

MEXICO - WHERE HEADED

A few months ago I made one of my periodic trips into the interior of Mexico. For some three weeks I rode on horseback through a region known as the Mixteca Alta and located in the high sierras of the states of Guerrero and Oaxaca. In all I visited over 21 villages on this trip and was able to make rather careful observations of social and economic conditions. I can find no better introduction or text for this lecture than a few items selected from my field notes:

Wednesday May 20: Our second stop was at 3:30 P.M. Quihuítlazala (rain-on-all-sides). This was a village of some 440 inhabitants of which three spoke Spanish and the rest Mixtec. The community, as have practically all of those through which we have been passing, has suffered severely for the past 18 months from small-pox. Last year there were 50 deaths (i.e. over 11% of the population) from this cause alone. At present the community has no school.....

Thursday May 21: We stopped for lunch in a flea-bitten and flea-biting little place called Mixtecapa (place of the Mixtecs). The most that could be found to eat, after combing the village, was a few hard-boiled eggs and some leathery tortillas.

Three hours more brought us to Paraje Montero (mountain-stop). This place which consists of about fifty houses perched on the side of the mountain slope is one of the poorest and most God-forsaken which we have struck on

the whole trip. The people are dirty and ragged and evidently in the most abject poverty. It has taken two and a half hours to find a few eggs for us to eat. There is no coffee, chocolate, milk, sugar, or meat in the whole village. ... There is not even any food for the horses, except a handful of corn. The food problem for both man and beast in this entire area is a very serious one. The Government recently suppressed one of the mail routes through this region because it was impossible for the mail carrier to find anything to eat in the villages along his route.

Thursday May 28: ... Sanitary conditions in this village (Silacayoapan) are a little worse than usual due to its somewhat larger population. The only water supply for some 5,000 people is a single fountain in the plaza, and a muddy little stream that runs near the edge of the town. All day long there is a constant procession of individuals of all ages and sorts dipping water from the fountain and carrying it away in large earthenware pots or five gallon oil cans balanced on the two ends of a pole. There is no doctor here and small-pox and typhoid are endemic.

Saturday May 30: An interesting index of the extent to which modern civilization has invaded the region through which we have been passing is the fact that last night was the first time since we left Chilpancingo that we have seen a wheeled vehicle of any sort or description -- and that was an old Chevrolet truck ^{which} ~~that~~ wouldn't run! In other words, every object of any sort which must be moved

from one place to another must perforce be transported either on mule back, horseback or the back of some human being. There are not even any wheelbarrows. The wheel and mechanical power - the bases of modern industrial civilization - do not yet exist for the Mixteca Alta. ... But already the modern world is knocking at the gates. The net-work of roads which the Government is slowly spreading over the Republic are beginning to have their effect. The first automobile actually running which we have seen in almost three weeks was a truck which we encountered this morning bumping along in some miraculous fashion over unbelievable roads -- and it was loaded with machinery!

I have presented these few observations and facts about certain villages in the states of Guerrero and Oaxaca by way of illustration because they happen to be fresh in my mind. I do not wish to leave you with the impression that the picture of rural life in all of Mexico is as dark as the one which I have just sketched for you. Nor do I offer the Mixteca Alta as necessarily a typical cross cut of Mexico. As I have already pointed out, it is possible to find in Mexico every level of economic and social conditions from those of the Seri Indians off the coast of Sonora who are reported to be as primitive as any group now living on this continent to those of Mexico City, which presents all the aspects of modern civilization and culture common to the rest of the Western world.

However, I do not believe that I am mistaken in say-

ing that in a very real sense the questions of public health, communications, education, and economic organization in the Mixteca Alta are a fair sample of the problems with which, to a greater or less degree, all of rural Mexico, and to some extent urban Mexico is faced.

In other words, if I may be allowed to summarize and state in general and conceptual terms the concrete facts which I have given you, I would say that the Mixteca Alta presents to the Mexican government two fundamental problems: on the one hand it is a problem in cultural integration and on the other it is a problem in economic efficiency.

Now the point which I wish to make is: these are precisely the basic and fundamental problems which confront the Mexican nation as a whole. The future of Mexico will depend upon the ability of the Mexican people to find an adequate answer to two questions:

(1) How to mold and shape a number of geographically, racially and culturally disparate and comparatively unrelated groups into a homogeneous, self-conscious community sharing a common heritage, working for common ends and aspiring to common ideals?

