and is a very large affair, and closely resembles the Hess drier in principle, although its construction and operation are somewhat different. The drier has a capacity of about 30 tons per hour of corn and 40 to 50 tons per hour

of wheat. The capacity varies of course according to the condition of the grain. The heat for the drier is produced in an immense open fireplace or oven in which coke is burned, the heated air being drawn through the slowly moving mass of grain in the drier by immense suction fans. The operation of this drier is very costly and the general trade opinion seems to be that it has not been a success, for it does not insure the grain arriving at European markets in condition. The opinion of the writer, however, is to the contrary. While the drier is of a type that would not be tolerated by insurance companies in America, nevertheless most of its failures can probably be traced to its high cost of operation, and the consequent effort to rush the grain through, thus drying it unevenly or improperly. But this brings us to the all important question that confronts the grain trade in Argentina.

DAMAGE TO GRAIN IN TRANSIT.

Why is it that such a large proportion of Argentine grain arrives at the foreign markets out of condition? The answers to this question are as numerous as they are unsatisfactory, and no one has as yet promulgated a theory or offered a remedy that seems to fit all conditions. Grain dealers are divided in opinions. Some claim that the practice of ventilating grain cargoes while at sea helps the condition of the grain. Others claim the contrary and insist on their cargoes going to destination under closed hatches. Cleaning corn and wheat has proven beneficial in some cases, and of no benefit in others. The same may be said of drying. The plans that have been tried with a view to insuring quality at destination are as numerous and varied as can be imagined. The writer had an opportunity of witnessing a rather unusual experiment along this line. According to the Pasteur theory that fermentation of grain was largely caused by the presence of living germs, a chemical treatment that would destroy germ life would prevent fermentation, and preserve the grain. The cargo steamer "Abergeldie" was equipped with the Clayton system of sulphur fumigation. This consists of a sulphur burning oven, pumps and long pipes distributed through the hold of the vessel so that sulphur fumes could be pumped through, to penetrate every portion of the cargo. The sulphur treatment was applied to several holds and others left untreated, with the idea of comparing results at destination. The result of this last experiment is as yet unknown, but previous experiments along the same lines proved nothing, for the reason that of the cargoes undergoing this partial treatment, the corn that received no treatment from the fumes arrived in good shape, in exactly the same condition as did the corn that had been fumigated.

To one unfamiliar with the scientific side of this question it would appear that the reasons for the poor keeping qualities of Argentine grain lie in the methods of harvesting and securing the crop, as well as in careless handling after harvest. Improvement in farming methods would therefore tend to improve the shipping qualities of the grain.

GRAIN TYPES AND YIELDS.—Argentine *corn* particularly seems to be of a type that should stand long voyages, for the corn berry is a round, flinty variety, similar to what is known here as "Yankee" corn, and resembles the corn grown in our eastern states. Some corn of the "Dent" type is grown in Argentina, and is called there American "Horsetooth" corn. The yield has been satisfactory whenever this variety has been tried, but the Argentines are pronounced in their preference for the variety described herein as "Yankee" corn. The corn yields in Argentina are difficult to arrive at, but the average as nearly as could be learned from interviews with many grain men and agriculturists may be fairly stated at

25 to 30 bushels per acre. Seventy and eighty bushel yields have been reported, and there is no question but that the depth of the alluvial soil in some sections of Argentina and proper cultivation of the growing plant will combine to produce phenomenal yields permanently in some places, but as a general rule 25 to 30 bushels per acre is a very fair estimate of the average production per acre, in the corn belt in Argentina at present.

The quality of Argentine wheat is excellent. The wheat most generally grown is known as Barletta wheat. This wheat resembles a Kansas hard winter wheat in form and color of berry, but it is really different, being a soft strong winter wheat. The seed was probably originally a hard winter wheat, but it has adapted itself to a climate that has no winter and has retained its chemical strength. Some very fine wheats have been exhibited as samples of this last crop. The writer saw one sample that tested 68 pounds to bushel, and while this is extraordinary, tests of 62 pounds to 64 pounds are not at all exceptional. Though the wheat is of excellent quality, the yield per acre is low because of the reasons mentioned previously. A peculiarly fortunate characteristic of this Barletta wheat is that the berries do not fall from the head when ripe. They remain in the husk and dry into the stalk after maturity, consequently the wheat can be harvested after it is completely ripened.

