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# EXPANSION OF RACES

C. E. WOODRUFF, A.M., M.D.

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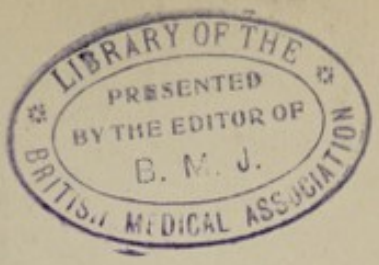
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# EXPANSION OF RACES

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# EXPANSION OF RACES

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BY

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PRESENTATION
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# PREFACE

In compliance with the custom which obliges one to apologize for presenting to the public anything new, it must be explained that this work is an anthropological study of one of the reasons for migration, war, famine and pestilence, and why mankind, in obedience to natural law, is unconsciously organizing to prevent these disasters and to make it possible for every babe to reach old age—excepting those meeting unavoidable fatal accidents, and even these become avoidable as knowledge increases.

Harmful customs cannot persist or they would destroy the species. War has survived because its advantages were greater than its disadvantages, and it is an instance of the survival of the fittest custom. There is no doubt, nevertheless, that on account of its disadvantages it is being constantly replaced by other methods cheaper in life and money, but which serve the same ends—survival of the most—and in time national wars will cease, but it will be a long time, for such a consummation requires a world-wide organization. In the absence of war there are other factors which prevent survival of all children, and necessitate a large birth rate.

The work, therefore, takes up the reasons for the increase, spread and organization of populations, together with the checks to overpopulation. It merely applies to man the natural laws which are known to govern the spread of all other species of plant or animal. It then explains the relationships of higher and lower races of man, and shows why we expanded across the Atlantic to America in the sixteenth and seventeenth centuries, and thence across the Pacific, and why the higher races must always control the tropics, though acclimatization and colonization are not possible.

To explain the reasons for our expansion to the Philippines and why such a move is but a part of the course of human events,

which can be traced back to prehistory, it was necessary to prove the one fact of universal overpopulation. This brought into the discussion many other topics which are apparently disconnected but which are really all bound together, and which must be explained if we are to understand why the retention of the Philippines may be our future necessity. To reduce the text to reasonable limits, much has been omitted which merely emphasized what had already been explained. On a few topics, such as the need of nitrogen nourishment in or out of the tropics, there is a profusion of evidence, which would be unduly extensive were it not for the fact that it is not otherwise possible to dispel popular misconceptions.

Throughout it has been the object to describe merely the facts and the laws governing them. There is no right or wrong in natural phenomena, and therefore no attempt has been made to hide the awful brutality, suffering, poverty and mortality which have been part and parcel of man's evolution to the present point in which modern civilization makes the suffering of a new kind.

Above all else there has not been presented any Utopian plan for curing nature. The facts are stated, and if we are shocked we must remember that it is natural that most of us must be crowded out of existence long before reaching the biblical age of three score and ten. Ethics never bothers nature, and we are governed by natural law to an extent we have never realized.

Most of the manuscript was written in various parts of the world, while actually collecting the data and observing the phenomena described. Particular emphasis, of course, has been given to the conditions in the Philippines—topics of which most Americans are sadly ignorant.

My thanks are due to *Dr. George M. Gould* and *Mr. H. I. Brock* for most valuable scientific and literary criticisms, to *Dr. Clark I. Wertenbaker* for his careful revision of the proofs, and *Dr. Victor E. Watkins* for revision of manuscript. For the index I am indebted to *Messrs. Max Weinberg* and *Frank H. Rand,* to whom thanks are also expressed.

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# EXPANSION OF RACES

## CHAPTER I

### POPULATION A FLUID

MAN SUBJECT TO NATURAL LAW—THE EARTH SATURATED WITH LIFE—EQUALITY OF BIRTHS AND DEATHS—MIGRATION IS NATURAL AND UNIVERSAL—MOVEMENTS IN CONFINED FLUIDS AND POPULATIONS—WAVE MOTIONS—PRESENT CRISIS IN POPULATION MOVEMENTS.

#### MAN SUBJECT TO NATURAL LAW

Man, being an animal, is under the influence of all the natural laws governing the evolution, increase and spread of other species. The possession of intelligence is generally, though falsely, assumed to upset law, yet the brain is a material thing, after all is said, and its functions are natural phenomena. Intelligence merely makes new phenomena and modifies old ones, but does not change any laws. The invention of balloons and aëroplanes has not upset gravitation. The great saurians once overran the earth, but later a few frail mammals became dominant because possessed of enough intelligence to survive conditions which killed the more stupid saurians. In like manner man became the dominant mammal, and the more intelligent races have long been exterminating or controlling the lower.

The basic fact, governing the evolution and spread of any species, is the fact that many more individuals are born than can possibly survive to raise offspring of their own. The surplus are killed off in one way or another, and only the fittest for survival remain. If these fittest are markedly different from the parent forms there is a new species, though biologists have not yet determined why offspring vary from ancestral types.

It is amazing that though man's enormous birth rate has been under discussion for over a century—ever since the epoch-making essay on Populations by *Thomas R. Malthus*—yet the full significance of the phenomenon has never been realized. *Darwin* himself called attention to the fact that unless we are thinned out by war, famine, disease and other accidents, our birth rate would so populate the earth in a few centuries that there would not be standing room. That is, in accordance with the laws governing all living forms, our birth rate is so large that there is chronic overpopulation, and always has been. The fact has been ignored and even denied, probably because of our neglect to apply to man to their fullest extent, all the laws governing his existence. Until we coldly consider him as merely one of the earth's animals, it is not possible to understand the past and present expansion of races.

## THE EARTH SATURATED WITH LIFE

Like every other organism, man spreads over the earth in search of food, for if he can obtain subsistence he is loth to move. Consequently there can be but one reason for shifting of residence—relative overpopulation at the native place.

It is a biological axiom that every part of the earth supports as many living things as can find food, or that the earth is always saturated with life. This does not mean that all the food is consumed, for that would result in extermination of supplies—some must be left for reproduction, and some may be unattainable.

The number of individuals in any species does not vary much from year to year, for if there are too many, some must starve, and if there are too few, they have increased chances of rearing offspring, and the balance is restored at once. If the numbers are too great they also destroy their own food supply, and in subsequent years the saturation point is much reduced. A visitation of a swarm of locusts, for instance, may so far destroy vegetation, that no locusts can exist in that place for months or years. Again, an increase in numbers of one species, is soon followed by an increase of the enemies which prey upon it, for

every species of living thing is a food for some other. The increase of enemies destroys this increase, then the enemies die out from lack of food, and both species revert to their normal saturation points or the maximum numbers which can obtain food. Averaging up all this constant shifting and balancing of food and feeders, we see that in the long run the death rate in any species is exactly equal to the birth rate—a law which holds universally for surviving species, and which cannot be persistently violated without one of two results—either the species will eventually overrun the earth, crowding out all competitors, or else it dies out. The law holds irrespective of the birth rate, and is as true for elephants, which have but few offspring, as for the fish, which have thousands, for in each case the number of deaths is equal to the births. After the two old elephants die they are succeeded by but two survivors of all their children, and similarly the myriads of young fish all die but two.

## EQUALITY OF BIRTHS AND DEATHS

The number of deaths being due to the number and activity of enemies and the severity of the environment, it follows that when no care can be given to the offspring the birth rate is strictly proportional to the severity of the struggle for existence. If the enemies are very slowly increased then there is a greater survival of the offspring of those having the largest families, and a progressive increase in the birth rate, from the extinction of those with the least number of offspring. Thus, certain sea birds have so few enemies that they survive though they lay but one egg a year at their nesting homes on the barren rocks in mid-ocean. On the other hand, the increasing enemies of the codfish gradually killed off the descendants of those having a small number of offspring, until now the cod lays many thousand eggs a year, and no matter how many hatch out, all but two of them, on an average, are eventually killed before leaving descendants. The number of offspring is also inversely proportional to the protection they receive from their parents. The lower animals, giving them no care whatever, allow the enemies full play, but this is really only one element in the problem.

Certain ground birds must have twenty or thirty hatched eggs a year, even if they do not give the young the greatest care, far greater than the sea birds having but one egg a year.

If the enemies increase suddenly, not allowing for adjustment to the environment by increase of offspring or increased ability to escape the enemies, then extinction results as in the case of our buffalo. If the enemies are lessened as by changing the environment then the animal increases prodigiously. The mongoose in India has six litters a year, of five to ten offspring each time, but its enemies kill them all except two, and can then kill the parents also, yet the mongoose runs no risk of extinction. Transported to Jamaica to kill rats, it has overrun the Island and bid fair at one time to ruin all the plantations. There is the similar rabbit pest of New Zealand and Australia, a pest which also ruined one of the Madeiras* about 1435.

Evolution cannot take place unless there are adversities to kill off those whose variations make them the least fit, so that there will be a survival of those better fitted to the environment, and a gradual change in the species. Under no other conditions can change take place, for if all are preserved there cannot be a survival of the fittest. We need not go into an explanation of why there are no two individuals exactly alike in any species, how all vary from the average, and how some of these variations make the individual better fitted for the environment than his brothers or cousins and more likely to survive and leave offspring. What is necessary for the present discussion is to realize that there is always a ruthless destruction of life in the struggle for existence when evolution occurs, and that this struggle depends upon overpopulation.

The average of a species must necessarily be out of adjustment to its environment if evolution occurs, because it is those varying from the average which survive. If the average were the best fitted then they would survive in the largest number and there would be no change in the species, a condition existing among a few marine animals, which after millions of years are the same as their paleozoic ancestors.

* Porto Santo.

## MIGRATION IS NATURAL AND UNIVERSAL

We can apply all these rules to man, for he always exists in as dense masses as he can. He has advanced the most of all, has always been out of adjustment, and those better fitted than the average are the survivors. Death of excessive numbers is the price paid for the advance of the survivors. The tendency to spread is, then, a natural phenomenon wholly beyond our control. The courtiers who thought that the Norse king could control the sea waves, and Xerxes who whipped the Hellespont, were not more foolish than modern men who think that by a word we might control the spreading waves of population. It is common knowledge that the ocean waves are under the guidance of perfectly definite and rigid natural laws, and that their speed, size and power can be calculated almost as accurately as eclipses of the moon. There are spreading waves of every species of living thing, man included, and they are as rigidly controlled by definite laws as are the currents of water. Though the laws relative to the movements of population have actually little in common with the laws of fluids, yet the analogy between the two is remarkable. A fluid is a mass composed of particles which move about freely among themselves, the higher the temperature the more rapid and the greater are the excursions of each particle. Population is likewise a mass composed of units which move about freely among themselves, and the greater the excitement the greater and more rapid the movements.

Population sometimes flows sluggishly like lava, as in the gradual spread of Teutonic races into America, sometimes fiercely like volatile ether, as in those frightful excursions of the Mongols into Europe. In the former case there is adhesion to the surface, as with oils; in the latter there was separation from the surface, as with fluid mercury.

The path selected is that of least resistance. Though most rivers are now flowing as they have for untold thousands of years, yet they are constantly deviating in obedience to new forces, and though the channels of human travel are virtually the same on land as they have been since prehistoric times, yet

there are constant deviations in obedience to new forces, such as the steam engine, which make new paths of least resistance.

## MOVEMENTS IN CONFINED FLUIDS AND POPULATIONS

Confined fluids which do not move as a whole, are still in internal motion, and there is a restless "convection" by which internal currents cause a ceaseless mixing of particles. In the same way there are minor currents in each nation at peace, or from nation to nation, causing a ceaseless movement of mixing, so that the inhabitants of a district are constantly changing. The longer a confined fluid is kept at rest, the less become the currents of convection, and the longer a people is at peace the quieter it becomes, and the more steadfast is the population of any one district. Our own spreading currents were comparatively feeble and sluggish until stirred up by the Mexican War and the discovery of gold in the West, when they became tremendous. Currents which overflow political boundary lines are now just as constant as ever, but they are more evidently overflows. It seems as though the effect of modern governments is to build high walls along the borders to confine the fluid so that it is deeper, like a mill pond. Thus, population may be dense in one place and thin in another, but no marked mixing occurs as of old, until the fluid rises above the retaining walls and the surplus flows over. If the counter pressure on the other side should diminish, the wall might break and the fluid pour out, like the recent German flood into Alsace-Lorraine. In that case the nations build new retaining walls around the flooded territory.

A homogenous population, if allowed to rest, settles itself into layers like liquids of different densities, and this phenomenon is due to the normal variations in brain power. There is an upper, middle and lower class in every nation, except possibly among the lowest savages. We have our submerged tenth, and our best people, just as they have in England; and likewise in both countries, there are constant currents carrying men from one class into another. After a few generations in an upper or a lower class, the descendants are apt to die out or seek the great

middle class—the real people. It is usually three generations from shirt sleeves to shirt sleeves, in spite of some notable exceptions.

We may pour unmiscible fluids into a bottle and shake them together to get an emulsion of separate particles, but the fluids will settle into layers again. Similarly unmiscible populations forcibly shaken together will naturally separate. This is best illustrated in the Pacific Islands, where the original black, short, woolly-haired negritto type in the North, and the Melanesians, a similar type in Australasia, were the original inhabitants. They were forced to the hills or subdued by the second or pre-Malay race. A third people, the Malays, leaving Asia comparatively recently, have forced themselves in here and there. These three types have been enormously mixed, and yet are as distinct as they were hundreds of years ago. Japanese and Chinese have spread to the Pacific Islands and mixed with the rest of the population, and yet the frail half-breed types gradually disappear. It seems as though the various races of man were almost of different species, for by the law so mush used by *Darwin*, different varieties of the same species, such as the domestic dog, produce vigorous fecund offspring, while hybrids (like mules) between animals of different species, are sterile or soon die out. Though the Negro and the Aryan had the same ancestor, if we go far enough back geologically, they have diverged so much as to be almost different species instead of being different varieties of the same as usually taught—indeed, a few scientists believe them to be different species.

## WAVE MOTIONS

There are wave motions in fluids wherein each particle describes a tiny movement and then returns to its original place, the wave spreading widely. So, in population, a commotion at one spot is spread by wave motion throughout the whole mass, and the further from the center the less effect. A crime of a negro in Mississippi produces a commotion resulting in a lynching, but in New England this wave is not felt at all, as they are too far away. They only note an after-wave caused by the

second crime. Popular excitements increase the movements of populations and are analogous to rise of temperature, indeed, it seems as though they boil and exert increased pressure. The "mob mind,"* is the motion in an excited mass. It closely resembles the action of all gregarious animals, for a tiny disturbance is transmitted to the herd, which takes instant flight—a habit due to natural selection.