(2) How to increase the economic efficiency of a nation the majority of whose population still live in the pre-machine and pre-power age with a standard of living little more than the minimum of subsistence?

CULTURAL
HETERO-
GENEITY

In a previous lecture I have already dwelt at some length on the subject of Mexico's cultural heterogeneity. I have pointed out to you the significance of Mexico's geograph-

ical diversity: in the first place how the widely different conditions of life in the tropics and in the colder uplands, in the northern deserts and on the southern and eastern mountain slopes, have through the ages made entirely different demands upon the inhabitants and how thus there have grown up in these various regions institutions, folkways, habits of life -- in short, cultures -- which represent as great variations as the regions in which they are found; and, in the second place, how the mountain ranges which cross the country in every direction have acted as highly effective barriers to social communication and thus to the socially differentiating demands of diverse environmental conditions have added the culturally solidifying force of isolation. I have pointed out how Mexico by virtue of the survival of the many indigenous languages and other cultural traits is not one but many countries - a land compounded of a large number of widely dissimilar folk-communities differing from one another in racial characteristics, traditions, customs, and habits of thought.

The problem of cultural integration in Mexico, should now be clear without the necessity of adducing more evidence or offering further illustration: How shall Mexico achieve unity out of disunity? How shall Mexico remove the barriers of isolation? How shall Mexico break up, modify and assimilate her undigested cultural "lumps" into the body politic? How shall Mexico, preserving the good in her indigenous culture and maintaining that variety which spices life, yet somehow release in the hearts of the whole people that current of common sympathy and mutual understanding which is the hall mark of true nationhood?

ECONOMIC EFFICIENCY

I have said that the second fundamental problem facing the Mexican people is that of increasing and extending the economic efficiency of the nation. For convenience we may divide the discussion of this question into two parts: (a) the standard of living and (b) what, for lack of a better term, I will call "technological competence."

Recently one of the leading newspapers in Mexico City published a cartoon in which a professor is shown examining a student. Under the cartoon were placed these words:

"How many states does the Mexican Republic have?"

"Two."

"Two?"

"Yes, sir: Hunger and revolution."

In attempting to give you some idea of the standard of living in present day Mexico I am badly hampered by the fact that no adequate and thoroughgoing studies of wages or cost of living have been made. There is probably enough data available, however, to support a few generalizations in this field.

WAGES

In 1928 the Department of Labor attempted to estimate on the basis of statistics gathered in various states the daily wage necessary for what was called a "Minimum of Comfort Standard of Living" i.e. the wage which theoretically a "typical laborer's family of five members" should receive in order to satisfy the minimum requirements of health and decency.

For this typical family the theoretical daily wage necessary for a minimum of comfort standard of living varied

from 2.90 pesos in the state of Chiapas to 3.45 pesos in the state of Yucatán. An examination of the individual items in the summary schedules, however, indicates that "minimum of subsistence" would probably be a better term to designate the standard of living possible to maintain on the basis of the estimated daily wage than the phrase used. In the schedule for laboring families only 16.50 pesos, for example, per month is allowed for rent and no provision whatsoever is made for such things as health, amusement, savings, education, furniture, etc.

Yet despite these low estimates of the income necessary for a "minimum standard of comfort", with few exceptions, actual wages received in Mexico at the present time fall far short of the theoretically desirable level. The actual wages paid in 1926 to agricultural laborers, for example, varied from 60 centavos in such states as Zacatecas, San Luis Potosí and Guanajuato to 3.60 pesos in northern Lower California. The average agricultural wage in all states was 1.14 pesos per day. Agricultural laborers and their families, you must remember, represent the vast majority of workers in Mexico. Compare these figures for actual wages received by agricultural laborers with the ones which I have just given you for the theoretically minimum standard of living income for this class of workers and you can draw your own conclusions and point your own morals. The average income of agricultural laborers throughout the Republic fall short by more than 57% of reaching the lowest theoretically desirable income in any state. These statistics give us some idea of the situation of the agricul-

tural worker in Mexico. Similar figures could be given to show that the lot of other classes of workers is little better.

FOOD CONSUMPTION

Studies of food consumption by various classes of workers in Mexico bear out in striking fashion the conclusions implicit in the statistics of wages and income. Two investigations, for example, made by the Department of National Statistics in this field show conclusively that the vast majority of the families canvassed were definitely undernourished and unable with the wages and salaries which they received to meet the ordinary requirements of health.