Other varieties of wheats, Hungarian, French and Russo, are raised, but in general the Barletta is fast superseding all others. Some "Candeal" or Macaroni wheat is grown there. Local macaroni mills consume most of the supply of this wheat, and the rest is exported to Italy. Some millers have succeeded in grinding a 10 per cent mixture of macaroni wheat with other types of wheat without impairing the flour product, but as a general rule the milling machinery does not allow greater than a 10 per cent mixture. The macaroni wheat sells at a discount under the other types, and for that reason its cultivation does not increase in as fast a ratio as does the cultivation of Barletta wheat.

COMMERCIAL EXCHANGES.

In Buenos Aires there are two exchanges. The greater in point of general importance is the Bolsa de Comercio. This exchange is situated in the heart of the business district on the street called Bartolomae, Mitre, which is the Wall street of South America. On the floor of this exchange money, stocks, grain, wool and real estate transactions are carried on. The transactions in stocks and grain are the most important, but until the recent enactment of the Conversion law, which placed the money rates on a stable basis, there was an enormous volume of speculation in gold. Under this conversion law the Argentine paper dollar maintains a stable value of $44\frac{1}{2}$ cents gold. The government of Argentina under this law binds itself to redeem its paper currency at the rate of 222.27, and a gold reserve amounting to some 35 million dollars is constantly carried in the (Casa de Conversion), or Conversion Treasury, for this purpose. The stability of gold values thus created eliminated speculation in gold. The grain transactions and stock transactions are large in volume, though the exchanges in Argentina are not as stringent in their rules, nor do they control their members as completely as do similar exchanges in this country, for membership in an exchange, so far as the grain business is concerned, is only an advantage in Argentina, not an absolute necessity. Consequently disciplinary measures are light, and memberships in the exchanges are not so valuable or important an asset as they are here.

The membership of this Bolsa De Comercio at Buenos Aires is large from the fact that it recognizes all classes and kinds of commercial activity. It has various subdivisions or Camaras (governing committees), such as the Camara Syndical, or Real Estate Committee, the Camara, Oro or Gold Committee, and the Camara of Stocks, as well as the Camara de Cereals, and various committees of arbitration attend to the settlement of commercial differences between members. Its rules are lengthy and detailed, and it punishes members for infractions of rules by fines, suspension or expulsion. However, the influence of this body over the customs of the grain trade is not great, for the grain trade is not old enough in the Argentine to have acquired any well established customs that have become law through general observance. All contracts for purchase and sale are individual contracts, and the conditions of purchase and sale of any commodity are modified at will by the parties to the contract. All contracts are in writing, and although the Bolsa De Cereals has promulgated a general form of contract which has been modified somewhat by the Camara de Cereals of the Bolsa De Comercio, yet the provisions of this general form are not clear or positive, and as a general statement it may be said that no two grain contracts are the same.

On this exchange, the sessions are from 1 p. m. to 2 and from 4 to 5 p. m. There is very little actual trading in grain, although grain men attend these sessions to meet each other

and verbal agreements as to purchase and sales are made, though samples of grain are rarely exhibited. With the transactions in the other departments of the Bolsa De Comercio, however, the case is different. In stocks and bonds and in gold the transactions are made on the floor of the exchange and are matters of record, although the stock trade is narrow and the gold speculation and consequent trade and exchange has practically become extinguished. Grain is all sold on the Metrical system, the unit being the 100 kilos, equivalent to 220.25 pounds, although contracts for sale are invariably made in tons, the tons being the long ton, or 2,240 of our pounds. The market quotations are recorded in Argentine paper money values, and the conditions of sale



BRICK TANK ELEVATOR AND FLOUR MILL ON DOCKS AT BUENOS AIRES.