War is merely a whole nation in movement like a boiling fluid, for some cause is acting on each particle. It always has the "will" of the nation behind it, in spite of the fact that many if not most of the units do not understand what is impelling them to form that "will." Leaders only lead, they never drive, and indeed statesmen often find that they cannot prevent war even when they know it will be disastrous. It is a flood. Now, when an ocean moves, as in the tides, the force causing it is tremendous, and similarly the force causing war is the irresistible struggle for existence among nations. Evolution depends upon these contests. Isolated populations are like dead seas, but unconfined warlike ones are clear rivers carrying on civilization. It seems as though war actually purifies nations, in the same way that agitation clarifies water by mixing oxygen to consume the filth. It certainly stirs up the filth temporarily, and makes it more evident and, like a muddy river, may even accumulate more, but that should not blind us to the fact that it has been a natural phenomenon whose benefits have outweighed its disadvantages. It will subsequently be explained how the warrior nations themselves are ending war because they are attaining its purposes in other ways; we are here concerned merely with its origin and fluid-like nature.

National diseases due to peace, are far worse than those due to war. War is hell because its destruction is more evident, but the destruction of peace is immeasurably more infernal, as we will shortly see. Our late war did not destroy nearly as many lives as Philadelphia destroys in a short period by typhoid fever. We often hear of the number of Filipinos killed in their war, but the number is inconsiderable compared with the quarter million or more killed by cholera after that war

*See Prof. E. A. Ross, *Popular Science Monthly*, July, 1897.

ended. The deaths in war are not a particle more ruthless than the deaths in peace in the lower classes from sheer inability to secure a living.

### PRESENT CRISIS IN POPULATION MOVEMENTS

At the present time, and since 1896, we are in one of those frequent periodical crises of great excitement and movement in more than one part of the world. The average man cannot resist these wave motions and currents any more than a particle of water can resist the ocean currents. He is a particle in a fluid and an obedient subject of the laws under which he worked out his own evolution as a unit in society, and he instinctively obeys the laws governing the mass. He may think he is a free agent and that his conduct is the result of his own reasoning. What a man thinks is to such a large extent the result of his inheritance that we know that there is very little real logical reasoning on any topics even among civilized nations. In international affairs most men as particles of the mass are ruled by biological forces just as rigidly as the ocean particles are ruled by mechanical forces.

When the wind blows the seed of a tree broadcast, each seed obeys the forces acting on it, whether it is to survive or not, and when populations thus spread, each man obeys the forces acting on him whether he is to survive or not. It is not fate nor destiny. This nation shows a tendency to spread to a climate so different from the native one that extinction is positively certain. It behooves us to pause and see whether our impulse is as fatal as that which carries a moth to the flame.

In true representative countries, the representatives obey the popular will, and as a rule such nations are more quickly influenced by natural law than those with hereditary rulers. To be sure men are easily led, like sheep, and are intensely sensitive to suggestion, absorbing ideas which they subsequently think are their own. In race wars and expansion—they are far more under natural law than suggestion—nevertheless they can be guided by leaders even if they cannot be restrained, just as waters may be guided when we cannot confine them. It is the

part of wisdom, then, to teach what leads to survival, and not obey the popular will leading to destruction.

By keeping in mind the fact that populations obey the laws of fluids in a general way, we can appreciate the result—wherever it is possible for this fluid to spread, it instantly does so. It is under constant internal pressure forcing it in every direction. A dam does not prevent water reaching the ocean to which gravity draws it, and immigration laws may temporarily check human currents, but the ultimate result is not changed in the slightest.

# CHAPTER II

## SATURATION POINT OF POPULATIONS

DEFINITION OF SATURATION—CONSTANT INCREASE OF FOODS—TENUITY OF PRIMITIVE POPULATIONS—SLOWNESS OF POPULATION INCREASES—FORCED INCREASES OF LOWER RACES—DIMINUTION OF POPULATION WHEN CIVILIZATION DECAYS—RELATION OF SATURATION POINT TO RAINFALL—SOIL EXHAUSTION—DENSITY OF TROPICAL POPULATIONS—CULTURE MAY DIMINISH POPULATIONS—SUBDIVISION OF FARMS—MIGRATIONS FOR LARGER FARMS.

### DEFINITION OF SATURATION

Before discussing our fluid-like migrations, it is necessary to determine what is overcrowding. We will call a place saturated when it contains as many men as can be fed with food raised in that place. Here, again, population acts like a fluid. The soil cannot possibly hold all the rain poured upon it. Some must run off or be evaporated after collecting in pools, nor can the surface hold the rain of babies poured upon it. They, too, collect in pools of humanity to be evaporated by death, or they must flow off in migrating streams as soon as able.

The depth of these pools of humanity, or the density of population, depends chiefly upon the stage of civilization; that is, the saturation point rises with knowledge, just as the saturation of air with moisture rises with the temperature. The higher the culture, the more food can be produced from a given area, for cultivated land produces two thousand times as much food as an equal area of hunting land, and in the future it will produce still more. A country that could support one savage hunter for each fifty square miles, might support ten pastoral people, or a hundred semi-civilized agricultural and pastoral, or 1,600 to 2,000 modern farmers, or 3,000 farmers in a short time. Within a century German farmers have trebled the amount yielded per acre. Only recently we ourselves have learned of new methods

of raising corn, so that one State alone added 45,000,000 bushels to her yield without increasing the acreage. It is predicted that these new discoveries will eventually add a billion bushels to our crop, and every year, at least in every decade, there is a discovery which increases the yield of some food.

### CONSTANT INCREASE OF FOODS

The whole world seems to be at work on this one line of making it possible for more men to exist on earth. In the studies of cereal raising, the strides have been enormous in the last seventy-five years—probably more than in any previous thousand. Even in the matter of fruit trees, the trend is toward the dwarf varieties, which bear earlier and which can be replanted almost like cereals, and the yield per acre is enormously increased.

As an illustration of the manner in which the inventions of civilization increase the food supply of deserts, we need mention only one—the new varieties of spineless cactus (*opuntias*) created by *Luther Burbank*, of Santa Rosa, California. These are most valuable foods for live stock, and enable us to raise fodder from lands otherwise worthless. They are very rich in starch and the fruit in sugar. The plants are hardy and live without cultivation. He estimates that they will yield an average of ninety tons of forage per acre besides enormous amounts of fruit, which means, of course, an enormous addition to the world's population, for it utilizes arid, rocky and rough ground now wholly unproductive, in both hot and cold climates.

Irrigation is another means by which civilization increases the saturation point. Not only does it cause the desert to yield foods, but to yield them in progressively increasing amounts. Even when there is plenty of water, the fertile lands are often so high that it requires great engineering skill to design dams and canals. Barbarous peoples, as in ancient Egypt, could irrigate only the flat lowlands at or near river deltas, but modern man is creeping slowly up-stream. Until the twentieth century our irrigated lands were solely the lowest valleys, but we are now taking in higher land. As the work requires government initiative, we ushered in the new century by the formation of "A Reclamation Service" as a part of the Geological Survey.

By 1906 this service had built seventy-seven miles of main canals, fifty-four miles of distributing canals and one hundred and eighty-six miles of ditches, besides necessary dams, roads and tunnels. It had started thirteen different schemes and planned about twenty-four more. It was calculated that the reclaimable area in the Great American Desert is 75,000,000 acres, costing one and one-half billions to irrigate, but valued at two and one-half billions when watered, and capable of giving homes to 7,500,000 farmers and food for some millions of factory hands. It increases our saturation point year by year, and as time goes on we will get water on still higher levels, so that it might be said that the saturation point will constantly rise but at a steadily decreasing rate.

Our possible increase of population, through irrigation, is much overestimated. Though nearly two-fifths of our area is arid—much of the western half—less than twenty per cent. of it is irrigable. Fifteen per cent. is mountainous, and sixty per cent. permanently arid. If we limit a family to ten acres it adds only 40,000,000 to the population. The stress is always so great that crowds await the opening of each new area. In two months in 1901, September and October, the railroads took out 30,000 colonists, of whom 5,000 were permanently settled, yet in five years only 10,000 found homes in the new irrigated areas. At a very liberal estimate each farmer requires two people to supply him with necessaries, so the total increase will be 120,000,000, but that is a long way in the future.

Canada is a brilliant illustration of the fact that increase of population depends upon increase of food and not on a profusion of babies. Louis XIV and his advisers tried in every way to increase the number of marriages and to stimulate the birth rate. Women were sent over by hundreds and thousands to be wives of the discharged soldiers previously sent out as colonists, and bounties were given for large families. Louis wanted population to increase of itself, for he said he needed his young men for the armies. All these measures failed, while New England, left to its own devises, and wholly abandoned by the mother country, increased by leaps and bounds. The causes are evident. Can-

ada was based on the fur trade, for which agriculture was neglected. It could not support a large population and what it had was in the most abject poverty. In New England, all energies were directed to the production of food, and the population instantly responded. The birth rate was not as great as in Canada but the increase was far greater.

### TENUITY OF PRIMITIVE POPULATIONS

From the difficulty of obtaining specimens of gorillas we can well assume that they are not numerous—a few thousand all told, perhaps. Similarly the density of population of primitive man, in the eolithic stage or the protolithic when he used stones as mere weapons, was very little. This partly explains the rarity of the remains of these men—a matter which does not receive sufficient attention from the anthropologists. It probably explains the paucity of the remains of paleolithic man. Perhaps all of Europe contained but a few thousand men in these early times, widely scattered in tiny groups. Even in the next or neolithic stage, but few existed and in the bronze age there were no dense masses. The Veddas of Ceylon, one of the lowest types at present, scarcely number 2,000, though inhabiting vast areas.

Current ideas as to the density of populations even in ancient civilized times are very erroneous. When our ancestors in Denmark were in the stage of culture of the native Australians, only 500 could live in the 15,000 square miles of that country. When they raised themselves to the stage of the Patagonians 1,000 could live, and when they were like the native of the Hudson Bay country, only 1,500. Later, 4,000 or 5,000 B. C., when they became pastoral, one family required 300 cattle or 2,000 acres. At that time France could not support 50,000 and Europe had less than 1,000,000 people. It required several thousand years to produce those hordes which subsequently fell upon the South, and recent research has established the fact that the barbarous peoples who subdued the Roman empire were not nearly so numerous as we once believed. As late as the time of the Norman conquest, and for several centuries later, there were not 100,000,000 people in all Europe, which had but 40,000,000

in 500 A. D. and only 70,000,000 in 1500, and could not support 170,000,000 until 1800 A. D. As late as the time of Cæsar, we know that there were immense forests in Europe—tremendous areas practically uninhabited. Very few people per mile lived in the rude North, though the more highly civilized South was quite densely populated. The Romans were agriculturists almost entirely, while the Germans were hunters to a large extent, and could not secure as much food.

The total population of Alexander's Empire and also that of Rome at its greatest extension was less than the present population of the United States. The whole world in 1800 contained only about 600,000,000 and holds only about 1,700,000,000 now. Biblical traditions are often absurd exaggerations due to tiny accretions from generation to generation. We can read between the lines and see undoubted proof of the fact that Judaic history is that of small petty tribes of recently settled nomads. The numbers of Israelites, for instance, alleged to have been taken to Babylon, would have paralyzed food supplies and brought famine. The captives really numbered but 4,600, and they were scattered throughout the empire.* Flinders-Petrie (Researches in Sinai) states that the Israelites of the Exodus were very few—possibly not more than 5,000. In its palmiest days Israel could muster but 40,000 fighting men. A "tribe" even now may consist of but four tents or twenty Bedouins. Josephus was notoriously untruthful who deliberately magnified Roman victories to flatter the generals. His statement that there were 1,200,000 people in Jerusalem when destroyed by Titus in 70 A.D., is equivalent to 2,400 per acre.

Likewise when we hear that millions of Jews lived in Egypt when it was a Greek province, and that those colonized in Alexandria by Alexander himself, made it the second Jewish city in the world†, we can well express disbelief. We know that they were unable to produce food and only engaged in distribution or herding cattle. Millions could not have been fed.

Eastern Siberia has had civilizations nearby for ages, and it should have a dense population if it could support them. That

* Jeremiah lii, 28-30. † Cornill's History of Israel.

it has not many people is proof that it cannot raise the food or the material with which to buy it. The Russians have attempted to colonize, but so far have failed, and no doubt always will fail just as we have in the similar semi-arid land of our plains. It is not a question of the stupidity of the settler, but one of inability to find food, and writers on the subject are frequently oblivious of this point.

America was saturated with Indians in pre-Columbian times. Some were civilized and in dense masses, but it is calculated from the tenuity of others, vast areas being used as game preserves by small tribes, that not more than 300,000 could have existed in all. By the 1900 census, there are 325,000 persons on our Indian Reservations and in the Indian Territory. There is some ground for the frequent assertion that there are more Indians in America than when Columbus came. They are now grouped into masses—then they were spread out. *Morgan** estimated that New York State, with its 47,000 square miles of hunting land, never supported more than 25,000 Indians, and probably this is a great overestimate.

When civilization is stationary, so is the saturation point, and there can be no increase of population. China, for instance, is said to have had about 400,000,000 of people for many centuries, and there is a death for every birth. Occasionally, with a succession of good crops, the death rate lessens; but then comes a failure of crops and an awful famine, or pestilence sweeps off the millions. So that it is safe to say that in China, for many centuries, the death rate has equaled the birth rate.

## SLOWNESS OF POPULATION INCREASES

Until the nineteenth century the advance of European civilization was slow, at first it was very slow, so that the saturation point rose very little per 1,000 years, scarcely doubling from 500 to 1500 A. D. It follows, then, that even when civilization advances, the death rate cannot be much less than the birth rate, or overpopulation would result and the usual compensation occur. In prehistoric times the two rates were very nearly equal.

* Ancient Society.

The large rates of increase of population of a century ago were due to the rapid flaring up of civilization and food importations. The lessening of the rate subsequent to 1850, is shown in the following tables, copied from *J. H. Schooling*:*

YEARLY RATES OF INCREASE PER 1000

| | 1800-1850 | 1850-1890 |
|---|---|---|
| United States | 39 | 25 |
| Russia | 14 | 8 |
| United Kingdom | 13 | 8 |
| Germany | 8 | 8 |
| Italy | 7 | 6 |
| Austria | 5 | 6 |
| Spain | 7 | 5 |
| France | 6 | 2 |

FOR THE WHOLE WORLD

| | |
|---|---|
| 1810-28 | 12 |
| 1828-45 | 10 |
| 1845-74 | 11 |
| 1874-86 | 6 |

These few facts will explain a long-known law of population —the increase is inversely proportional to the density. That is, when the population is very dense further increase must be slow, as there is no more food.