In one of these studies an effort was made to set up theoretical standards of the number of calories "indispensable for the maintenance of life" in average families for various classes of the working population. Using these standards as a base (i.e. equal to 100) index numbers were calculated for the actual number of calories consumed by families in each of the several different classes of workers in question. Following this procedure it was found in the state of Mexico, for example, that certain classes of public employees had an index number of actual caloric consumption of 85; private employees of a similar class 88; skilled laborers varied from 92 for bricklayers to 70 for shoemakers; while unskilled laborers ranged from 77 for agricultural workers to 54 for mine workers.

I do not feel that these brief summaries which I have given you of a few admittedly incomplete studies should be taken as final proof that a large part of the population is condemned by present wage scales in Mexico to an existence

which falls far short of offering even the minimum desiderata of health and well being, but taken at their face value they seem to indicate that this may be the case. Certainly it is true that other types of evidence such as that drawn from observation of life anywhere outside of the more prosperous sections of the larger cities or that which may be derived from a study of the statistics of public health in Mexico do little to disabuse one of the impression that a large part of Mexico's population lives on a level little removed from that which the economists have called a "minimum of subsistence."

How much of the blame for this situation may be charged up to the rapacity of Mexican employers and how much to the inadequate and inefficient functioning of the Mexican economic system, I do not know. I have a feeling, however, that in Mexico, as in other countries, wages and the standard of living tend to keep pace with the general prosperity of the country. I do not think it unfair to assume, therefore, that low wages and a low standard of living for a large part of the population, in part at least, are a clear indication of low productive power, an ineffective exploitation of the country's agricultural and other resources, and in general a lack of technological competence.

AGRICULTURAL
EFFICIENCY

Mexico, you will recall, is primarily an agricultural country. Seventy-five percent of the people live and have their being outside of the cities, and of the total rural population of more than 10,500,000 individuals, about 70%, or well over 7,000,000 live in communities of less than 1,000

inhabitants. Mexico's very life blood comes from the soil. As at present organized, therefore, Mexico as an economic entity must be judged primarily by its efficiency in agricultural production. Is there any way in which that efficiency can be tested?

CORN

Perhaps a few statistics will throw some light on the subject. Take the matter of corn, which is the basic item in the Mexican diet and the principal Mexican crop. Mexico plants each year around 7,500,000 acres of corn with a total yield of some 85,000,000 bushels, but Mexico's average yield per acre is a little more than 11 bushels, whereas the average yield per acre, for example, in Canada is around 44 bushels, that of the United States 27 bushels, of Brazil 25 bushels and of Argentina 26 bushels. Of all the principal corn producing countries in the world Mexico ranks the lowest in the efficiency of its per acre production!

WHEAT

What is true of Mexico's efficiency in producing corn is also true with regard to wheat. Wheat is the third most important crop in Mexico from the point of view of the number of acres planted. Up until the last three years Mexico has planted each year about 2,000,000 acres of wheat. During the five year period from 1921 to 1926 the average yield per acre of wheat in Mexico was 5 bushels. The only other country in the world showing as low a yield per acre for this period was Tunis. While Mexico was producing 5 bushels per acre, Canada produced 16 bushels, Germany 27 bushels, and Denmark 44 bushels -- to mention only a few countries by way of comparison.

Now I am perfectly well aware of the fact that by

selecting only two of Mexico's crops for consideration here I am presenting a somewhat lop-sided picture. In certain commercial crops such as cotton and tobacco, Mexico's yield per acre compares favorably with that of any other country; in the last few years even the yield per acre of wheat has risen somewhat. But, admitting this, I still believe that the figures which I have presented to you with respect to two of Mexico's principal crops are highly significant.

IMPORTS

But before we draw any conclusions let us look at a few more figures. Mexico, I have said, is primarily an agricultural country, the vast majority of the people are dedicated to agricultural pursuits and the value of agricultural products outweighs many times the values of all other products combined. And yet:

During the five year period 1925-29 Mexico imported on the average 44,400,000 kilograms or about 3,400,000 pesos of corn each year.

Mexico regularly imports every year around 16,000,000 pesos worth of lard and lard compounds.

Mexico imports on the average 6,700,000 pesos worth of wheat and 2,600,000 pesos worth of wheat flour annually.

Mexico imports yearly 3,800,000 pesos worth of conserved animal products and 1,600,000 pesos worth of eggs.

And these are only a few of the items which go to make up the grand total of almost 90,500,000 pesos of live-stock and animal and vegetable products which Mexico imports each year.