This house is constructed of Argentine brick and has a storage capacity of 1,000,000 bushels.

depend on the color and quality of the grain, and the weight in kilos per hectolitre, the average weights of wheat running from 75 to 80 kilos per hectolitre.

The Rosario Exchange, or Bolsa De Comercio, is in a similar condition to that of the Bolsa De Comercio at Buenos Aires. Like its namesake at Buenos Aires, it assumes control over grain, stocks, real estate and gold, and as a matter of fact there is very little trade of any kind carried on on its floor. Its session starts at 1 p. m. and continues for about an hour. The members use the exchange almost solely as a meeting place, all trades being made

in offices as the result of personal visits of buyers to brokers, or of brokers to buyers.

The other Exchange of Buenos Aires, the Bolsa De Cereals, de Once de Septiembre is, in influence on the local market and the grain trade of the Argentina, by far the most important of the Argentine exchanges. It has a large membership (1,200), consisting of local buyers for local mills as well as export buyers and brokers' clerks, and producers of grain. Memberships are cheap, worth about \$50 gold. While this exchange deals with cereals exclusively and has made intelligent effort to systematize trade customs and rules, reducing them to written form, local conditions and the rivalry of the Camara De Cereals of the Bolsa de Comercio has hampered its growth. A grain merchant must practically belong to both exchanges to do business on either, and yet need not belong to any of the exchanges in order to carry on his business. On the Bolsa de Cereals samples of grain are exhibited during the exchange hours from 9 to 11 a. m., and buyers meet sellers there and the trades are made on the floor of the exchange, the written contracts being exchanged later in brokers' and buyers' offices.

This exchange is a practical working body, has a fine exchange building and cereal museum in connection, an excellent and able corps of officials, and has codified the grain trade rules, in so far as custom has become a rule in Argentina. About thirty-five local mill buyers and fifteen or twenty buyers for export are on this market each day, and as most of the members of this exchange are also members of the Bolsa de Comercio or general exchange mentioned previously, many of the deals (particularly those in large lots of grain for export) are started on the Bolsa de Once de Septiembre in the morning and completed on the Bolsa de Comercio in the afternoon. The trade contracts of both exchanges are similar in form, and there is great rivalry between them. The location of the Bolsa de Septiembre is against it, however, but it would seem to an outside observer that Argentina's grain trade is important enough to justify the existence of a separate exchange. Consequently the removal of this exchange nearer to the Banking district would help it to secure complete control of grain transactions. As a general rule the grain broker in these exchanges occupies a position very different to what he does in the markets of other countries. The grain commission merchant in Argentina has no responsibility unless he is paid extra for assuming responsibility. The general practice in handling grain on the Buenos Aires Exchanges and the Rosario exchange may be described thus:

The broker is advised by his client in the country, who may be a farmer or a country merchant, that he has a certain number of tons of wheat for sale, and upon receipt of a sample, he exhibits it upon the exchange. When an agreement as to price and terms of delivery is reached with some buyer, either the broker or the buyer fills out a contract of purchase and sale in duplicate. The buyer signs the one contract, and the other is sent to the owner of the grain for his signature. The buyer must, therefore, be familiar with the financial standing and commercial reputation of the man