The replacing of our buffalo by beef cattle is an illustration of the manner in which increased civilization increases density of population. The wild buffalo existed in herds for protection, hence they could not scatter to use up the available grass. The Indian could not domesticate them or keep down their enemies, the wolves. Civilized man has introduced domesticated cattle which are so scattered as to use more of the available food, and he exterminates the wolves and other enemies, so that it is probable that we now have one hundred cattle for every buffalo. The Indians killed few buffalo, but the wolves killed many. Through civilization, then, the grasses of our West are changed into more meat than before, and all the meat becomes food for man instead of wolves. As this food is exported in large quantities to Europe, we find that as the wolves in America decreased,

* *Cosmopolitan*, July 1901.

the size of London increased. It is an illustration of the disappearance of animals which had been consuming food needed for man. The Indian could not accomplish this because he had not sufficient intelligence. Even now, if he goes into the cattle business, he must be supervised and helped by white men employed by the government for the purpose. In May, 1904, it was reported that bands of Indians from the upper Columbia River were roving over the hills and along the streams of Grant County, in Oregon, causing untold loss by spreading diseases from their useless ponies to the vast herds of cattle. If we allowed all our Indians to rove as they pleased our cattle would thus disappear, and some Englishmen in London would starve to death. The sympathy flowing out to our poor Indians—virtual prisoners on reservations—and to our useless buffalo, is very much misplaced. They both stood in the way of a vast increase of population, and they had to stand aside, with the wolves. We must make up our minds that we must care for the Indian forever—it is a white man's burden—but it is small compared to the advantage we have received by imprisoning him.

### FORCED INCREASES OF LOWER RACES

When civilization is forced upon a lower race, establishing a higher government than they themselves can manage, there is more food production and a very rapid rise of the saturation point. In the semi-savage or barbarous condition existing when the Spaniards came to the Philippines, it is said there were less than a million people. In three centuries there were six million, and in each case it is certain that it is the maximum which could be fed. Spanish engineers have constructed immense irrigation works and have otherwise improved the land so that they raised food for six men where formerly only one could exist.

Egypt has repeatedly had increased density of population when higher races raised the civilization. The population was 7,000,000 when the British assumed control, but it increased to 9,750,000 in 1899, and it is to be further increased by the new storage reservoir made by the Assouan dam, which adds an

arable area equal to Rhode Island. The strip on each side of the Nile is equal in area to Vermont and Rhode Island combined—about 1,600,000 acres. In ancient times similar irrigation lakes were constructed by conquering types and the population was consequently much increased, but as the conquerors disappeared, the works were neglected, food diminished and population decreased. Should the British be so foolish as to relinquish control, their present works will be neglected, food will diminish and the population decrease by millions.

Java has had a tremendous increase of population due to a high civilization forced upon the native. The Dutch and the leading natives in Java are even of the opinion that the population is increasing too rapidly. The Island is only a little larger than New York State, and the central regions are too mountainous for a dense population. In 1825 it contained but 5,000,000 people, but the last census showed a total population of 28,-745,698, indicating a frightful congestion of humanity in the plains and valleys. The density is 568 persons for every square mile of surface, which is greater than in any province of China, excepting Shantung. If France had the same density its inhabitants would number 120,000,000; the United States, at the same rate, would have 1,688,000,000, or about the estimated population of the world. Such packing of humanity as this, at least illustrates the fact that when every acre of tillable land is stimulated to its highest productivity, it will give sustenance to several times the number of persons who are now supplied with food. The Javanese are still able to raise all their food and also to export the products of their plantations and forests to the amount of millions of dollars a year. But they are already talking about a time to come when they will no longer be able to produce all the food they require.

One of the curious instances of reversing cause and effect is a report that *Prof. Bernard Moses*, of the University of California, commenting on the above increase of population and the remarkable extent to which cultivation of every inch of land is carried, said that it was all necessary to keep the rapidly increasing population supplied with food. The real condition is the opposite—the population increases because the food has

been increased in quantity. Though a student and professor of social phenomena, he only voices the general ignorance of this first law of nature—all animals exist to the limit of their food supply. If food is not ready for an increase, the surplus must starve.

### DIMINUTION OF POPULATION WHEN CIVILIZATION DECAYS

Long before 500 B. C. Ceylon was overrun from the North by an Aryan-speaking race having a high civilization, with a written language called Pali—a dialect of Sanskrit. It built up a civilization with tremendous irrigating works with artificial lakes of masonry, the remains of which are marvelous. They supported a population of 10,000,000, the ruins of one city alone being sixteen miles in diameter. But the ruling race died out, the civilization died in the hands of the native Cingalese, and non-production of food caused loss of population. Even with English law and order and civilization only about 4,000,000 can find food, and they are frightfully overcrowded; but in ancient times it was a granary for South Eastern Asia.

Venezuela is also an instance in point. Its high civilization was thrust upon it by a higher race, but its population is receding because the people are unable to carry the civilization on. Hence, it is producing less food and less of other things which they could sell to pay for imported food. In 1903 the population was many thousands less than in 1883, and this will continue until Aryans take charge and save the natives from the death they are bringing upon themselves.

The decadence of the Mediterranean civilization in the first five centuries of the Christian era was due to the death of the high types of Northern men who had built it up. Therefore, the high density of population of Cæsar's time could not be sustained. There was a very marked reduction of population around the Mediterranean in the various wars which followed the profound peace of the Roman Empire. "It is affirmed that in the African campaign (533 A. D.) 5,000,000 of the people of that country were consumed; that during the twenty years of the Gothic war Italy lost 15,000,000; and that the wars, famines, and pestilences of the reign of Justinian diminished the

human species by the almost incredible number of 100,000,000."* Making due allowance for the exaggerations which were accepted as fact when *Draper* wrote, we can presume that there was at least a great reduction. Similarly, the dense populations once living in the valleys of the Euphrates and Tigris, were due to the invasion of races more intelligent than the native. They constructed artificial lakes with irrigating canals 400 miles long and 200 to 400 feet wide, and produced enormous quantities of food, where now practically none is raised, and there are no people as a result of the death of the higher race and its civilization.

## RELATION OF SATURATION POINT TO RAINFALL

The saturation point is often incorrectly stated by omitting the contributing areas. Thus, it is said that California, in her irrigation lands, can support 500 per mile, but this is only one part of the real area needed, for the vast mountain forests from which water is obtained must forever remain unsettled. Thus, while California has now but ten per square mile, and the whole coast only four, the chances for much more increase are not so great as is often stated. Likewise the crowding of Egyptians in the little Nile strip, depends on the enormous watershed to the South. *Prof. E. W. Hilgard,* University of California, makes this very mistake† when he states that it required but ten to twenty acres to a family in irrigated California colonies as compared with the forty to 160 acres in humid regions. It was likewise erroneous to state that certain Arizona and New Mexico Indians could exist in dense masses, for very recently white men have damned up the streams and taken the water formerly used by the Indians, who are now said to be decreasing in numbers because they cannot irrigate their crops.

The saturation point for population closely corresponds to the mean annual rainfall. That is, the more rain there is, the more grass and grain, and therefore more flocks and herds for man to eat. Thus, very little wheat is grown in the United

*Draper: Intellectual Development of Europe.
†*North American Review,* Sept., 1902.

States in Western lands having less than twenty inches of rain. In England and Scotland wheat grows only where the rainfall is more than thirty inches. In South Australia, *Sir Charles Todd* has shown that there is a very close relationship between the mean annual rainfall and the mean number of bushels of wheat per acre. It is matter of common knowledge that the annual variations in our crops are proportional to the annual fluctuations in the amount of rain.

Likewise the number of sheep depend upon the grass and that upon the rain. In Australia, *Mr. J. T. Wills* has found that where they have less than ten inches of rain the land is worthless, unless irrigated. If there is ten inches, they can raise eight or nine sheep per square mile; if there is twenty inches of rain, they can raise 640. In Buenos Ayres with thirty-four inches, they raise 2,560. When they overstock in wet years there will, of course, be insufficient food in dry years, and it is possible to calculate ahead how many sheep will die in Australia for every inch deficiency of rain.

Hence, a map of mean annual rainfall, such as those made by *Dr. A. J. Herbertson*, Lecturer on Regional Geography, of Oxford University, is a very fair map of the density of population. There are minor differences, of course, due to the fact that some places of heavy rainfall are too mountainous, or are too hot and light for the higher races to survive and build up a civilization with its higher saturation point. *Herbertson* shows that the amount of moisture in the air diminishes with the temperature and therefore with the elevation. Hence, a map of the United States, shaded to represent elevation, generally approximates a map shaded to represent density of population. It seems as though population, like a real fluid, settles in the low lands. For instance, the 100th meridian of longitude separates arid from wet regions; west of it are dry elevated plains and a density of population less than two per mile; east of it is a narrow strip, lower and with more rain, but with two to six people per mile; then another lower zone with six to eighteen per mile; then on the ninety-eighth meridian begins the real population of eighteen to forty-eight per mile, increasing as we go east, until it reaches ninety and over in the area around the

Great Lakes as far east as Massachusetts and as far south as Kentucky.*

*L. W. Dallas*, the English statistician, proved† that the population of India depends directly upon the rainfall, being checked in its increase or actually decreasing in years of drouth. It merely shows how intensely sensitive population must be to the food supply, for when there is less to eat some must die, and if nothing to eat, all must die. What *Dallas* proves for India is a universal law, common to all countries, but only more evident in India, where there are so many people. We have essentially the same cycles of maxima and minima of rainfall as in India. A writer in *Popular Science Monthly* some years ago proved that all our financial panics and periods of industrial distress have followed the minima in the cycles of rain, and are wholly disconnected from the particular political policy the nation may have adopted. Panics were simply due to the fact that the country did not produce as much wealth in the dry years, and there was distress in place of the famines which trouble other countries.

## SOIL EXHAUSTION

There is a counteracting factor to food production to which the late *Prof. N. S. Shaler* called attention in a very able geological paper in *The International Quarterly*, May, 1905. He showed that the roots of wild vegetation hold the soil and prevent it being wasted by rains into the sea, but when man clears a field, it is subjected to so much washing that it loses in one heavy rain as much as it would ordinarily lose in several centuries. Consequently the food production is lessened and the density of that population must diminish until the land becomes feral again and recuperates. He says: "There is no basis for an accurate reckoning, but it seems likely from several local estimates that the average loss of tillage value of the region about the Mediterranean exceeds one-third of what it was originally. In sundry parts of the United States, especially in the hilly country of Virginia and Kentucky, the depth and fertility

* Census Atlas.
† Quarterly Journal of the London Meteorological Society, 1905.

of the soil has in about one hundred and fifty years been shorn away in like great measure. Except in a few regions, as in England and Belgium, where the declivities are prevailingly gentle, it may be said that the tilled land of the world exhibits a steadfast reduction in those features which give it value to man. Even when the substance of the soil remains in unimpaired thickness, as in the so-called prairie lands of the Mississippi Valley, the progressive decrease on the average returns to cropping shows that the impoverishment is steadfastly going on." Man, then, by the very processes he starts, lessens his own food supply and lessens his own density of population, just as every other animal does when it exists in such great numbers as to destroy its food supply. Arid lands contain more plant food than humid ones, as the latter are being constantly washed out by rains, and this fully explains the enormous crops obtained by irrigating the deserts, but there is evidence that even they are washed out in time, unless the soil is constantly renewed, as in Egypt.

### DENSITY OF TROPICAL POPULATIONS

The inability to grow sufficient food is, of course, the reason why saturation points are low in tropical countries. The savage does not know how and must depend upon wild food. The evolution of cultivated plants and animals has been so gradual that they have adjusted themselves to bacterial and other enemies by evolving an immunity through natural selection, so that they can exist in large numbers and do not die of plagues. Transport these animals to a new climate where they meet new enemies against which they have not evolved immunity and they promptly die. Hence, a savage country can never have its grazing and other areas quickly stocked with imported domestic animals to the limit of its grass and grain production, for as soon as this is attempted we have rhinderpest, surra, glanders, or some other plague, which wipes them all out of existence. This has happened time and time again in the Philippines, where there are millions of acres of magnificent ranges upon which countless herds of cattle could subsist if they

could only resist the local infections. These ranges will not be occupied until there has been evolved by combined natural and artificial selection a breed of domestic animals with an immunity against these diseases. This, of course, will take many centuries, for it is an exceedingly slow process. Even the humped-back cattle called zebus, and the carabao imported from similar climates, have not yet developed this immunity, and are now and then destroyed over large areas. There are always many million acres of rice and corn land fallow because there are no carabao to drag plows and harrows. Hence, we see that these islands, as well as all other lands which, until a few centuries ago, had few or none of our food animals, cannot now support anywhere near the population which could be supported if all the land were used which is capable of use for cultivation or grazing, but the development of the proper species will slowly raise the saturation point for many centuries.

It might be said that through the use of vaccines and serums an artificial immunity could be conferred on domestic animals, but this implies that men of much intelligence must be on the spot to do it, for the native has not the requisite brain. For this purpose alone there will be required a higher percentage of white men in the tropics than our past experience has shown could be sustained, or perhaps could of themselves stand the climate. The present proprietors of lands which are fallow for the want of draught animals, have been asked why they did not import more and go to work, and they have promptly replied that it was of no use, that they had done so before, but that the cattle had at once died of rhinderpest. Until we learn how to prevent this, there must be great loss by overstocking ranges, which at present are supporting as food for the natives the maximum number of deer and wild hog of which they are capable. These animals may not be immune, but probably are; anyhow, they are so scattered that infection can spread from one to another with difficulty, if at all.

When we went to the Philippines we were told that European stock could not live there—it had been tried time and time again. But we were arrogant, and knew better. Some cavalrymen said it was nonsense, and that the English did not know how.

Nevertheless, our informants were correct. At the present writing, to save the remnant of our stock, we are occupying our time killing thousands of horses and mules infected with surra—a disease to which the Indian native and domestic animals have at least a partial immunity, gained through several milleniums of selection, but to which our stock is not immune. So the increase of population must be very slow to keep pace with the inhabitant's ability to increase the food output.

Finally, the filthy habits of savages prevent existence in dense masses on account of self-poisoning and infection. It reacts also upon their food supplies, for their domestic animals die of diseases easily avoidable by attention to simple cleanliness. The Filipinos raise to maturity only a very small proportion of the young hogs and chickens, there being great mortality from numerous infections grouped as chicken cholera and hog cholera. These animals, by the way, have been in the Philippines for many centuries, and were imported from equally filthy countries, and have evolved a partial immunity, so that they are not entirely wiped out, as is the case with more recent importations of domestic animals from clean countries. It was a curious result of our sanitary efforts to clean up the towns during cholera times, that the natives did not thank us in the least for having saved them from cholera—not at all—on the contrary they considered it all foolishness. There was no cholera, they said, because nearly all would have died, as in prior epidemics. But they did notice that they were able, under clean conditions, to raise nearly all of their young chickens and hogs, and they thought, therefore, it was a good thing to be more sanitary—not that it saved human lives but that it saved more hogs. Nevertheless, as soon as we had to relax our efforts, when our military control ceased, they relapsed into old ways and were as filthy as ever, and cholera has repeatedly visited them. To survive they must be under military control.