Now what do these figures mean? In the first place, I believe, to put it mildly, they raise serious questions concerning the productive efficiency of the present system of Mexican agricultural exploitation. There is something wrong somewhere when a primarily agricultural country must import every year millions of pesos worth of corn, wheat, lard, and eggs in order to keep its population from starving.

EXPORTS

But doesn't Mexico export any farm products? Yes, Mexico exports around 165,500,000 pesos a year worth of coffee, henequen, cotton, bananas, cattle and other animal and vegetable products.

Then what's all the shooting about? Isn't this more than enough to pay for the corn, lard, meat, etc. which Mexico imports? Yes, but that is just the point: Mexico, an agricultural country, is using the money received from the export of its agricultural products to pay for the import of other agricultural products, which in very large part could be raised in Mexico itself. Mexico would appear to be engaged in the highly unprofitable business of spending more than 90,000,000 pesos a year, a large percent of which, given more efficient farming methods, and more effective and extensive utilization of the soil, she wouldn't have to spend. In a word: one of the principal causes operating to keep Mexico in her present unhappy economic situation is the fact that the machinery of agricultural production in Mexico is rusty and full of monkey wrenches. In the very field where theoretically we should expect Mexico to be strongest -- precisely there she shows

signs of alarming weakness.

INDUSTRY

Leaving for the moment the question of agriculture let us turn to a brief examination of the Mexican economic outlook considered from the point of view of industry and manufacturing.

An analysis of trade statistics shows clearly that Mexico is primarily an exporter of raw materials and of materials that come from extractive industries, and an importer of manufactured products. In a typical recent year (1926) the ten leading exports, in point of value, were silver, crude petroleum, lead, fuel oil, gasoline, zinc, henequen, copper, coffee and raw cotton. These ten products alone accounted for nearly 82% of the total exports. In the same year the 10 leading imports included, with two exceptions, no products other than manufactures and foodstuffs. These were in order of their importance: machinery, iron and steel, cotton manufactures, automobiles, lard, chemicals, wheat, wood for building purposes, gold and silver bullion and specie, and mineral oils. The aggregate value of these ten products alone was over 46% of Mexico's total import trade.

Last year (1930) Mexico bought from foreign countries 43,000,000 pesos worth of textile manufactures, 26,000,000 pesos worth of chemicals and drugs, 45,000,000 pesos of vehicles (mainly automobiles), and 63,000,000 pesos of machinery -- and these figures do not cover by many millions of pesos all of the manufactured products which were imported.

MINING
OIL

But what about mining and oil in Mexico? Are these not highly mechanized and modernized industries and do they not produce more than enough to pay for all the manufactured products Mexico may need or care to import? Mexico exported in 1929, for example, 335,400,000 pesos worth of mineral products and around 87,300,000 pesos worth of oil products. On the face of it this looks like Mexico was sitting on east street. Why should Mexico worry about manufactured products bought abroad when she has all this money coming in to pay her bills with?

Well, there is only one slight difficulty: Mexico didn't get 335,000,000 pesos for her mineral products nor did she get 87,000,000 pesos for her oil. And this for the simple reason that it was not Mexico who sold these products in 1929 -- or for that matter in any other year.

The mining and oil industries are in Mexico but they are not entirely of Mexico. Generally speaking, and with few exceptions, Mexico's mines and oil wells are owned and operated by foreigners. The exports and sales of mineral and oil products pay government taxes, and for imported machinery, equipment and supplies used in the industries, and through drafts drawn to pay for wages, salaries and domestic supplies, they serve to cover payments due abroad for other imports, but a very considerable part of the returns go into the pockets of foreigners in the shape of interest and profits on the billion and a half pesos of foreign capital invested in these industries.

And so even in mining and oil it would appear that there is a fly in Mexico's economic ointment. Indeed, in pass-

ing I might mention that so far as these particular industries are concerned at the moment, there are several flies in the ointment.

Since 1925 the value of the production of gold and silver in Mexico has dropped from 166,100,000 pesos to 116,600,000 pesos, or about 30%, and although this loss has been offset by an increase in the value of other metals I can assure you that the mining companies are far from being happy over the present situation. Then there is also the little matter of a drop in the value of oil produced in Mexico from 365,800,000 pesos in 1921 to around 81,000,000 pesos in 1930, or about 77%.

SUMMARY

But enough of figures and statistics. Let us stop and pull the threads of this brief analysis together. I have tried to suggest, by calling your attention to a few high lights of Mexico's economic situation:

(a) That as a going economic concern Mexico, at the present time, is in a precarious position.