who sells the grain, so that he can avoid the possibility of losses on defaulted contracts. For his services as agent the broker receives a commission of 1 per cent of the selling price of the grain. As a rule the owner of the grain pays one-half of the commission and the buyer the other half, but in cases where the buyer has fears that the seller will default on the contract the broker will generally accept the responsibility and guarantee delivery for an additional commission of 1 per cent to be paid by the buyer, and not infrequently he exacts from the seller an additional 1 per cent. Thus in many cases the whole commission charge amounts to 3 per cent. And in case of default by the seller of the grain, the buyer must exhaust all legal measures against the seller before he can institute legal proceedings against the broker on his guarantee. Grain is sold for various future deliveries, and in such cases is sold according to a type sample which is made up by the Exchange at the beginning of the movement of each new crop; sales for future deliveries being based on type sample contain provisions for discounts for grain inferior to type sample, and for premiums for grain superior to type sample. There is no general speculative trade because of the narrowness of these markets, but a growing speculative tendency is noted in flax particularly. When grain is ready for shipment as the result of a previous sale made upon the terms outlined above, the buyer is notified, and he, according to provisions in the contract already made, either sends to the country point of shipment or to the point of destination a private inspector known as the "recibidore." This man samples each sack, and thus takes an average sample of the whole lot, and upon this sample final settlements are made. It will thus be seen that the seller wants the receiving inspector (recibidore) to work under his supervision. Consequently this inspection, such as it is, is mostly done at country points, and it is a general custom to do the weighing at the same time and place. Scales can be bought in the open market in Argentina, but the weights for the scales must be purchased from the government and must have the government stamp.

An effort has been made within the last year to establish a separate grain exchange in Rosario, but jealousy among grain dealers made the new exchange a failure for the time being, at least.

Practically all of the Rosario buyers are representing the same buyers in Buenos Aires, or rather the foreign grain firms who are the export buyers will have agents in both markets. As a matter of fact, there is very little of a local market in Argentina, the buyers for export receiving their cables each morning from Europe, and while these buyers may compete with each other, all are out of the market when it is off on export basis. English or Continental markets therefore rule Argentina markets, for the local milling demand is only at rare times strong enough to cause an independent movement of Argentina grain values. The Chicago markets are cabled to Buenos Aires twice each day, but affect that market only as Chicago changes are reflected in foreign consuming markets, although Chicago market movements largely influence the amount of offerings.

There is no hedging business from Argentina direct, transacted in Chicago, for the export grain business of Argentina is controlled by English, German and French firms. Reports of daily purchases are cabled to the head offices of these firms and the hedges are placed from Europe.

FINANCE.—The fact that the "Almacenero, or country merchant who buys the grain, is largely financed by his wholesale house, who furnishes him supplies, and this wholesale house is largely dependent on foreign credit, makes the Argentine grain trade largely a problem of finance, for the same groups of capitalists who are financing foreign banks in Argentina finance through these banks in Europe, the grain business of Argentina. An understanding of this condition will indicate that the American country and terminal elevator will one day be introduced into Argentina, but until the producer of grain is free to sell his grain to the highest bidder, regardless of other considerations, an American investment in the Argentina country grain trade would not be profitable, because of the large capital necessary to insure success. Should Argentina be blessed with good crops for a period of five or more years it is likely that the outlook for the profitable application of American methods in Argentina's grain trade will be brighter than it now is, for with an even competitive chance the savings of wastes that could be inaugurated by expert American grain men would alone pay handsome dividends on investments. All of the railways of Argentina are anxious for the development of the grain business on their lines; all railway managers assured the writer that the transportation of grain in bulk was what they were aiming at, but since the rates on bulk grain are no lower than on sacked grain the development of this method of grain transportation is practically nil.

INSPECTION OF GRAIN.

There is no official inspection of grain in any exchange in Argentina. Type samples are made up at the beginning of each crop movement, and trades are based upon these type samples, with varying discounts and premiums according to quality, but as has been indicated by a glance at the methods of handling the grain, the inspection in vogue is really a private personal inspection. There is, therefore, no grading of grain, the market quotation posted being the value of the ruling standard sample. Mr. Russel Smith has inaugurated a private bureau of inspection, and he furnishes inspectors to buyers or sellers at any point of shipment, charging fees for the service rendered. His inspection, while excellent and reliable, is not final except by agreement between parties to a trade, and it corresponds to the private sampler's inspection in our markets. Mr. Smith and a Mr. Goodwin who preceded him have made strenuous efforts to establish some official system of inspection, either "exchange" or governmental," but so far the effort has met with little encouragement. In the main it appears that the buyers of the grain do not care for any official inspection system, preferring the present method of private inspection for obvious reasons.