### CULTURE MAY DIMINISH POPULATIONS

Culture may even reduce the saturation point after increasing it. According to a manuscript in the library of the *Marquis of*

*Lansdowne*, the census of Ireland, taken in 1659, showed only 500,000 people, but in the next century and a half it had increased to 8,000,000, most of whom lived in abject poverty. They found that they could obtain a better living by migrating, and the population has steadily gone down until it is now reduced about half. The survivors would never be content to live as their ancestors, so that, though the amount of food produced is probably more, there is a greater share for each person. The primary causes of this depopulation will be taken up later.

### SUBDIVISION OF FARMS

The following table shows that the more dense the population the smaller are the land holdings:

| | Acres per farm | Population per mile |
|---|---|---|
| Michigan | 86 | 42.2 |
| Ohio | 93 | 102. |
| Indiana | 103 | 70.1 |
| Wisconsin | 115 | 38. |
| Illinois | 127 | 86.1 |
| Missouri | 129 | 45.2 |
| Iowa | 151 | 40.2 |
| Minnesota | 160 | 22.1 |
| Kansas | 181 | 18. |
| Nebraska | 190 | 13.9 |
| South Dakota | 227 | 5.2 |
| North Dakota | 277 | 4.5 |

The States out of line are those with more or less manufacturing interests. It is given to show the reason for the fact that as a country grows older and more saturated, the farms are more and more divided up. The process is constantly going on in our West. But we are a long distance yet from the conditions in the Old World, where individual holdings are exceedingly limited—mere garden patches. This is one of those internal currents which we have mentioned, a constant shifting or oozing of the fluid along the surface to places where it is easier to get a living.

*Mr. L. G. Powers*, Chief Statistician of the Census, has called attention to the greater increase of farms than of farm popu-

lation. It simply means that modern machinery enables the farmer to raise more than formerly, so that as time progresses the number of men required to raise, say, a thousand bushels of wheat, will be smaller and smaller. But the trouble with farm machinery is this, there is always a harvest time when many laborers are needed for a short period, and it will always be impossible to get them, because they demand constant employment and not intermittent. Hence, the natural course is toward the small farm which one owner or tenant can manage with the coöperation of neighbors, independent of floating labor. Even in our now thickly settled East—Maryland, for instance—much farm land is idle for the want of laborers, and the constant tendency is toward the splitting up of farms once worked by slaves. The same phenomenon is now found in the Southwest, which is witnessing the passing of the big ranches, which are being divided up into small grazing ranches and farms. Cattlemen are selling their valuable lands and are drifting south and west, and the former ranges are now producing corn, wheat and oats—land is already too valuable for grazing if there is enough water for crops.

### MIGRATIONS FOR LARGER FARMS

It is remarkable the number of farmers from Missouri, Illinois and Iowa who are selling out and moving further on, to take the place of those who have sold out and moved still further west. A chapter could be written on this great migration, which is filling the country to its saturation point. It seems as though the immigrants arriving on the Atlantic coast are actually pushing the whole mass westward.

The partial disappearance of the old New England families is not entirely due to extinction but to that inevitable "moving on," for they are found all over the United States, their places in the Northeast being taken by later immigrants from Canada or Europe. Canada has the same drift. The western provinces showed a population of 349,646 in 1891, and 888,100 in 1901, but by 1908 there was an enormous increase. The overflow from the United States has also been tremendous, and we will subsequently discuss that subject. The result of this drift from the

East and South is evident in the tremendous wheat production of Western Canada. In some years, particularly 1904 and 1905, the crop was so large that the railroads could not move it. To accommodate the growing needs of the country, railroad construction goes on apace, towns are springing up like mushrooms and new provinces being organized. No attempt to populate this country was formerly made because it was considered unproductive, but it is now destined to be saturated to its fullest capacity. Politicians who predicted that the Canadian Pacific Railroad would fail, and two lines of iron rust mark its folly, are now clamoring for more railroads to fill up the land with people. Wheat is doing what the fur trade failed to do.

# CHAPTER III

## UNDERSATURATION AND SUPERSATURATION

THE FARMERS INCREASING SURPLUS FOOD—UNDERSATURATION OF AMERICA—LOSS OF INDUSTRIES PREVENTS SUPERSATURATION—INDUSTRIES PRODUCE SUPERSATURATION—DENSITY AND PRODUCTIVENESS—INCREASE OF URBAN POPULATION—DECREASE OF WESTERN DRIFT—SPECIALIZATION OF FARMS.

### THE FARMERS INCREASING SURPLUS FOOD

Primitive man subsisted exclusively on the foods obtained in his immediate neighborhood, for even if he could have imported them he had nothing with which to buy. The basis of civilization is the farmer's ever increasing ability to raise more food than he needs, thus permitting him to sell to men engaged in other pursuits. Commerce is, therefore, essentially a system of trading something for food, and from the dawn of civilization there has been a rising volume of trade which permitted farmers and stockmen to feed more and more men of crowded communities engaged in the manufacture of non-edibles. This division of labor has had the effect of grouping mankind into masses fed from surrounding territory. At first the means of transportation were so poor that the groups were small, as they could be fed from only a small area, but as roads and vehicles became more efficient the villages grew to towns and cities whose food came from immense distances. Rome, for instance, was once fed from a small area, then from all Italy; but she did not become an immense city until she obtained possession of the wheat fields of Egypt, and when she lost that control her population dropped to what could be fed locally. Modern cities have as high as a thousand people per acre, and some blocks even more, and their food comes from farms thousands of miles away.

The effect of civilization, then, is to cause certain areas to be supersaturated, or contain more people than can be fed from the foods of the place, while other areas are undersaturated or contain fewer people than may be supported by its foods. The two groups of populations are not complementary by any means, because famines exist in one place while foods are wasted in others, but the trend of civilization is to increase transportation facilities so greatly that all the surplus of one place will be utilized in others, and every advance in transportation increases the supersaturation of certain places.

Cold storage and other means of preserving foods need only be mentioned in passing, for without these modern inventions the transportation of foods would be impossible in anywhere near their present amounts. England alone uses 300 refrigerator ships to keep her fed, and our cold-storage exports value a quarter billion dollars. As these two phenomena of supersaturation and undersaturation are the basis of national organization, and are bound to have a profound influence in the future evolution of society, it is amazing that they have received so little attention from sociologists and statesmen as to be practically unrecognized. It is, therefore, of vital importance to study them in considerable detail to understand why the northwestern corner of Europe seems destined to be densely packed with humanity fed from all over the world.

## UNDERSATURATION OF AMERICA

When America was discovered it had more Indians than could be fed, for they were constantly at war for hunting land, but it was far from the saturation point for whites. Hence, the increase of white population has been phenomenal, thirty to thirty-five per cent. per decade, though our rate of increase is diminishing because we are approaching our saturation point. Besides feeding our own twenty-eight persons per square mile we export so much food that probably 125,000,000 (thirty-four per mile) could be supported now. A short while ago, our last vacant lot of land—Oklahoma—was wholly without civilized population. "Its growth has been one of the marvels of Western de-

velopment. For an agricultural territory, the population is already large, while the farm products have reached almost incredible proportions. The mineral resources, which are almost untouched, are believed to be most bountiful. The future of such a field is not hard to estimate in a country in which great developments are now but a repetition of recent history."

Americans have contracted the habit of congratulating themselves as being in some way the authors of their great prosperity and enormous population, but it is the result of finding an undersaturated land whose great wealth had never been extracted. The 1900 census report contains the curve of the population increase of several European nations and the United States during the previous hundred years, and clearly shows the rapid increase of our undersaturated country, and the slower increases of European countries which have been saturated since man's origin and whose increase had previously depended upon the slow evolution of food production. In England, for instance, in 1480, when dependence was upon home-grown foods, the population was but 3,700,000; in 1580 it was 4,600,000; in 1680 5,500,000; in 1750, 6,500,000; in 1780 it was 9,500,000, though others estimate the population as less than 9,000,000 in 1800, or an increase of only sixty-six per cent. in 150 years—about four per cent. per decade. From 1480, it averaged only two and five-tenths per cent. per decade. In 1800 a tremendous increase began with her ability to buy and import food, and her rate has been thirteen per cent. per decade. Now she imports three-quarters of her wheat,* and most of her other foods, writers varying in their estimates from one-third to three-quarters, so that her 300 people per square mile is very great supersaturation. If her factories fail or other nations seize her markets, so that she cannot buy food, her population must decrease.

### LOSS OF INDUSTRIES PREVENTS SUPERSATURATION

Ireland is a sad illustration of the disasters following interference with the normal development of industries and trade which cause supersaturation. About 1800, her industries were completely destroyed by adverse English laws, and the people

* Sir W. Crookes.

had to depend upon agriculture with no money to import foods. In 1848, a failure of crops caused a famine, and 1,000,000 deaths. This process of destroying Ireland had been England's national policy for a long time. "Ireland," says *Dean Swift*, writing in 1721, "is the only kingdom I have ever read or heard of, either in ancient or modern story, which was denied the liberty of exporting their native commodities and manufactures wherever they pleased, except to countries at war with their own prince or state; yet the privilege, by the superiority of mere power, is refused to us in the most momentous parts of commerce." *William Pitt* was so anxious to secure markets for English goods, that he said the American colonists should not be allowed to make so much as a horseshoe nail. It was this natural lust for trade to get money to buy food which was really the basis of our revolution. England's policy has had the effect of drawing the surplus Irish into England and America where they can find food. As late as 1900 it was said that, "The depopulation of Ireland, through emigration, goes on apace. Official returns recently gathered show that the number of emigrants who left Irish ports in 1900 was 47,107, or ten and five-tenths per 1,000 of the estimated population of Ireland in the middle of the year, being an increase of 3,347 as compared with the number departing in 1899. The total number of emigrants who left Irish ports from May 1, 1851 (the date at which the returns began), to December 31, 1900, is 3,841,419."*

Ireland contains many races, and in spite of the wonderful mental abilities of some, it is true that a large class are of such very low order of intelligence, that they cannot raise their saturation point unassisted. Hence there are 15,000,000 acres of good, arable land which are not cultivated now. England is looking to this as a future food supply, to still further increase her own density of population, particularly that of London.

* "It is interesting, however, to note that not all who quit the Emerald Isle seek fresh homes on the American side of the Atlantic. In 1900 no fewer than 6,050 natives left Ireland with the intention of settling permanently in Great Britain. Of these 4,123 left for England and Wales, and 1,927 for Scotland, the average for the four preceding years being 1,757 and 1,030 respectively. The number of persons who leave England and Scotland for permanent residence in Ireland is very small. On the other hand, the annual exodus from Scotland to England is considerable."

*Harper's Weekly* of May 2, 1903, published a map showing a scheme of this sort devised by *Lord Iveagh* and *Mr. W. J. Pirrie*, by which they were to transport the farm products to local centers by motor cars, thence to the seaboard on electric lines and thence to London. It will, of course, increase the density of each land—more supersaturation at home, and a higher saturation point in Ireland.

## INDUSTRIES PRODUCE SUPERSATURATION

The European populations increasing the most during the past century have been the manufacturing and food importing ones as a rule, such as Belgium three and a half fold, Denmark and the United Kingdom three, Germany two and three-fourths, Holland two and a half, while agricultural Spain added but fifty per cent. to her people and Turkey sixteen.

Holland is probably the first place, or one of the first places, invaded by the Teutonic type from the dark forest regions of the cradle of the Aryan race, and these invaders probably found the land thinly occupied by the brunet types which had followed the retreating ice cap before Teutonic blonds arose. Anyhow, this little corner of the territory has been settled a long time by Aryans, who have been pouring out of their original home to our certain knowledge, for some thousands of years. It is one of the most densely settled areas in the world, supersaturated and importing foods. It cannot colonize now, so its expansion is taking a novel direction, that of building a wall around the Zuyder Zee and pumping out the water so as to make farming country enough to occupy the labors of 50,000 people—the most stupendous piece of engineering ever undertaken—increasing the land area of the nation by a tenth.

Supersaturation in Germany is illustrated by the scarcity and high price of meat—called "The German Meat Famine." It is impossible to feed the teeming masses on home products, and importations are necessary. Unfortunately, the Agrarian party for self protection, demands a prohibitive tariff on meats, and as the local market cannot supply the demand, prices rose to forty-four cents a pound for beef in the fall of 1902. Three

years later, pork was twenty-four cents a pound. If we take into account the wages of the working men in Germany this was equivalent to beef at $1.00 a pound in the United States. We need not fear the competition of an underfed race, and the implacable hatred in Germany for American pork and beef is a blessing in disguise, for if they freely imported these and other nitrogen foods, they could exist in manufacturing masses, which at their low rate of wages, would seriously embarrass our markets. We can only wish that they will continue their suicidal policy of national starvation. At present, the great majority of the peasantry of Europe are too poor to buy our meats if there is a high tariff on them. Press dispatches constantly harp upon this meat famine, describing not only the widespread use of horseflesh, the establishment of rabbit markets, the cultivation of fisheries, and even the resort here and there to dog flesh. The present German agitation for free imports is precisely the same as that for the repeal of the corn laws in England, so that factory workers could import food. The landlords in each case demanded protection. If the free traders win, and the country removes duties on importations of meat, we can safely predict a tremendous supersaturation, for with their cheap labor they can undersell us in the markets of the world and get money to buy our beef and wheat, as the English do. This policy will enrich our farmers and kill some of our factories—the present German policy is doing the opposite.

The Norwegians, likewise, are too numerous for their food supply, and must import $15,250,000 worth of bread-stuffs for which they pay with the profits of their enormous carrying trade. They are the professional seamen of the world, descendants of the Vikings, and though numbering but 2,250,000 people, they have the fourth largest merchant marine in the world, most of it serving foreign nations. Their ships total 1,500,000 tons, a carrying capacity exceeded by only Great Britain, the United States and Germany.

Cuba has 1,500,000 people and suffers now and then for food, but she can support 15,000,000 if she can import foods paid for with the sugar and tobacco, which the land is capable of raising. She certainly cannot raise food for so many, and it is doubtful

whether these people can compete with the better organized laborers of the North unless the brain work is done for them.

### DENSITY AND PRODUCTIVENESS

The number of people per square mile in the below-mentioned countries shows that though the old world has always been saturated, the density depends upon productiveness as well as ability to import food paid for by manufactures.