(b) That the basic industry, agriculture, does not function efficiently. Mexico does not produce enough food to feed its citizens adequately and is forced to import large quantities of farm products each year in order to make up the deficit.

(c) That Mexican exports of farm products are not sufficient to cover the agricultural products which she imports and at the same time pay for the manufactured articles which perforce she must buy abroad.

(d) That Mexico, unlike let us say England or Germany cannot supply the needs of her citizens for manufactured articles from local industries or export the products of such industries in payment for the things which she imports, because manufacturing is still in its infancy in Mexico.

(e) That the great extractive industries -- oil and mining only serve to a limited extent to support the Mexican economic structure due to the fact that these industries are owned by foreigners and also, due to the fact, that, for the time being at least, these industries are badly crippled.

SOLUTIONS

We now have before us a statement, together with a certain amount of supporting evidence, of what, in my opinion, are the two basic problems confronting the Mexican people today. It may appear that I have been unnecessarily diligent in digging up all the dirt and pulling out of the dark corners all of the family skeletons in Mexico's social and economic closet. In order to correct this impression, I hasten to present the other side of the picture and to devote the remainder of this lecture to giving you at least the outlines of the program of action which Mexico is working out in an attempt to solve her economic and social problems.

RURAL SCHOOLS

In any review of Mexico's struggle during the last decade to deal with what I have called the problems of cultural integration and economic efficiency first place must be given to the heroic efforts of the federal government to create an educational system adequate to the needs of the country. In

1921 when the federal government initiated its nation-wide educational campaign, Mexico was faced with an educational crisis. The thirty years dictatorship of Díaz was, to say the least, not distinguished for its achievements in education, and during the years of revolution and social disorder following the downfall of the regime, the whole school system was completely disorganized. In the larger cities, schools continued to operate after a fashion, but in the vast rural districts of Mexico hardly an educational institution was to be found.

In the face of this situation the federal government very wisely decided to direct its first efforts to establishing educational centers where they were most needed - in the long neglected rural communities. Starting practically from "scratch", in ten years the federal government established 6,401 federal rural schools with a total enrollment of 458,569 students and manned by 7,454 teachers. This is an achievement of which any nation might well be proud; for a nation laboring under the economic difficulties which have beset Mexico during the last decade, it is an achievement the significance of which cannot be overemphasized.

The program which is being followed in the rural schools which now dot the land from one end to the other is admirably adapted to the educational needs of the agrarian communities. Departing from the traditional three "R's", the authorities have placed the emphasis in the four year course upon teaching the children (and through them their parents) those things which will serve immediately to increase produc-

tivity and raise the standard of living. Accordingly, each school is equipped with a small plot of ground. Courses in farming, gardening, the care of chickens and rabbits, and courses in weaving, tanning, pottery-making, the preservation of fruits and vegetables, and carpentry bulk quite as large in the curriculum as reading, writing and arithmetic. Night classes are held for adults and every effort is put forth to make the school the center of the community life.

In all the activities of the rural school the principle of "acción" is enforced. This means that the students are encouraged to "learn by doing" rather than relying as in the past upon books and the words of the teacher for the sources of their knowledge. No opportunity is neglected to propagate the spirit of nationalism and group unity. The Indians are being taught to speak Spanish, and the national anthem may be heard in little mountain villages where, before the coming of the school, it is doubtful if even the meaning of the word "Mexico" was known. The states are following in the footsteps of the federal government and the last census reports the existence of over 5000 state supported rural schools.

TEACHER TRAINING

In order to train teachers for the rural schools, besides establishing a series of regional normal schools (there are 20 of these now with a total enrollment of 2,972 students), the federal government has devised a most ingenious system of movable teachers' institutes known as "Cultural Missions". These so-called "Cultural Missions" consist of a group of experts in education, agriculture, social

work, small industries (weaving, carpentry, etc.) and physical culture. Fourteen such groups are now at work in the various states of the Republic. A Mission remains in a given community for three weeks. During this time, the rural teachers of that district receive intensive training in the theory and practice of rural education. During 1930, for example, some 85 of these rural teachers' institutes were held in 19 different states. The total budget in 1930 for Cultural Missions, including two so-called Permanent Missions or rural social service centers which have been established in the states of Hidalgo and Michoacán, was over 500,000 pesos.