BANKING.

Most of the banks in Argentina are foreign and all are prosperous. In addition to the banks owned by foreign capital, there is the Argentine National Bank, and various banks owned by local capital, as well as a number of trust companies. In general the banking facilities of Argentina are excellent, and as a result of the good crops and the prosperous condition of the country interest rates on gilt edged commercial paper have ruled as low as $4\frac{3}{4}$ per cent during the last six months against the previously normal rates of 7 to 10 per cent. In the absence of definite figures the foreign banking investments are in their order of importance as follows: English, German, Italian, Spanish, French. There are no American banks, but the rapid increase of American trade with Argentina and the excellent market which Argentina offers for the manufacturers of the United States (as soon as these manufacturers follow the lead of European competitors and make and pack their goods to suit the Argentine customer) will necessitate American banks in the future.

The banking business at present is not intimately connected with the grain business, in Argentina. Most of the large grain exporting firms have their head offices in European financial centers, and the credits are arranged there between the heads of the banks and the heads of the exporting firms. The use of warehouse certificates is rare in Argentina, for the reasons given above, as well as because of lack of warehousing of grain, and absence of inspection. As a general rule it may be stated that warehouse warrants are in use only as evidence of good faith, that loans are made upon general credits, the warehouse warrants only appearing as corroborative collateral, not as real collateral, nor are they negotiable in any sense.

The fact that most bank managers in Argentina have their latitude of action very much restricted by the necessity of conferring with the home Directory by cablegram, over important loans, hampers these managers very much, but the active competition, particularly between the Germans and the English, in Argentina's commercial life, is gradually tending toward the point where the resident manager of these institutions will of necessity be given absolute freedom of action and final decision on all loans.

PRINCIPAL SHIPPING PORTS.

The principal shipping port of Argentina is of course Buenos Aires, the capital, because of its location on the Plate River, practically on the seaboard; its fine system of docks, and its prominence as a railway center. In the grain trade, however, Rosario follows it closely, but the presence of two or three mud or sand bars in the Parana River between Buenos Aires and Rosario makes it difficult to load deep draught ocean vessels at Rosario to their full draught. Consequently it is the general practice, except during periods of high water, to load grain vessels to the draught allowed by the intervening bars, and then finish out the cargo at Buenos Aires. There are a number of other ports of minor importance. The following table giving the grain shipments from Argentina during 1903 will indicate the relative importance of each port:

TOTAL SHIPMENTS OF WHEAT, CORN AND FLAX FROM VARIOUS ARGENTINE PORTS IN 1903.

Buenos Aires	1,786,000 tons.
Rosario	1,780,000 "
San Nicholas	428,000 "
Bahia Blanca	368,500 "
Villa Constitution	313,000 "
Sante Fe	123,000 "
La Plata	88,500 "

Bahia Blanca is a port that is confidently believed in Argentina will one day rival Buenos Aires. There is an excellent harbor there. The government naval headquarters are located near Bahia Blanca and some very fine and extensive engineering works, such as docks and dry docks, are in process of construction. The Bahia Blanca and Northwestern Railway and the Southern Railway have spent large sums of money at Bahia Blanca constructing large port works, docks, piers, etc., and paying considerable attention to mechanical systems for the rapid and economical handling of sacked grain. These systems may be described as an elaborate system of conveyor belts. These belts run up an inclined way. The bagged grain is thrown upon the belt, carried up and delivered to chutes and the bags slide down into the hold of the waiting vessels. Bahia Blanca is troubled much with winds. The wind blows almost incessantly and as it is laden with fine sandy dust its effect upon machinery is very marked and very troublesome.

Great sums of money have been wasted in the construction of an elaborate system of docks at the port of La Plata in the effort to make a commercial center of that place, but these artificial efforts to create a commercial port have been a complete failure, for because of its proximity to Buenos Aires, it has suffered much from the commercial rivalry with the

metropolis, and the local business tributary to La Plata never was and possibly never will be great enough to justify even a portion of the great expenditures that have been made.