POPULATION PER SQUARE MILE, UNITED STATES TREASURY REPORT, MARCH, 1901

| | |
|---|---|
| Canada | 1.06 |
| Australia | 1.45 |
| Argentine | 2.91 |
| Bolivia | 3.56 |
| Venezuela | 4.37 |
| Brazil | 4.46 |
| Peru | 6.63 |
| Paraguay | 6.69 |
| Columbia | 7.92 |
| Honduras | 8.80 |
| Nicaragua | 10.16 |
| Ecuador | 10.58 |
| Chile | 10.69 |
| Uruguay | 11.65 |
| Costa Rica | 13.04 |
| Russia (including Asiatic dominions) | 14.90 |
| British Colonies (excluding Canada and India) | 15.35 |
| Mexico | 16.47 |
| Norway | 17.05 |
| Turkey (Europe, Asia and Africa) | 22.34 |
| Guatemala | 24.82 |
| United States | 25.69 |
| Sweden | 29.48 |
| Spain | 91.50 |
| China | 94.82 |
| Greece | 97.20 |
| Roumania | 122.40 |
| Servia | 128.70 |
| Portugal | 129.03 |
| Denmark | 151.08 |
| Hungary | 151.57 |
| Austria Hungary | 185.73 |
| France | 188.70 |

| | |
|---|---|
| Switzerland | 195.30 |
| India (excluding Feudatory States) | 207.43 |
| Austria | 222.59 |
| German Empire | 268.00 |
| Italy | 287.92 |
| Japan | 296.30 |
| United Kingdom | 338.00 |
| Netherlands | 406 40 |
| Belgium | 586.48 |
| Egypt (including only settled part of valley and delta) | 722.75 |

Is it possible for us to become supersaturated and be compelled to import food like England? All other parts of the world now with a surplus of foods—our competitors in wheat and meats—are increasing to their saturation points as we are, and eventually there will be no place from which we can buy and import. Hence, our population, unlike England's, may never exceed the saturation point. It is a less vital necessity for us to sell our goods than for the English, for should we succeed in invading her markets and underselling her in all things, as we now do in a few things, then English population will drop to its saturation point, and that will allow us to increase to our saturation point, but not beyond it.

### INCREASE OF URBAN POPULATION

The difference between a supersaturated manufacturing population and an undersaturated agricultural one, is expressed in the proportion of the population in the towns. Western Europe is a huge manufacturing city. In England, for instance, seventy-one per cent. of the people are urban, while in Russia only fifteen per cent., and in the United States it is about fifty per cent.*

In the United States during the nineteenth century the urban population increased fifteen fold, while the city population increased 150 fold. There were but sixteen cities of over 4,000

* "The population of the rural districts of England is beginning to cause serious concern to the government. From statistics recently collated it is learned that in 1801, 36 per cent. of the population lived in towns of 1,000 inhabitants and upward, whereas in 1891, 64 per cent. of the population inhabited towns exceeding 4,000 in population. The rural population in 1891 on 31,577,000 acres was only 5,534,000 persons out of a total population of 29,002,525. It will be seen from these latter figures that less than one-fifth of the whole people live in the country and are engaged in rural occupations."

in 1800, but in 1900 there were 1,084. The twenty largest towns then held 250,000, the largest twenty now hold 12,000,000. Though the greatest per cent. of increase has been in the States still being settled in the West, the next greatest have been the manufacturing ones, and the States can be approximately thus divided into three groups: new, manufacturing, and old. In the middle group there is the greatest density per mile, largest number of cities, and most of the supersaturation.

Bulletin four of the 1900 census of the United States mentions several facts which have a distinct bearing upon the saturation point of a country which is being filled up with a new civilization. For instance, Argentine is the only country which has a more rapid growth than that of the United States, which is double the average of Europe; nearly double that of Canada, one-sixth greater than Mexico, and one-tenth more than that of Australia. Our highest rates of increase are in the West, of course, yet the South has a greater rate than the North. Nevertheless, there is cumulating evidence that in all parts of the country the rates are approaching an equality, that is, the country is approaching saturation and the rate of increase is proportional to the increased food production. Moreover, the rates of increase on the two sides of the Atlantic are now approaching an equality for the same reason.

## DECREASE OF WESTERN DRIFT

The gradual decrease in the rate at which our center of population is traveling west gives a good idea of the approaching saturation of the country as a whole. According to the Census Bureau, the movement in the ten years ending in 1900, was only fourteen miles westward and two and a half southward—the smallest movement in our history as a nation. For the first time has the South increased at a greater rate than the North, and this is due, of course, to its manufactures. Indeed, most of our Southern States have been supersaturated for a long time, for they have been importing foods in exchange for cotton and tobacco. Iron now enables them to import still more. If Southern statesmen had known a little about the supersatura-

tion of their country, and the impossibility of feeding a huge army, the Civil War would have been prevented.*

| States | Density per mile | No. of cities over 4,000 | Per cent. Urban | Per cent. increase of population from 1890 to 1900, average 20.9 |
|---|---|---|---|---|
| Oklahoma | .... | 2 | 5.3 | 544.2 |
| Indian Territory | .... | 2 | 2.5 | 117.5 |
| Arizona | 1.1 | 2 | 10.7 | 104.9 |
| Alaska | 0.1 | .... | .... | 97.9 |
| Idaho | 1.9 | 2 | 6.2 | 91.7 |
| Montana | 1.7 | 5 | 29.6 | 84.1 |
| North Dakota | 4.5 | 2 | 5.4 | 74.7 |
| Wyoming | 0.9 | 3 | 28.8 | 52.4 |
| Washington | 7.7 | 8 | 36.4 | 48.3 |
| Texas | 11.6 | 36 | 15.0 | 36.4 |
| Florida | 9.7 | 6 | 16.6 | 35.0 |
| Minnesota | 22.1 | 19 | 30.9 | 34.5 |
| Utah | 3.4 | 4 | 29.5 | 33.1 |
| Oregon | 4.4 | 5 | 27.6 | 31.8 |
| Colorado | 5.2 | 8 | 41.2 | 30.9 |
| New Jersey | 250.3 | 49 | 67.6 | 30.4 |
| New Mexico | .... | 2 | 6.1 | 27.2 |
| Illinois | 86.1 | 66 | 51.0 | 26.0 |
| West Virginia | 38.9 | 11 | 11.6 | 25.7 |
| Massachusetts | 349.0 | 56 | 76.1 | 25.2 |
| Rhode Island | 407.0 | 10 | 86.2 | 24.0 |
| Louisiana | 30.4 | 9 | 25.1 | 23.5 |
| California | 9.5 | 24 | 48.9 | 22.9 |
| Wisconsin | 38.0 | 37 | 34.5 | 22.7 |
| South Dakota | 5.2 | 5 | 7.1 | 22.1 |
| Connecticut | 187.5 | 31 | 68.5 | 21.7 |
| New York | 152.6 | 83 | 71.3 | 21.2 |
| Alabama | 35.5 | 16 | 9.9 | 20.8 |
| District Columbia | .... | 1 | 100.0 | 20.9 |
| Georgia | 37.6 | 19 | 14.3 | 20.6 |
| Mississippi | 33.5 | 10 | 5.3 | 20.2 |
| Pennsylvania | 140.1 | 119 | 51.1 | 19.9 |
| North Carolina | 39.0 | 16 | 11.7 | 17.1 |
| Iowa | 40.2 | 33 | 20.5 | 16.7 |
| South Carolina | 44.4 | 17 | 8.0 | 16.4 |
| Arkansas | 24.7 | 8 | 6.9 | 16.25 |
| Missouri | 45.2 | 35 | 34.9 | 16.0 |
| Michigan | 42.2 | 55 | 37.2 | 15.6 |
| Kentucky | 53.7 | 20 | 19.6 | 15.5 |
| Indiana | 70.1 | 52 | 30.7 | 14.8 |
| Tennessee | 48.4 | 9 | 14.1 | 14.3 |
| Maryland | 120.5 | 8 | 48.2 | 14.2 |
| Ohio | 102.0 | 83 | 45.9 | 13.2 |

* "Prior to the Civil War the Northern States nearly doubled in population with each twenty years, while in the Southern States the increase of population was only about two-thirds as great. Since 1860 the rate of growth in both parts of the country has been much less, but while the rate of growth in the North has decreased steadily, that in the South during the twenty years, from 1860 to 1880, has been slightly less."

| States | Density per mile | No. of cities over 4,000 | Per cent. Urban | Per cent. increase of population from 1890 to 1900, average 20.9 |
|---|---|---|---|---|
| Virginia | 46.2 | 16 | 16.5 | 12.0 |
| Delaware | 94.3 | 1 | 41.6 | 9.6 |
| New Hampshire | 45.7 | 11 | 41.8 | 9.3 |
| Maine | 23.2 | 21 | 33.4 | 5.0 |
| Vermont | 37.6 | 9 | 20.0 | 3.3 |
| Kansas | 18.0 | 25 | 9.2 | 3.0 |
| Nebraska (overestimated in 1890) | .... | 11 | 7.1 | 0.9 |
| Nevada | 0.4 | 1 | 10.7 | *7.5 |

* Decrease.

This table shows that the less an area is saturated, the greater is the increase. The old manufacturing States have, of course, increased out of proportion to the old agricultural States, like Kansas and Nebraska, and are now supersaturated, importing food. Nevada is a case of supersaturation followed by a decrease from loss of mines. The natural increase of the population of the Eastern States has drifted West for over a century. The exodus from New England has been enormous. The arid regions having so few people per mile, of course increase as rapidly as irrigation and other means increase the amount of cultivated land.

## SPECIALIZATION OF FARMS

It is often asked why a place will import food when it can raise it. This is only a question of money-making. If a farm can net $10,000 raising tobacco, the owner would be foolish to turn it into a potato farm and net only $500 a year. Thus the Philippines, at present, are supersaturated because they can better afford to import rice and other foods, paying for them with hemp, tobacco, etc., than they could afford to raise only food. They make more money by the present system and support more people. It is a parallel case to Cuba. The reverse side is not so pleasant, for interfere just a little with the industries so that food cannot be bought and there must be famine, such as has repeatedly threatened several provinces in the Philippines, and quite recently, too.

Hence, it is evident that every part of the world which can produce something needed by the rest of the world, is destined to be supersaturated, and import food. Some parts will always be food producers, and will sell abroad even though there be many starving at home. The manufacturing nations will be those which can sell the cheapest to the world, and these will be able to buy the foods. The industrial victory, of course, will go to the races with the most brains.

# CHAPTER IV

## EVIDENCES OF UNIVERSAL OVERPOPULATION

SOME STARVE WHERE FOOD IS PLENTIFUL—LOW WAGES IN DENSE POPULATIONS—CHEAPNESS OF LIFE IN CROWDED MASSES—INSUFFICIENT HOUSING—URBAN OVERCROWDING—MEDIEVAL OVERCROWDING—POVERTY OF THE UNFIT—WEALTH OF THE EFFICIENT—THE UNEMPLOYABLE UNEMPLOYED—GRADUAL UPLIFTING OF THE EFFICIENT—LABOR COMBINATIONS DUE TO OVERCROWDING—SURPLUS WORKMEN NECESSARY—THE NECESSITY FOR POVERTY—POVERTY IRREMEDIABLE—DISEASES OF THE UNFIT—STARVING THE CHILDREN—FAMINES—POVERTY OF THE EARLY CHRISTIANS.

### SOME STARVE WHERE FOOD IS PLENTIFUL

Overpopulation means that some of the people cannot obtain sufficient food. There have been places where, at times, there was more than plenty for every person, as in colonial New England, for instance, but such a state of affairs is always temporary as it is unnatural. As a rule, every country in the world is overpopulated, not only now but has been so ever since man existed. Large birth rates made the condition inevitable. It has no relation whatever to the amount of food raised or which could be raised, for no country produces to its limit, and the sufferers are exclusively those who are failing in the struggle for existence.

The difference between supersaturation and overpopulation must be kept in mind. Supersaturation merely means that food is imported as in England, or in Virginia and the Philippines, where enough cannot be raised, or it is cheaper to devote the land to more profitable crops, like tobacco. Overpopulation exists whether the place is saturated as in Central Europe, supersaturated as in England, or undersaturated as in British Columbia. The Russian religious fanatics, for instance, were starving in Canada at the very places into which streams of Americans are now pouring to settle. Density per mile gives no

information as to the amount of overpopulation, for savages thinly settled may be decimated in lean years by reason of overcrowding, where civilized people subsequently existed in dense masses. The 300 per mile in England is not as overcrowded as the alleged ninety-five per mile in China, for in the latter country starvation daily claims its victims, and it is to be noted that China exports immense quantities of rice, because its owners get more for it than starving Chinamen can afford to pay.

The pre-Columbian Indian was surrounded by food in plenty but could not get it. He was too overcrowded for his simple methods of securing food, and he was always at war for elbow room. In modern city life, we see the same inability to get the food which proportionally exists in as great profusion as it did for the starving Indians. Vast stores of beef and wheat leave the docks of New York and Baltimore, and, within a few hundred yards, there are thousands in want who cannot buy. It was shown by charity workers in New York city in 1908 that there were 12,000 women unable to nurse their babies by reason of semi-starvation and overwork—"abject specimens of hunger"—and yet nearby rivers of milk were out of reach. Milk was distributed to keep alive some of these infants whose parents could not raise them, and the depots required large donations.

In Russia, also, there are starving peasants and periodical famines, yet an exportation of food. *Frank G. Carpenter* in one of his letters, says:

"They send train loads of game birds from Siberia to the markets of Europe and I know that the export of poultry is so enormous that it forms an important freight item. More than 200,000 tons of geese, chickens and eggs are carried over the railroad in a year and the exports of this kind to other parts of Europe now amount to almost $25,000,000 annually. The eggs exported alone bring in about $15,000,000, while the live geese sent to Germany are sold for some million dollars more. A great many pigeons are being raised and also ducks, turkeys and pheasants. Some of the larger estates have begun to breed partridges, quails and grouse, and others have great flocks of half wild pheasants which they raise for the market. As to eggs, 145,000 tons

are now annually carried over the railroads, and this traffic is steadily increasing. Most of them go to Germany and Austria, a large part to Great Britain and some to Belgium and Holland. Almost three million pounds of eggs are exported in bulk, the eggs being broken and the yolks separated from the whites. The yolks go to Germany, Denmark, England and Holland and the whites to Germany and Great Britain." It is also reported that by 1899 the Siberian Railroad was transporting a fabulous number of tons of wheat to Europe, a granary indeed which could stop our sales to Europe. Yet *Colliers* for January 9, 1904, says: "The heavy floods in St. Petersburg recently drove to the surface 250,000 people who prey upon the tolerance of householders by living in their cellars. The return to underground lodgings of the army of illy nourished persons has added enormously to a death rate which was already much larger than that of any other Christian capital. It is part of an unwritten code that a lady or gentleman should not know where cellars, garrets, laundry rooms, or servant's quarters are, and a genuine St. Petersburg householder never does know from one year's end to another."