AGRICULTURAL SCHOOLS

A more specialized and advanced type of education is being offered in the new federal regional agricultural schools. At the present time there are eight of these Escuelas Centrales Agrícolas located in as many states. The average total costs of these schools is estimated at about 1,000,000 pesos each. At the end of last year the enrollment in all schools averaged about 125 students per school. These institutions are open to the sons of small farmers or ejiditarios (i.e. those who live in the villages where the land is held communally). Briefly, their purpose is to furnish a means whereby the children of the peons and small landholders can be developed into intelligent, self-respecting and competent farmers. Each school has a large tract of land, is stocked with high-grade animals and equipped with modern farming and dairying machinery. The agricultural schools, next to the rural schools, represent the most important educational innovation of the post revolutionary

regime in Mexico.

Mexico's educational reawakening has not been entirely in the interest of or restricted to the rural districts. I have emphasized the rural school program because undoubtedly this is the most interesting and important aspect of the movement. As a matter of fact, experiments are being made all along the line and new schools of every type are being established. About 12% of the national budget and on the average 36% of the state budgets or around 64,000,000 pesos a year are being spent on public education at the present time. Mexico now has a total of over 9,300 schools supported by the state and municipal governments and 7,300 schools supported by the federal government. The total enrollment of students in all public schools is about 1,600,000.

These figures are eloquent testimony to the tremendous strides which Mexico has taken in the field of education. The ideal of an "educational system adequate to the needs of the country" has not yet been achieved; for 1,400,000 or approximately 55% of the children of school age in Mexico still do not have any school to go to and many of the schools which have been established are sadly lacking in equipment and properly trained teachers. But if Mexico keeps on at her present pace these figures will be reduced to a minimum in short order.

ROADS

Paralleling and supplementing the educational advance is the equally laudable progress which Mexico has made in opening up the country through the new system of national highways. When the National Highway Commission began its work

in 1925, according to one of the Commissioners, Ing. León Salinas, "the only roads in existence passable in all seasons were those from Mexico City to Toluca, from Mexico City to Cuernavaca and certain sections of the road between Cuernavaca and Acapulco -- in all hardly more than 150 kilometers (c. 90 miles) on which, due to the lack of pavement, the steep grades, and other bad conditions, traffic could be maintained only with the greatest difficulty." For a country with an area of 762,000 square miles and a population of more than 16,000,000, it would be hard to imagine a more deplorable state of affairs.

In less than six years Mexico has become "good roads conscious" with a vengeance. By the end of 1930, the federal government alone had expended more than 58,500,000 pesos on the national highway program with the result that several thousand kilometers of highways were provisionally opened to traffic, 634 kilometers (c. 380 miles) were surfaced and 621 kilometers (c. 372 miles) were paved.

HIGHWAY PROGRAM

At the present time the Commission have under construction four principal highways. The first of these is the Mexican division of the Pan-American Highway. This road is in two sections: one of approximately 770 miles runs from Nuevo Laredo to Mexico City and one of over 840 miles extends from Mexico City to the boundary line with Guatemala. Work on the Nuevo-Laredo- Mexico City section of this highway is being pushed as rapidly as possible (at the present time over 6,000 men are employed on this project alone) and it is expected that a provisional road passable in all seasons will be opened from

the border to Mexico City before the end of the year.

The second highway will connect the port of Vera Cruz on the Gulf Coast with Acapulco on the Pacific Coast. The total length of this road when completed will be around 532 miles. The Mexico City - Acapulco section is already paved as far as Cuernavaca (45 miles) and surfaced the remaining distance. On the Vera Cruz side, paving extends from Mexico City to Puebla and the rest of the road is in the process of being surfaced.

Another coast to coast highway is being built in the northern part of the Republic from Matamoras to Mazatlan. This highway will cover a distance of some 730 miles and will pass through the important cities of Monterrey, Torreon and Durango.

The fourth main trunk line highway is that connecting Mexico City with Toluca, Morelia and Guadalajara, the capital of the state of Jalisco and the second largest city in the Republic. Work on this important addition to the internal system of communications in Mexico has been prosecuted with considerable vigor during the past two years.

That Mexico's new highways are breaking down the barriers of isolation, opening up the country, increasing the mobility of the people and stimulating trade and commerce is a fact that hardly needs to be demonstrated to an American audience. I may mention in passing, however, that since the Highway Commission started its work, automobile registrations in Mexico have increased by 64%, or from 51,554 in 1925 to

84,791 in 1930. In the five year period 1926-30 gasoline consumption increased by almost 82% or from 47,500,000 to 86,300,000 gallons. Interurban bus lines are springing up as if by magic all over the country.