At Rosario a very elaborate system of docks and port works is in process of construction. A French syndicate has secured a concession from the Argentine government which provides for the ultimate expenditure of some 12 or 15 millions of dollars upon docks, etc., and the concessionaires are allowed a regulated tax upon all imports and exports through the port of Rosario. The concession not only covers the immediate port of Rosario, but no free shipping is allowed for a considerable distance from Rosario in either direction along the Parana River during the life of the concession, forty years. The Rosario port as an export port has natural advantages that cannot be improved upon, as the method of grain shipping indicates. Consequently the immense scheme outlined above seems largely unnecessary.

In the Province of Buenos Aires an immense plan of canalization has recently been adopted. The theory is that the construction of a large system of interior canals will not only reclaim large quantities of excellent land now subject to inundation, but will form an easy and economical means for the transportation of the products of these lands.

There is some irrigation in Argentina, particularly in the northwestern part; also in the southern district west of Bahia Blanca near the Colorado River. There is a governmental School of Irrigation at the city of Bellville.

OCEAN FREIGHTS AND INSURANCE.

The ordinary ocean freight charge from Argentine ports to Liverpool or to the principal European ports, is about 14 shillings, about \$3.35 a ton, or about 9 cents a bushel on wheat. Freights have been known to be as low as nothing, or less than nothing, and as high as 20 shillings. In one rare instance vessels paid grain shippers 2½ shillings, or about 75 cents a ton for grain cargo as ballast. Ocean rates are of course governed by the movement of grain and the supply of ocean tonnage available. As a general rule the rate is in the neighborhood of 14 shillings for transportation to Europe, with stops at the island of St. Vincent for orders. The grain may be sold after the ship leaves the Argentine port while it is enroute to St. Vincent, in which case the captain of the vessel will receive at St. Vincent orders by cable telling him what port he shall proceed to. As a general rule, on vessels routed to destination direct, avoiding the stop at St. Vincent, a reduction of ½ shilling a ton is made in the freight charge. The voyage from Argentina to the European continent as a general rule consumes about thirty days in steamers and of course relatively longer in sailing vessels.

DESPATCH MONEY.—A large item of profit in the Argentine grain business is Despatch money. All cargo vessels have an established rate of loading per day. That is, after the vessel gets to its berth ready for loading, a certain amount of cargo is supposed to be put on board each day by the party chartering the boat or engaging the freight room. This amount is generally about 200 tons per day, exclusive of Sundays and holidays; so that a boat of 4,000-tons capacity, is allowed twenty days for loading. If the vessel is loaded in less time the owners pay to the shipper a bonus of \$50 gold for each day, inclusive of Sundays and holidays, that is thus saved. Consequently rapid loading is very profitable to the grain shipper. In fact, dispatch money forms no inconsiderable item of the Argentine exporter's profits. Insurance rates on cargoes vary according to the steamer and destination, but in a general way may be safely figured at about ½ to ⅝ of 1 per cent of cargo value.

Specific insurance on grain alone in warehouse varies according to local conditions, but is about ⅜ per cent. General floating insurance covering elevator and galpon buildings and contents, about 2½ per cent, liability limited to 50 per cent of values.

WEATHER AND CROP REPORTS.

The Argentine government has a very excellent weather bureau in charge of a former American. The bureau is modeled closely upon the United States bureau. A daily weather map similar to that of the United States is issued by the weather bureau, and as the area of the country is

relatively smaller the reports of temperatures and rainfalls are more complete and detailed than the United States weather maps. The Argentine map is printed each morning and gives the weather for the preceding twenty-four hours. These weather maps do not reach the outlying districts or cities until the next day, so the grain trade places much of its dependence on reports of rainfall which are issued each morning by the most important railways. These reports are the result of measurements of precipitation made by each railway station agent, telegraphed to the railway headquarters, and while they are reliable, yet their time of posting is not at all regular, and if pressure of business intervenes to prevent, the railways occasionally neglect to issue them.