The same conditions exist in Japan,* which exports thousands of tons of fish yearly to other countries, but in 1906 there were a million people starving to death because unable to buy the fish sold to wealthier foreigners. The crowding of Japan is seen in the fact that of the whole land, only fifteen and seven-tenths per cent. is arable (about 15,000,000 acres), fifty-five per cent. of the farmers cultivate less than two acres; thirty per cent. have farms of two to three and three-quarter acres. As every inch of ground seems to be utilized to its utmost, in some places two or even three crops being raised annually, it is evident that the increased population needed for the growing factories and mills must subsist on imported foods, as in England, making another similarity between these two nations, for Japan will soon be supersaturated. A Japanese socialist *Kiiche Kaneko*, has drawn a doleful picture of overpopulation in that country

* Stephen England (*London Daily Mail*), writing of their terrible overcrowding, says: "In Tokio not fewer than 200,000 people seldom, if ever, know of a certainty where the necessities of the next day will come from, and throughout the land the great majority are too poor to eat rice. The high grade rice grown in the Islands is exported to the last sack, and inferior rice imported for those who can afford it."

with the consequent cheapness of life and labor. His article is tinged with an unhappy antagonism to constituted authority, and he does not seem to know that the same conditions have existed in the Islands as far back as we have any knowledge.

## LOW WAGES IN DENSE POPULATIONS

This brings us to one of the means of judging of overpopulation—the wages of labor. In undersaturated countries, like America, the demand is great and laborers few, and by the law of supply and demand the wages are high. As the laborers increase in number and fill the demand, the wages diminish, so that in the most overpopulated countries men will work almost for their keep, and in China and India the overpopulation is so great that work is not available, and men devote their lives to the most trivial and childish of occupations to make enough money to buy food. Of course, the worst overpopulation is found where the people are of so little intelligence that they are inefficient workmen. They accomplish little and must expect little. The Filipino mechanics receive twenty cents a day when wages are very high, and for the amount they accomplish they are overpaid. Economists have studied the stupid laborers of Europe and found that though they receive but a fraction of the wages of an American, they are overpaid for the amount of work they accomplish. They cannot utilize machinery by means of which an intelligent man can do so much. The Chinese shoemaker labors over a pair of shoes for many days, and in the end gets less for the shoes than an American receives, but he gets more for his work than the American workmen in shoe factories who accomplishes as much in a few minutes.

In Germany, the same conditions exist among the home workers (*heimarbeiter*). Whole families, including the little children, work from ten to sixteen hours a day, making toys, and receive but one or two cents an hour. At other places, harmonicas are made; at others, corsets, and so on throughout a long list of industries—some hundreds of thousands of children helping their parents secure enough food to keep body and soul together. No wonder there is such an exodus to less satu-

rated countries. Our sweatshops are the only places where similar conditions prevail.

Petty economies are often an index of the severity of the struggle for existence due to overpopulation. We have all read of the wonderful economies of the Chinese, who save every scrap of food and fuel, and everything which can be put to use. In France saving is also a national characteristic. Writers are continually enlarging upon the strict economy and good housekeeping of the French, where nothing goes to waste. In Austria, it is the same. It is said that in the government offices, the necessary economies are actually painful. Every envelope is carefully slit open and used as we use scratch pads, and hundreds of other illustrations might be given. Wasteful methods and extravagances are characteristics of a new country, where population is scarce and food plenty. We cannot understand European economies, but it will not be long before we will, and painfully, too.

### CHEAPNESS OF LIFE IN CROWDED MASSES

Another method of estimating overcrowding is the cheapness of life—but here again low intelligence steps in and lowers its value. In China a life is not worth saving, and death is desired by many; indeed, men will die for a fee to be given to the family. The railroad to Pekin had to stop the payments to families of victims of accidents because so many were committing suicide by purposely "sleeping" on the tracks. In the Philippines life is so cheap that death does not make the slightest impression after the funeral is over. In Pekin every cold morning the carts gather up the dead bodies of beggars, who have died of cold and starvation over night, and it is said the city harbors 80,000 of these wretches. We often wonder why the killing of Chinese soldiers was so quickly forgotten—it made no impression. A million Chinese could be killed and the loss would not be felt in that sodden, gelatinous, inelastic mass—indeed, the Empire would be benefited. Safety for foreigners can only be obtained by an ever-present force. Chinamen are cheaper than beasts of burden and cost less to feed, and are even far cheaper than engines.

No better illustration of the cheapness of human life can be imagined than our method of investigating disease. The United States Government spends untold thousands every year in official investigations of the diseases of domestic animals, but will scarcely recognize work in human diseases. When extermination threatened the cattle in South Africa, the English Government offered £10,000 sterling to a scientist to investigate the matter and propose a remedy, but when "sleeping sickness" began to kill the natives by the hundred thousands, not one penny was appropriated.* It might be put even stronger yet, for Anglo-Saxon democratic governments oppose any appropriation of public funds for the investigation of human pathology. Life is too cheap to waste money this way—if people die, there are that many more positions to be filled by the unemployed, and there are plenty of babies growing up to fill the places. But when cattle die it is a serious matter. In a peasant family, it is a far greater disaster to lose the pig than to lose the baby.

The history of slavery is a ghastly proof of the cheapness of human life in ancient times. After we ceased to kill all those vanquished in war we sold them as slaves, and the market was always overstocked. "After *Lucullus* plundered *Pontus*, a slave brought only four drachmæ or perhaps seventy cents."† "Having all Asia Minor to draw upon for labour, they [the Romans in Sicily] deliberately starved and overworked their field-hands [slaves], since it was cheaper to buy others."‡ Relatively, ancient overpopulation was worse than now, for no such conditions are possible in modern civilization.

## INSUFFICIENT HOUSING

Overcrowding of houses and rooms does not of itself prove the inmates to be underfed—the real test of overpopulation—for they may all be properly nourished, yet it is generally true that overcrowding and underfeeding go hand in hand. Shelter

* E. Ray Lankester, *Quarterly Review*, July, 1904.
† Brooks Adams', "Civilization and Decay," p. 13.
‡ Ibid., p. 16. See also the dreadful details in Wallon's "Histoire de l'Esclavage."

and food are both defective when poverty pinches. Indeed, house-rent is, in a way, a proof of overpopulation. At least, it is the penalty of being born poor. We can well imagine that among primitive cavemen, the strongest would secure the caves and not permit intruders unless paid for the privilege by service of some kind. The babies born in that cave, as soon as they grew to maturity, would have to find other shelter, if crowded out. Rent thus began, and has continued ever since, for few men can supply their children with houses. As in primitive times men raise offspring only to thrust them out like birds from a nest. As no young man can possibly earn enough to build his own house before marriage, it follows that rent is inevitable. Moreover, there were not enough caves for primitive man, and there have never been enough houses. In no part of the world is there a house or apartment for every possible family, and consequently matrimony and the raising of offspring is out of the reach of a certain percentage, which increases with the overpopulation. It is a physical impossibility to build houses to keep pace with increases of population, and indeed it is doubtful if the world is rich enough to do it, if it were possible. Moreover, the lower the man's efficiency the greater proportion of his wage is spent in rent; many of our poor pay out one-fourth of their income for shelter, but in primitive times it was still more.

Here and there, in the rural districts of Europe, the peasantry are still existing like cave men. In Bulgaria, all the members of a family, and often several families, sleep in one room on mats spread on the floor. The Filipinos do the same, indeed, it is a universal phenomenon, and the primitive "dug-out" of our frontiers is practically the same as the majority of the medieval houses of England and Ireland—some of which are still in use

### URBAN OVERCROWDING

In the cities the conditions are worse. In Brussels, for instance, Consul-General *Roosevelt* reports that often ten people occupy a single room; that 4,636 people occupy 2,362 rooms; two-thirds of the tenements being totally deprived of open air.

In Glasgow, in 1908, there were only 162,443 houses, and

fourteen per cent. of the families had to be content with a single room, forty-seven per cent, with two rooms, twenty per cent. with three, and only nineteen per cent. had more than three.*

In Birmingham, in 1904, ten and thirty-three hundredths per cent. of the people were living more than two in a room. In one part (Dudley) seventeen and forty-eight hundredths per cent. were thus crowded.

"There are houses in London where rooms are let on the Box-and-Cox principle, tenants occupying in rotation for eight hours each. Sometimes a young woman will occupy the room by day which is let to a young man by night. People sleep under beds as well as in them, and pay rent for doing so. Evicted families live in sheds until they drift into the workhouse. *Mr. Haw*, a London tenement inspector, declares that one-fifth of the population of London, that is to say, about 900,000 people, are systematically breaking the law against overcrowding."

The London School Board reports that even in ordinary times from 50,000 to 60,000 children come to school too hungry to study. *Mr. Richard Whiteing*, in a book called "No. 5 John Street," a sociological study of the overcrowding of London, written several years ago, makes the following statements which I presume are correct: "Over 100,000 people herd two in a room; nearly 90,000 live three in a box; nay, they are still in thousands as they pig in seven to the four square walls. Hundreds of thousands can afford but two meals a day, and the half-mealers always hungry, are too numerous to reckon." Chicago and New York are rapidly approaching the same state. In a novel, "The Crime of the Century," by *Rodrigues Ottolengui*

* In 1901, according to Meyer ("Municipal Ownership," Macmillan), there was a population of 760,000, and yet there were 91,205 who were crowded in one-room dwellings as follows:

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 26,049 | lived | 3 | to | 1 | room | 11,100 | lived | 6 | to | 1 | room |
| 25,276 | " | 4 | " | " | " | 5,642 | " | 7 | " | " | " |
| 19,535 | " | 5 | " | " | " | 2,336 | " | 8 | " | " | " |

1,267 lived 9 to 12 to 1 room

and there were 194,284 who had homes of two rooms.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6,105 | lived | 5 | to | 2 | rooms | 23,301 | lived | 9 | to | 2 | rooms |
| 57,218 | " | 6 | " | " | " | 11,720 | " | 10 | " | " | " |
| 51,016 | " | 7 | " | " | " | 4,664 | " | 11 | " | " | " |
| 37,784 | " | 8 | " | " | " | 2,436 | " | 12 | " | " | " |

(Putnam Sons), there is an exposition of the overcrowding of New York, differing but little from the above. Indeed, only two and one-quarter per cent. of the families own their homes. In Chicago several families crowd into one room—men, women and children. Floor space is even rented to different men, one of whom sleeps there in the day and the other at night. The dreadful conditions around the stockyards are described by *Upton Sinclair* in his book "The Jungle," and the pitiful conditions elsewhere can be studied in *John Spargo's*, "The Bitter Cry of the Children."

A London letter* says: "There is fearful distress among the working classes in some of the poorer quarters. In West Ham, in particular, there are 12,000 adult males, of whom 2,000 are unmarried, and 3,000 single women out of work., In all, 30,000 sufferers are without food. The most pitiable among these are the infants. They are doubly to be pitied because of the appalling ignorance of the low grade British mother. All principles of hygiene are ignored, and cleanliness is uncommon. I have recently made note of a small lodging house in which the street dirt had accumulated on the floors to such an extent as to require, not a broom, but a shovel for its removal. The kitchen was covered with sewage. One hundred people lived in the house. Bad food, stale fish, contaminated milk, and half-rotten vegetables are the rule."

## MEDIEVAL OVERCROWDING

"Two-thirds of the rural population in England nowadays taste beef perhaps once a month, and have milk, if at all, only in teaspoonfuls with tea."† This is an old, old phenomenon, for *Draper*‡ says of England of about the sixteenth century: "The houses of the rural population were huts covered with straw and thatch; their inmates, if able to procure fresh meat once a week, were considered to be in prosperous circumstances. One half of the families in England could hardly do that. Children six

* *New York Medical Journal*, January 14, 1905.
† James Cantlie: Journal of Tropical Medicine, October 15, 1906.
‡ Intellectual Development of Europe.

years old were not infrequently set to labor. About the time of *Queen Anne*, or a little earlier, the country beyond the Trent was still in a state of barbarism, and near the sources of the Tyne there were people scarcely less savage than American Indians, their half-naked women chanting, while the men with brandished dirks, danced a wild measure." We often read of the dreadful conditions of the poor in overcrowded France of the time of *Louis XIV* and *XV*, and think that the distress was unusual and the cause of the French revolution, but those conditions differ in no respects from modern ones in every other country.

## POVERTY OF THE UNFIT

Poverty of the unfit as a sign of overpopulation is never mentioned by those who write upon the subject—and a library of books has been published on this one topic. The last and best by all odds, is the one written by *Robert Hunter* and published in 1905. It is full of interesting data, which we might quote if we had space, for it is a mine of valuable proofs that there are too many people in the world for the food. He describes those in poverty as in a condition wherein it is not possible to obtain *those necessaries which will permit them to maintain a state of physical efficiency.* They all feel necessity's sharp pinch, though only the most miserable among them are starving or dependent upon charity. The details of the sad picture do not concern us here; we are only interested in his estimate that 10,000,000 people in the United States are in this condition of poverty—unable to get the necessaries of life—one in eight. The editor of *Charities and the Commons* calculates that there is underfeeding in three-fourths of the families in New York City having a less income than $600 a year, and one-third of those having between $600 and $700.

The investigations of *Charles Booth* in England give worse results—thirty per cent. of London's population, or 1,300,000 people, are in poverty, the smaller towns having a less rate and the country districts still less.* Of our 10,000,000 in distress,

* "Life and Labor in London."

*Hunter* says that 4,000,000 are public paupers, and 2,000,000 working men are unemployed four to six months every year, and yet in 1905 over 1,000,000 immigrants poured in to share the poverty because it is less than in Europe.

The number of paupers per 1,000 of our population would give a fair indication of overpopulation were it not for the fact that newly settled States have very few compared to old ones, and also that some places like California, have pauper sick dumped on them. Making due allowance for these disturbing factors, it is evident from the census figures that in a general way pauperism in the United States is proportional to the density of population, and of course the greatest percentage of overpopulation is found in the densest areas.

Over one-quarter of the people of New York get some kind of public or private relief every year—and that's what keeps them alive. In ancient times, they died. Nowadays, the better types are taxed to keep the worst alive, and this would look like survival of the unfit were it not for the fact that survival is the only test of fitness to survive. They are the fittest for our modern maudlin sentimental charity, so frightfully overworked by neurotic busybodies. Every such life saved only increases the burdens of the future, for incompetence to make his own living is the basis of poverty and pauperism, and the children are apt to inherit the disability.