Many a ton of dynamite will have to be exploded and many a long mile of asphalt will have to be laid down before Mexico can claim to have even the minimum number of highways necessary for the proper development of the country. Mexico as may be seen from a comparison of her present total of around 750 miles of surfaced and paved highways with, for example, the 26,000 some odd miles of paved and surfaced highways in the state of Texas has really just started on her job of highway development. But that she has started and is sticking to her job is an indisputable fact, and a contribution of the highest order to the solution of her economic and social problems.

AGRARIAN REFORM

Mexico's educational renaissance and the good roads movement are really only aspects of a larger and more inclusive program for the social and economic rehabilitation of the Mexican people. This program has for its purpose nothing less than the complete reform of the system of land holding and the method of agricultural exploitation.

The socio-economic structure of rural Mexico is characterized by two principal types of organization. First, there is the so-called free village, usually a relatively small community of some 300 to 500 souls, in which land is held and cultivated in a communal or semi-communal fashion. Second, there is the large estate or hacienda. Here the land is owned by a

single individual or family and worked by agricultural wage laborers who either live on the estate or come from the neighboring free villages.

Without going into this history or statistics of the matter, I ask you to accept two general statements:

(1) That before the revolution of 1910, there existed in Mexico a marked inequality in the distribution of the ownership of land. As G. M. McBride has pointed out, in practically every state in the Mexican federation, from 95% to 98% of the heads of rural families owned no land whatsoever. Although over half of the rural population of Mexico in 1910 lived in free villages, they owned only a very small fraction of the agricultural lands. The other half of the rural population lived as peons - i.e. virtually as indentured serfs - on the large haciendas which embraced the vast majority of the land.

(2) That the free village and the hacienda as they existed prior to the revolution viewed as producing units were inefficient and incompetent. As Tannenbaum has shown, the free village in Mexico has been characterized by an insufficient amount of land and insufficient tools, animals and knowledge to cultivate the land which they do have. The result has been that the agriculture has for the most part been a stick and hoe agriculture with these free villages seldom seeking and almost never able to produce more than enough for the most elementary needs of their inhabitants. Completely cut off from the rest of the world, or at best with only the most difficult and inadequate means of communication, the spiritual and self-sufficiency of the free village has been matched

by its economic ~~and~~ self-dependence.

The hacienda, likewise, although for different reasons, has failed to realize its possibilities or to take advantage of its favored position in the Mexican scheme of agricultural economy. Essentially feudal in its nature, the purpose of the hacienda has been primarily to furnish a secure and safe living for its owner. Under a system of absentee ownership and indirect management almost no attempt has been made to introduce improvements in farming methods. Poorly cultivated and badly administered, the hacienda also, has tended to be conservative and self-sufficient.

LAND
DISTRI-
BUTION

The program of agrarian reform which grew out of the revolution of 1910-21 had for its primary purpose the rectification of the inequalities and injustices in the distribution of the ownership of agricultural property. Specifically, the revolutionary governments have undertaken to expropriate the land of the large haciendas and to give it to the free villages in amounts adequate to their needs. Between 1917 and 1929, over 13,000,000 acres were "restored" or "donated" to agricultural villages in the various states of the Republic. Some 600,000 ejiditarios or small farmers living in the free agricultural villages now have, depending on the grade of land, between 2-1/2 and 60 acres, or on the average about 13 acres each. The titles to these properties, it should be noted, are vested jointly in the villages and in the individual owners. This means that the heads of families living in the villages are guaranteed by law the right to have and to hold individual

plots of ground, as long as they cultivate them, but the ultimate title rests in the village and the separate plots may not be sold or alienated in any manner.

ECONOMIC
SIDE

So much for social justice.

How has the Mexican agrarian reform worked out on the economic side? Unfortunately, no one knows the answer to this question. I have already given you certain figures referring to the very large imports into Mexico of food and animal products. These figures seem to me to be a clear indication of the fact that up to the present time at least, the agricultural realignment has not begun to function as efficiently as might be desired. In this connection, I might also cite for you the fact that, according to the statistics published by the Mexican Department of Agriculture, the production of corn in the five year period 1925-29 was almost 40% lower, wheat production 5% lower and the production of beans (frijoles) 21% lower than during the pre-revolutionary five year period 1906 - 10.