In this matter, a peculiar condition exists in the Argentine grain trade. Grain dealers on the Rosario Exchange care little for weather conditions ruling in the territory that is tributary only to the Buenos Aires market, while those on the Buenos Aires Exchange are only mildly interested in the crop news concerning territory tributary only to the Rosario markets. In other words, most Argentine grain men are interested only in the conditions that affect grain which is likely to be handled by them. The cabled reports of the Argentine weather and crop conditions which are received by the exchanges in the United States are made up from the Argentine governmental weather map each day. They consist of an averaging of the rainfall and temperatures ruling in the grain district for the previous day. These reports are excellent, complete and may be depended upon as being as accurate, as it is possible to make a report that is necessarily condensed.

LOCUSTS.—Owing to the great destruction of crops in previous years by locusts the Argentine government has established a bureau to take charge of the suppression of this pest. The Argentine locust in its ravages is similar to the Kansas grasshopper, except that the locust has even a more voracious appetite. When a cloud of locusts settle on a farmer's homestead they eat every living vegetable, even eating the bark off trees. Their path is marked by desolation and their work is that of a living fire.

A vast amount of money has been spent in experiments and in practical measures of extermination, and the results have been gratifying to the department, for the damage by locusts has been confined to small districts within the last few years. Whether the destructive measures are responsible for the absence of clouds of locusts of late years, or whether the relief from this scourge is due only to a temporary cessation of activity by the insect itself, time alone will tell. The work of the Argentine bureau for the suppression of locusts has received much commendation, and deservedly so, for it can be readily understood how the conditions in Argentina make organized efforts to stamp out a pest such as this very much more difficult than in older or better settled countries.

GENERAL COMMERCIAL CONDITIONS.

Argentina has had several good crops of grain in succession, live stock values have been good, and business is good. There is probably no country on earth where the crop conditions are so quickly reflected in business affairs, because of the absolute dependence on good crops. Poor crops invariably bring business failures because of the way in which business is carried on, the country storekeeper being dependent on the crops for payment of his bills, wholesale houses are dependent on these same crops because they finance the storekeeper to a large extent. The result is that failure of crops means a general inability to meet obligations. For that reason also almost every one in Argentine has a marked tendency to enlarge upon the excellent crop conditions at all times, and it is very difficult to find any one who at any time will admit crop damage of any consequence, for such an admission would have the effect of restricting credits generally.

The commercial enterprises of Argentina have not received fair treatment from the government. The taxation to which most commercial ventures are subjected to is annoying as well as costly. It is impossible to list the various taxes, because the taxes vary greatly in the different provinces, but in general it may be stated that all personal property pays a tax. A tax is levied on each farm wagon (\$25 for 2-wheeled, \$50 for 4-wheeled) or vehicle using the public roads, various food products pay various taxes in the different provinces, commercial travelers must have licenses for the separate provinces. In fact, the license system is pursued to a fine point. All commercial records or bookkeeping must be in accord with various governmental regulations. Ledgers and letter-press books must be stamped with the "Rubrica," a government stamp, or they are not admissible in evidence in a court of law. These various hampering regulations add much to the costs of transacting business in Argentina, and the commercial life of Argentina feels that commerce bears more than its due share of the expenses of government. Land is mostly owned by native Argentines. Natives are also the members of the Legislature, and the native Argentine, like most of humanity, is perfectly willing to increase taxes that some one else has to pay. Consequently the rate of taxation upon land is extremely low, for the native owns the land, while the taxes upon commerce are high, for that is the most feasible method of insuring that the foreigner pays his share or more than his share of the expenses.

As an instance, one flour mill in Argentina with a maximum capacity of 500 barrels of flour a day pays a total tax of about \$3,500 gold a year. Argentina's development would be facilitated very much if the lands, instead of commercial improvements, paid a larger proportion of tax, for it would not then be so easy to hold large tracts of land for speculative purposes.