## WEALTH OF THE EFFICIENT

By reason of our natural differences in ability, wealth is unequally distributed. The most efficient hunters secure the game, the best fishermen the fish, the best farmers the crop, the best fighters the land, and the brainiest business men the wealth. In the unconstrained competition which we demand in democracies the wealth naturally goes into the hands of those who can secure it by reason of their intelligence, so that the conditions in America are the same as those in every other civilization, ancient and modern. In ancient Chaldea, 8,000 years ago, the wealthy land owners lived in urban luxury while their estates held hordes of poverty stricken peasants and slaves. In ancient

Egypt we find the same phenomena—fabulous riches of the few, and people starving by the thousands. India has always been noted for the enormous wealth of the upper crust, while famines periodically affected millions. At the present moment economists are worrying over the fact that much, if not most, of the silver of the world is being hoarded in India, and yet we try to relieve the famines which rich Indians ignore. In 1847 France was the richest nation in Europe, yet it had 337,000 beggars.

It is not paradoxical, then, that the greater the prosperity, the greater the poverty of some. In England* it was stated that two-thirds of the wealth produced was absorbed by one-fourth of the nation—£500,000,000 sterling being taken in rents, royalties and dividends alone—while ninety-nine per cent. of wage earners have no property whatever. It is said of the United States† that three-tenths of one per cent. of our families own one-fifth of the wealth, and nine per cent. have nearly three-quarters of it. It is also said that seven-eighths of our families have only one-eighth the wealth, and that one per cent. of the families have more wealth than all the rest of the ninety-nine. In 1903, New York was one of the richest cities in the world, yet in that year 60,403 families—fourteen per cent.—were evicted for non-payment of rent, and ten per cent. of those who died were buried in the Potter's field. The first snow-storm of the winter of 1908 drove hundreds of homeless people to the authorities for shelter, and many were women with babies in their arms, forced into the streets for non-payment of rent.

## THE UNEMPLOYABLE UNEMPLOYED

*Mr. Leroy Scott*‡ has investigated the unemployed of our great cities and lays great stress upon the fact that they are unemployable—unfit for work. As soon as paid they desert the jobs found for them—many do not hold on even that long. His investigation leaves no reasonable doubt that most of our unem-

* Report of Royal Commissioner of Labor, 1894.
† *Political Science Quarterly.*
‡ *World's Work*, 1905.

ployed are the unfit who are being eliminated. He says that fully ninety per cent. of them do not want work. Though there are perhaps 500,000 people in the United States practically starving, yet there must be fully 500,000 households which would welcome them as paid helpers—not servants—if they could only work. The starving could find good homes, clothing, money and food, if they were not so stupid. While the well-to-do are clamoring for helpers, the stupid are starving because they can't help. The servant question is thus boiled down to the old, old struggle for existence, and the suffering of the least fit. Of 60,000 offers of work given to idlers in New York City's bread lines and slums in four years, 1904–1908, only two per cent. accepted.

An experiment by *Mr. Benjamin C. Marsh*, Secretary of the Pennsylvania Society to Protect Children, showed that of 118 men who took charity, saying they were out of work, forty-five disappeared when they learned they could get work, and of thirty-one who were given jobs, only six stuck to their work. There was plenty of work nevertheless, for he put on old clothes himself and in one day secured sixteen jobs to begin work the next day. All this agrees with what is known of the neurasthenic condition of vagabonds. The matter was investigated originally in Belgium, and it was found that all of these unfortunates were nervous defectives. It is said that there are 20,000 hoboes in France who cannot work, and their support costs the country $2,000,000 yearly. It is estimated that we support 150,000 and England 30,000. Investigations of the men seeking aid in the rooms of the Young Men's Christian Association of New York City, showed one-fourth to be well educated, many being college and university men. They were mostly young but unable to stand the stress of life. About three per cent. of London's population are paupers, and the proportion is slightly less in the rest of the kingdom. London alone spends $22,000,000 on them. Nevertheless, many of the stories of suffering in America are unreliable, the Philadelphia Society for Organizing Charity finding few genuine cases of destitution. *Mr. Scott* shows that the last census estimate of 6,500,000 of people engaged in gainful operations who were unemployed part of the

year, or twenty-two per cent. of the working population, is a tremendous overstatement, as it includes the wealthy leisure class, those too old to work or who are normally unemployed part of every year (masons, etc.), and those who are taking a needed rest.

## GRADUAL UPLIFTING OF THE EFFICIENT

There is nothing strange, then, in the fact that though our national wealth increased tremendously from 1890 to 1900, the average wages went down from $445 to $438 per year, while the value of the products increased thirty-one dollars per worker. Labor is more efficient, more plentiful, and cheaper, yet the condition of the efficient is improved every decade, while only the defective suffer.

The following quotation is very much to the point: "The home of the laborer in the nineteenth century contains furniture and utensils which in the fourteenth century would have represented the highest grade of luxury. Employment for the laborer must have been precarious and the pay disgracefully small. Food was scarce and of the kind which contains almost no nourishment. Tools of labor, even of the most advanced trades, were clumsy, inefficient and few in number, as well as hard to get. If the whole stock of a carpenter's tools comprised two broadaxes, an adze, a square and a spoke-shave, how limited must have been the scope of his operations. Agriculture was a farce, for the yield of wheat to the acre was considered good if it reached six bushels. In the fourteenth century people lived in mud huts, with a rough door and no chimney. It was not till a century later that the erection of a chimney was considered more than an indulgence in luxury, a fire commonly being built against the mud-plastered wall of the hut and the smoke escaping through the roof. All furniture was of wood. Most persons slept on straw pallets with a log of wood for a pillow. Even the nobility had no glass in the windows during this time. Cleanliness was not a characteristic of the people, and *Thomas à Becket* was considered more than necessarily nice because he had the floor of his house strewn with fresh straw each day."

The rich in Middle Ages concealed a want of cleanliness in their homes and persons under a profusion of costly scents, and to swarm with vermin was no disgrace. When *Erasmus* visited England in the reign of *Henry VIII* he complained bitterly of the nastiness of the people and attributed the frequent plagues to this cause. He said: "The floors are commonly of clay, strewed with rushes, under which lie unmolested, a collection of beer, grease, fragments, bones, spittle and excrement of cats and dogs, and of everything which is nauseous." The densest ignorance prevailed among the masses. Investigation has led to the conclusion that the average duration of human life at that period was not half what it is at the present day. Bad food and want of cleanliness swept away the people of the Middle Ages by ravages upon their health that the limited skill of the time could not resist. A historian of that time states that there were no less than 20,000 leper hospitals in Europe. It is well to remember when we feel inclined to complain of the hard times in our day, that our present state would have been unheard of opulence 400 years ago.

*John Burns* was probably correct in his statement in England, early in 1906, that conditions were gradually improving all the time. He denied *Joseph Chamberlain's* statement that 1,000,000 ablebodied men were out of employment, and stated that there were only a few thousands. Even the unemployable paupers (800,000, or twenty-five per 1,000 of population), were less than in 1849, when there were over 1,000,000, or sixty-two per 1,000 of population. Civilization improves matters all the time, but the overpopulation still continues, and there are a million in distress, and even if they are not counted to be paupers, they receive some assistance.

There is no difference between ancient and modern Egypt as to overcrowding and poverty except possibly as to degree. It has been estimated that in the high civilization thrust upon the natives by Northern types, irrigation was carried to such an extreme as to create an artificial lake (Maeris), and so much food was produced that the population mounted to 20,000,000 about 2000 B.C., and, though, as previously explained, we may suspect exaggeration in this estimate, there is no doubt that the

land was densely crowded or it would have been impossible to build the pyramids and temples. Riches flowed to Egypt because it sold food abroad, particularly in time of famine, as told in the story of *Joseph*. Nevertheless the native starved. *Maspero* describes the poverty of the masses in his work on "Ancient Egypt" (p. 35), and also the frequent "strikes" among the hungry workmen, who are depicted as saying, "By Amen, by the sovereign whose rage destroys, we will not go back to work," and to *Pharaoh's* scribe they said, "We come, pursued by hunger, pursued by thirst; we have no more clothes, no more oil, no more fish or vegetables. Tell this to *Pharaoh*, our master—tell this to *Pharaoh*, our sovereign—that we may receive the means of living." It almost seems as though Egyptian rulers conceived the vast pyramids and temples to give work to the surplus population not needed on the farms, but idle by reason of the lack of varied industries. The pyramids, then, may really be public works for the unemployed, no different in principle from modern systems of using them on roads and other public improvements.

The overcrowding to-day is exactly the same. The English nation found that the anarchy following French domination was liable to destroy the Suez Canal and check the trade to India. In self-defense the English took control of affairs and the high civilization built up has repeated the old, old story of increasing the food supply and multiplying the population, yet poverty and want abound in spite of the enormously increased wealth. The most pitiful sights on earth are the beggars of Cairo—indeed, it seems to be a city of starvlings. *George Foucart*, writing in the *Nouvelle Revue*, recently said that the conditions are even worse in the rural districts. Nevertheless ancient times saw infinitely more suffering.

### LABOR COMBINATIONS DUE TO OVERCROWDING

Modern labor unions are the direct results of overpopulation. There are too many workmen, and the price of labor must, therefore go down, unless they "corner" the market by uniting to work for only such high wages as would be given if there were

few laborers and great demand for them. The South African diamond mines are managed on the same principle. So many diamonds were produced that the price would have gone down had the mining companies not formed a "union" to "corner" the market. They now keep immense numbers of diamonds idle in their vaults, refusing to sell unless at the price to be obtained if there were few diamonds and great demand. They have driven out all "non-union" miners by buying in all the mines. Likewise, there are too many workmen produced, and they must combine to force up wages, only in this case it is a struggle for existence, while in the diamond case it is a struggle for wealth. No wonder union workmen on strike often try to kill non-union competitors, for it is what our savage ancestors had to do to all outside of their "union" or "clan," if these outsiders attempted to compete by poaching on the clan's hunting ground. It has been extermination or migration, and will remain so until there are no surplus workmen, which may never be.

There is an actual need of idle labor, as we have already mentioned in the case of harvesting the big crops planted by machinery. As the overcrowding has always existed, every enterprise is undertaken with the certainty of obtaining the necessary workmen. If a mill had to shut down every now and then because certain classes of labor were unobtainable, no one would build mills. "Why stand ye here all the day idle?" was said to the laborers in the market place 2,000 years ago. They still crowd the market places. The massing of the unemployed is a modern phenomenon due to the same causes as massing of population in cities. Formerly each village had its unemployed in the "market places" waiting for work, which had to be in the immediate vicinity. At present they can go immense distances, and as soon as the work is finished they return to the modern "market places," but transportation is not yet cheap enough, for we find huge masses of idle labor in the cities while crops rot in the fields because farmers can not get help to harvest them.

All trades, then, are overcrowded. We hear this now as we did in our youth, and as our grandfathers before us. Indeed, the same story is read in all ancient literature when there were but a few people on earth compared to the present numbers.

The professions, too, are overcrowded, and always will be, because there are more men than places, a struggle for existence, and the best at the top. There is always room at the top—never at the bottom of the ladder, where the incompetent stagnate.

### SURPLUS WORKMEN NECESSARY

*Charles Booth** states that the "modern system of industry will not work without some unemployed margin, some reserve of labor," and "for long periods of time large stagnant pools of adult effective labor power must lie rotting in the bodies of their owners, unable to become productive of any form of wealth, because they cannot get access to the material of production," while "facing them in equal idleness are unemployed or underemployed masses of land and capital, mills, mines, etc., which, taken in conjunction with this labor power, are theoretically competent to produce wealth for the satisfaction of human wants."

### THE NECESSITY FOR POVERTY

The great mass of mankind, now as ever, live from hand to mouth, without forethought. They can live only when they work—if they stop for a day there is instant distress. It is the animal way—but it is human, too, none the less. Want constantly presses from behind—and if the pressure lets up, idleness brings decay. This all seems hard and brutal, but it is nature's only way of keeping us alive. No writer ever realizes this one law of nature, and they all think that we can end the poverty and want which keep us healthy, but a moment's thought shows the impossibility of ending it. A wild animal must hunt every day—if he cannot, he dies, and even in zoölogical gardens the death rate is high. With man, the death is slower, and that is the sole difference.

The struggle for existence is now necessary to keep the organism in health, for it is built for such exertion, and must keep it up. As soon as the "strenuous life" ceases, through any cause, atrophy sets in and deterioration goes on to extinction, consequently, we depend on overpopulation for our existence.

* "Life and Labors in London," I, p. 152.

It follows that if we suddenly relieve the stress of overpopulation so that it is easier to make a living, idleness results and great disturbances follow with misery and suffering until the food supply is reduced to such a point that there is not enough for all, and the struggle for existence brings about healthy activity —or, in other words, until the land, though holding fewer people, is again overpopulated. This is beautifully illustrated in the history of England, in 1348, when the great plague killed off half the people. There was such a scarcity of labor that its price rose, and though the price of food rose also, the laborers, becoming so important, indulged in an outburst of self-indulgence, refused to work, and crops rotted in the ground. "As personal services died away it became the interest of the lord to unite the small holdings on his estate into larger ones. The evictions consequent upon this course threw many laborers upon the market, and the sheep farms (established in place of agricultural farms owing to the need of fewer laborers) diminished the number required, while the smaller amount of holdings devoted to agriculture increased the price of food. And so it is not surprising that within the course of a comparatively few years, instead of a scarcity there was a glut of labor; that pauperism increased, and social discontent continued, that vagabondage, with its dangers to society at large, became a difficult problem. The whole lower class in England, down to the time of *Elizabeth*, stood looking into the face of want."* Here, then, was a terrible readjustment by lessening food production, so that even after half the people were destroyed, the population was too great for the lessened supplies of food; that is, there was overpopulation.

### POVERTY IRREMEDIABLE

Under the impression that poverty is remediable, every conceivable suggestion has been made to end it. The Chartists, who attracted so much attention during the dreadful industrial depression of 1830, believed that extension of the franchise would restore prosperity.

While *Mr. Hunter* was blaming our protective tariff for pov-

* Edward Bicknell, *Popular Science Monthly*, May, 1899.

erty in the United States, *Mr. Joseph Chamberlain* was accusing free trade for identical conditions in England, where, he stated, there were 13,000,000 people underfed. Such writers as *Edward Everett Hale** seem to think that the problem will somehow be solved sometime, though no one has ever suggested a reasonable solution. In fact, it cannot be solved, for it is natural that there shall be a large class of unemployed—the basis of the struggle for existence, a condition we cannot prevent.