It may well be that it is still too early to judge the economic success or failure of the agrarian reform. But there can be no denying the fact that it has become clear to all concerned^{that} the social and political agrarian problem in Mexico cannot be divorced from the economic and technological problem of agriculture. Merely confirming the right of some 600,000 peasants to have and hold some 13,000,000 acres of land is worse than useless if no way is opened for the productive utilization of this land. This means irrigation, agricul-

tural banks, and systems of credit, marketing facilities, roads and systems of transportation, agricultural machinery and above all a diffusion of the knowledge of modern scientific methods of farming. So far, because of a lack of funds and for other reasons, the Mexican government has not been able to supply these things to the degree necessary.

What the future of the industry of agriculture in Mexico will be is almost impossible to predict. It would appear that Mexico by dividing up its agricultural lands into little parcels of 13 acres and by returning to a system of semi-communal land holding is setting up a method of agricultural exploitation definitely in opposition to the whole modern trend of large scale industrialized and mechanized farming procedure. It may be possible to work out some system of cooperatives whereby the many small farmers will pool their lands and their resources, but it would appear to be extremely doubtful that this can be successfully accomplished without a long period of education in a country which, to say the least, is not notorious for team-work and administrative efficiency.

SUMMARY

In attempting to analyze the present situation and to predict the future of the Mexican nation, there are certain facts that must be constantly held in mind.

Mexico is not a rich country. It was Cortéz who first started, in one of his glowing letters to Carlos V describing the fantastic riches of the New World, the legend of "Mexico, the treasure house of the world." As a matter of fact, as the well-known Mexican writer, Justo Sierra, pointed out many years

ago, the riches of Mexico have been greatly overestimated and this conclusion has been confirmed by another Mexican student, Carlos Díaz Dufoo, who, after a careful survey of the resources of the country, summed up the whole matter in his famous formula: "we are naturally rich, but economically poor."

Whatever may be the case with regard to the mineral resources or the industrial potentialities of Mexico, when it comes to agriculture even this statement of Dufoo's is rather optimistic. Modern realistic students of Mexican agrarian problems have presented facts indicating that agriculturally the nation is not only "economically poor" but also "naturally poor."

A good many of Mexico's economic difficulties will have to be charged up to nature - or whoever it was who dumped mountains all over the landscape and established Mexico's curious regime of climates. Even the most liberal estimates do not place the amount of land available for agriculture in Mexico at more than 147,000,000 acres. And of this amount it is judged that only around 49,000,000 acres can be cultivated without the necessity of large expenditures for irrigation works. In other words, agricultural authorities believe that between 65% and 70% of Mexico's total extension of 491,000,000 acres is, because of purely natural limitations, useless for agricultural purposes.

The extent of Mexico's economic deficiency is reflected in the statistics of public income. It is hard to realize with what slender resources the Mexican Government is attempt-

ing to minister to the needs of a population of over 16,000,000 people and to govern a country which could easily contain within its borders the combined areas of France, Germany and Spain. For this tremendous task, the Mexican Federal Government has had at its disposal in recent years an annual income of around 300,000,000 pesos. This is about what, for example, the state of Illinois spends every year for education alone. Or, to take another illustration, the total annual revenues of the Mexican Federal Government are, on the average, about 8,000,000 pesos less than Los Angeles, California spent on its city government in the last year for which statistics are available (1927).

We must remember in the second place that in the still very immediate past, Mexico has been through the experience of ten years and more of revolutionary strife and internal turmoil and disorder. This has been followed by drastic and far-reaching attempts at social and economic reforms which, whatever may be said for them on the side of justice, have shaken the country to its very foundations. And finally, to all this, during the last few years, has been added the repercussion on Mexico of the world-wide economic depression. Mexico, like every other country, and perhaps more than most, is suffering from a severe case of business congestion and the resultant financial halitosis. Mexico has silver, copper, oil, henequen and sugar to sell but nobody wants to buy them. And there you are -- or rather, there you are not!

Where is Mexico headed? I am sure I do not know. But this I do know: Mexico is fighting the good fight and I

for one am ready to affirm my faith in Mexico and the Mexican people. One cannot live in Mexico, as I have during the last four years and more, without catching something of the spirit of the eternal mañana. Things may be bad today, -- but tomorrow and tomorrow ---

Whatever may be Mexico's present difficulties, they will not, I believe, permanently obstruct the progress or curtail the dogged and patient persistence of a race which had produced civilizations and forgotten them when many of the nations of the western world which now hold their heads so high and so proudly were howling wildernesses and blank spaces on the face of the earth.