The government of Argentina is republican. Its constitution and form of government are modelled upon that of the United States in most important particulars. The official language is Spanish, and outside of the larger cities a knowledge of the Spanish language is an absolute necessity for the

visitor to Argentina. All business is carried on in Spanish, but the native Argentine is a wonderful linguist. The facility of languages and the wonderful knowledge of various languages which the educated Argentine possesses is one of the points which is most striking to the casual visitor. The languages most in use are Spanish, Italian, French, English, German and Portuguese, and it is not at all unusual to find young business men who speak all of these languages. Most business men in Argentina speak two or three languages and many speak four or five. This is markedly true of Buenos Aires, the capital, a city of very nearly one million people. This city is clean and well kept, has excellently paved streets, is very beautiful from an architectural point of view, and for brilliancy and fashion well deserves its appellation, the "Paris of South America." Most of the wealthy people of Argentina live in Buenos Aires.

There is a public school system in Argentina and a number of colleges and universities, though the public school system does not by any means furnish adequate school facilities for the rural districts.

TELEGRAPHS.—There are about 29,500 miles of telegraph line in Argentina. Of this mileage about 16,700 miles are owned and operated by the National and Provincial governments of Argentina; about 10,000 miles are owned and operated by railways, and the remainder consists of various private telegraph systems. Most telegraph offices are located in postoffices and the rates are about the same as rule in this country. Messages can be transmitted in foreign languages, generally English, French or German, but the tariff for such messages is double the ordinary tariff for messages filed in the Spanish language. The cost of cabling to the United States from Buenos Aires is about \$1.05 gold per word, including address and signature.

MANUFACTURING.—There is little manufacturing in Argentina. In fact, the marked inaptitude of the native for mechanics is surprising. The Argentine colonists will buy a binder or some other piece of farm machinery and run it till it falls apart without even tightening up a bolt, although when breaks occur he will mend the break with wire. The Argentine can work wonders with wire or with rawhide strips. Some of the repairs which he makes in this matter are astonishing to the machinery experts who look after such matters for the American manufacturers of farm machinery during the harvest season.

COAL.—There is some coal in Argentina, but it is of poor quality. It is found in the interior of the country and transportation costs are high, so that most of the coal consumed there is imported from Wales. The costs of running a steam engine are, therefore, higher than in the United States because of the higher cost of coal. Gasoline engines are not in general use because of the high cost of gasoline, about \$1 gold a gallon. Gasoline must be carried as deck cargo on board steamships, and the care it requires under tropical skies makes freight rates high enough to produce this high price at destination. There are no working oil refineries in South America.

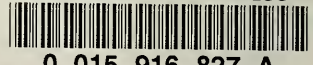
CONCLUSIONS.

From a careful, though brief, study of conditions in Argentina the conviction of the writer is that the increase of the grain production of Argentina will be more gradual hereafter than it has been in the past, and will very likely for a number of years bear a certain positive relation to the net total immigration to Argentina, for it appears that Argentina is now producing practically all the grain that it is possible for the population to produce. That Argentina can produce wheat and corn at less cost than they can be produced in the United States is true, for the mild climate allows farm work to be carried on all the year around, but this advantage is more than equalized by the waste and lack of system in farming operations and grain handling.

That Argentina is essentially and naturally a stock-raising country is also true, and the advantage which that country has over the United States in the costs of producing meats is far greater than its advantages in cereal production, for the vast areas of cheap lands well suited for grazing herds make stock-raising very profitable at prices very much lower than rule in this country.

Argentina offers an excellent market for American manufactures now, and will be a better one in the future, the present absence of frequent and quick ocean service helping to place American manufacturers at a disadvantage in their competition with English and German manufacturers. That Argentina is a country of vast resources and vast possibilities is true, but that these resources will be developed very slowly until commercial activity meets with more practical methods of encouragement from the government is equally certain. The fact that Argentina is developing in spite of the various subtle and active restricting influences is the best indication that proper methods would produce more wonderful results. The tendency of the native Argentine to send his children to the United States to school is one of the most hopeful signs for the commercial and political future of that country.

MAY 28 1904



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