Hence, there is a widespread opinion that society is, somehow, bound to find work for the idle. The act of 1601 compels "the churchwardens of every parish and four, three or two substantial householders" to meet regularly for the purpose of "setting to work all such persons, married or unmarried, having no means to maintain them, and use no ordinary and daily trade of life to get their living by; and also to raise weekly or otherwise a convenient stock of flax, hemp, wool, thread, iron, and other ware and stuff to set the poor on work." From the time of ancient Egypt and that of *Jack Cade* and *Coxey*, the unemployed have ever gone in mobs to demand work, and the same phenomenon was recently seen in England when the boot makers of Raundes marched to London, abandoning their families to local charity. Yet public works are paid for by taxes on the efficients, and it is not likely that the ninety-three per cent. in employment will always submit to taxation to support those incompetent to support themselves.

## DISEASES OF THE UNFIT

It is said that of every 100,000 well-to-do people, 100 die yearly, and of an equal number of wage earners, 150 die, while of those in poverty 350. These are not due to poverty so much as to the mental and physical defects which caused the failure in the struggle for existence. The well-to-do are born with brains and energy. Even one-fifth of the poorer babies die yearly while only one-twentieth of those born in better circumstances. Disease, to a certain extent, then, is a natural result of overpopulation, for the least fit are the least fed and the least resistant to disease.

* *Charities and the Commons*, June 1, 1907

We have also shown that insanitary surroundings increase with poverty; not wholly due to it, but resulting from the physical inefficiency and stupidity. Consequently we find that disease and death increase as we go down in the scale of economic efficiency. Disease is really both cause and effect. For instance, *Korosi* says of the tuberculosis among the inhabitants of Budapest, that the relative death rates of the well-to-do, moderately well-to-do, poor and paupers are 40.0, 62.7, 77.7 and 97.0, respectively.

The investigations of the Health Authorities of New York City showed that among the poorer classes, nearly half of the school children were sick enough to need medical care, and of these about half had defects of vision or swollen cervical glands. Similar investigations in Edinburgh showed that seventy per cent. of school children were actually diseased, and in London there were equally bad conditions.* There is even a campaign to improve the teeth of the poor, the New York Association for Improving the Condition of the Poor believing this to be a cause of ill health, whereas every physician knows it to be the result. *Dr. Luther H. Gulick,* director of physical training in New York City's schools, asserts† that by a superficial examination he estimates that fully ten per cent. of the children are so deficient mentally as to need special instruction. There are thousands in attendance unable to take the regular course. They have inherited the parental stupidity which caused the poverty.

### STARVING THE CHILDREN

*Mr. John Spargo* has confirmed the statement made by *Hunter*, that so many children in America are underfed—not the 60,000 or 70,000 in New York City alone, but about 3,000,000 in the United States, every city furnishing its large contingent, and he describes the conditions as terrible. In the *Independent* (1905) *Spargo* says:

"Principals and teachers have told me of children giving out, fainting from hunger and, when they were given wholesome and nourishing food, which they ate ravenously, being nauseated

* *New York Medical Record*, August 19, 1905.
† *Medical News*, April 15, 1905.

because they were not used to it. In one school where there is a special class of backward, defective children, provision has been made for feeding them. A fund has been created by the teacher, to which the children contribute their pennies, the balance being made up by the teacher and the principal. Every day at ten o'clock the children get a cup of hot milk each, and three times a week they get the products of the Girls' Cooking Class. Only after feeding them could the teacher begin to make progress with these defectives. She assured me that careful study and inquiry had led to the conclusion that there was generally if not always, under nourishment and consequent physical underdevelopment to account for the mental underdevelopment of the children. Experiments in Boston have shown similar results."

In his book, "The Bitter Cry of the Children," he repeats these statements. After a year of investigation, it was found that the number who go to school breakfastless is not so great as in London, but the alarming thing is the constant underfeeding with its resulting physical deterioration. In one school alone, of 865 children examined, 104 had had no breakfast at all, and fifty-four had had some bread and tea or coffee. In 1908, Chicago reported 15,000 school children always hungry, and 5,000 go to school without breakfast, and there is a demand for funds to feed these children of worthless parents.

It is proper to remark in this place that the cry of the American Indian, in periods of starvation, is to the effect that his "wife and children have nothing to eat." It is a rule in savage life, under such circumstances, to feed the young men and let the children starve. Perhaps the men take it by right of might, but it is also probable that it is a custom leading to tribal survival. If the young men starve themselves in favor of the infants, no one would be strong enough to search for food when the winter is over. Child starvation is the next thing to infanticide, which we will discuss later. The point to remember is, that this savage custom still survives in civilization—the wage earner is fed so that he can work. If he weakens, the whole family starves. As a rule it is found that the children are the greatest sufferers in the poverty stricken class, and are sacri-

ficed unconsciously to keep the father going. We must expect to find a greater underfeeding among the school children than among their parents. It is quite likely that the estimate of 3,000,000 underfed children in this country is well within the limits of fact.

### FAMINES

Starvation is, of course, the main proof of overpopulation. The phenomenon is generally treated in the opposite direction—the population is considered normal but the food deficient. It is self-evident that if 1,000,000,000 people were suddenly to invade the United States they would die of starvation, for the land cannot yet produce enough food for that number, and it would be considered overpopulated. Yet it is difficult for people to understand that less degrees of overcrowding really exist. Consequently, all cases of starvation in certain districts of the world are rather looked upon as exceptional calamities, instead of a universal law of nature affecting every species of living thing. It is a bootless task to mention the details of the various famines, which have been reported in the last few years. Scarcely a month, or even a week, passes that we are not presented with instances in the daily press. It is so common, indeed, that but little attention is paid to the matter unless it becomes calamitous. It is sufficient to mention here that at the present time or within a few months or years, famines or partial famines have occurred in several parts of Russia, as many as 10,000,000 being unable to obtain proper food. Spain has suffered to a great extent, with great mortality—some of the people subsisting on roots—and in one province 1,000,000 people were affected. Reports have been received of similar conditions in parts of Mexico, which have been almost desolated. In the Northern parts of Japan, crop failures in 1905 brought 1,000,000 to starvation, so that aid was urgently needed to keep them alive. In Poland, recently, two bad harvests reduced a large number to the verge of distress. In 1904, several parts of Ireland were famished, and the accounts reminded one of the similar conditions of India. At the same time the missionaries in Macedonia reported that outside aid was necessary or the people in certain

districts could not survive. The subject of famines will be discussed in a subsequent chapter, these few instances being mentioned here merely as proofs of universal overpopulation in every corner of the earth.

## POVERTY OF THE EARLY CHRISTIANS

The proverbs of a people reflect the overcrowded condition of the masses. Thus, the four synoptic Gospels of our New Testament are the best proof we have of the meek and lowly condition of the mass of the Christians of the first century. It is the cry of crowded starving people—the burden of nearly every chapter is that of oppression of the poor by the rich: "Give us this day our daily bread," was a practical prayer—not the symbolical one of the fat Christian. "It is more blessed to give than to receive" could never have been thought out by the rich. The whole book appeals to those in want—"come unto me ye who are weary and heavy laden, and I will give you rest." It is remarkable, then, that the highest and best religion is itself an evidence of constant overpopulation.

# CHAPTER V

## PESTILENCES DUE TO OVERPOPULATION

ENEMIES LIMIT POPULATIONS—CLEANLINESS AND CIVILIZATION—EVOLUTION OF DISEASE GERMS—PLAGUE AND DIRT—TUBERCULOSIS AND OVERCROWDING—CIVILIZATION AVOIDS DISEASE—TYPHOID AN INDEX OF OVERCROWDING—WAR, FAMINE AND PLAGUES.

### ENEMIES LIMIT POPULATIONS

We must now modify the definition of the saturation point, for, in addition to food supply, there are other factors which limit the maximum numbers of any species in a given area. There are many enemies to destroy them—indeed each species, man included, serves as food to some other. Pestilences due to microbic enemies are proofs that there are more men born than can survive. The reverse proposition is not true, though it is generally believed that large birth rates are necessary to repair the destruction of life from diseases. If populations are not dense, pestilences are impossible, as a rule.

A certain tenuity of population of every animal species seems to be necessary for two reasons. In the first place, every species produces excreta which are poisonous to it, and which will kill it off if they are too concentrated. It is like certain low fermentative yeasts which produce alcohol and which will cease their activity as soon as the percentage of alcohol mounts to a given point. In the next place, crowding gives a chance for the spread of fatal parasitic diseases from individual to individual. As a rule, crowding is followed by diseases reducing the numbers to the saturation point, which we thus see is not exactly the number which can be fed, but the number able also to escape enemies. For instance, coffee trees were introduced into Ceylon, and also into Batangas, P. I., and bid fair to make a permanent success, when the "blight" (a fungus) killed them

all off. In Ceylon, it has been found that a few plantations can live, and they are now springing up again, but widely separated and thinner.

Applying these rules to man we find that density of population is strictly dependent upon sanitation. The more dense the population the more elaborate and expensive must be the means of removing our own poisons, or epidemics will thin us out to the proper tenuity. Farmers' boys may be perfectly healthy in the crude sanitation of the farm, but if they cluster together in a camp, and try the same methods, typhoid will wipe them out of existence. Our recent army experiences are too fresh in mind to need recalling. The impossibility of crowding savages, and their great death rate—both due to filthy habits—are mentioned by *H. G. Wells*.* "The real savage is a nest of parasites within and without; he smells, he rots, he starves. Forty is a great age for him."

Instinct is still against vaccination and sanitation, for man's nature is a result of evolution in an isolated state, and he does not yet know how to live in communities. He began crowding into towns and villages long before he knew the results of overcrowding, and there has always been a frightful mortality from crowd diseases, which have become our new enemies in place of the adverse conditions of old. Though savage life is an extremely filthy one, the men are so isolated and the poison is so diluted that it is harmless as compared with modern conditions.

## CLEANLINESS AND CIVILIZATION

The filthiness of all lower classes of civilized men, and of barbarians and savages is not conceivable to one who has not investigated. If savages cluster in groups as dense as barbarians, they die of crowd disease—plagues or epidemics. Barbarous life is a less filthy one, but the men are still isolated, and the poisons so diluted as to be harmless, yet if they cluster into the groups of civilized man, they die off. As man's rate of increase has kept him crowded to a degree beyond his ability to escape his own poisons, we find that history is a long record of

* *Cosmopolitan*, November, 1902.

the epidemics which have thinned out the filthy populations, a tenuity wherein contagion was less easily carried or their poisons were too dilute to be harmful.

For instance, England, in 1348, had but 3,000,000 or 4,000,000 people, and was so frightfully dirty, self-poisoned and overcrowded, that over half were killed by the plague of that year. Previous to *Jenner's* time, according to the estimates of *Bernouilli*, the mathematician, 15,000,000 people died in Europe every twenty-five years from smallpox. It caused ten per cent. of all deaths, and half the deaths of children less than ten. *Macauley* states that in London before vaccination times, it was rare to see an adult unmarked by smallpox. The destruction of life was tremendous, as one-fourth of mankind was thus killed or crippled.

## EVOLUTION OF DISEASE GERMS

It is believed that every microbic disease afflicting man has been evolved through his filthy habits in overcrowded communities. Originally, the germs were all harmless saprophytes occupied in destroying dead organic matter. As filth collected around the habitations, those species of bacteria survived in greatest numbers which were carried to the filth by man himself, and those species were carried best which, by purely accidental variations, originating in some unknown way, were able to live in man for a while. Then those survived in the largest number, which by accidental variation were able to live the longest in man, even if by this parasitic existence they occasionally killed him. Thus typhoid fever is probably a very recent disease, speaking geologically; that is, the ancestor of the bacillus typhosus was probably a harmless saprophyte in the post glacial period. But such changes in species take immense time, we cannot bring them about in our laboratories. We can attenuate bacteria by changing their environment, but they revert to ancestral types as soon as conditions are restored. These speculations are mentioned merely to show the increased certainty that man has always been filthy from overcrowding, owing to a birth rate too large for his condition of culture.

*Dr. G. Archdall Reid** shows the impossibility of savage or barbarous people clustering in dense masses, since they cannot resist infection. There has to be a gradual growth of immunity by killing off the most susceptible through many centuries as with our ancestors, who thus were weeded out by measles, etc. The susceptible died and the resistant lived—and though we contract such diseases now as ever, yet few die. When introduced among savages, measles kills them like a plague, as they have never evolved immunity. He says that for this reason savages are little capable of "achieving civilization," and our civilization is conditioned by our power of resisting certain infectious diseases. *Robert L. Stevenson*† mentions a tribe wiped out by smallpox and consumption. *Reid* mentions a race (Boggara) compelled to live on the desert, scattered, with no trees or water, who can live only in this way, because highly susceptible to all kinds of infectious diseases.

## PLAGUE AND DIRT

The plague of India is a direct result of overcrowding of indescribably filthy people. In Calcutta, as many as 144,000 live in one square mile (London has 36,000 per square mile), 250 living where there are accommodations for only fifty, or less; huts seven feet square accommodate five or more. The germ has such ideal conditions for spreading from rats that it cannot be eradicated. The native is so dirty in his habits that he is not fit to live except in a very sparsely settled land, like our own equally filthy savages in pre-Columbian times. It is reported that the British have finally given up all hope of forcing sanitation upon the Hindu. Even when the reported deaths of plague amounted to nearly 30,000 a week, they were forced to allow the native to contract the disease. The strange new methods of cleanliness were repugnant to him and often ran counter to his religion.

According to a writer in *L'Illustration* (Paris), it is now generally admitted that there is overpopulation in India, and that the present mortality from plague is a beneficial blood-letting.

* "Recent Evolution of Man." † "In the South Seas," p. 27.

The deaths in 1906 were so numerous that the Government stopped reporting them. In 1901 the number of victims was 275,000; in 1902, 580,000; in 1903, 850,000; in 1904, 1,025,000—and the estimate for 1905 was over 2,000,000, and 1907 totaled even more.

It is the same overpopulation that has always existed, for the plague has certainly been known over 2,000 years. In the sixth century it "depopulated towns, turned the country into a desert and made the habitations of man to become the haunts of wild beasts." It remained in Europe over 1,000 years. In 1346, it devastated Crimea; 1347 Constantinople; in 1348, according to *Boccaccio*, it nearly wiped out Florence, where vast estates were left with no known heir, and in 1350 it spread over Europe, killing one-fourth of the people, or 25,000,000. In the eighteenth century Europe was clean enough, or thinly settled enough to keep it out, but Constantinople had eighteen severe epidemics. In one epidemic reported to *Pope Clement*, China lost 13,000,000; India was partly depopulated; in Caramania and Cæsarea none were left alive; Cyprus lost nearly all; ships at sea were left without crews, and throughout Asia nearly 25,000,000 perished. There are many historical records of similar epidemics, with frightful mortality, but they could not have occurred unless communities were overcrowded for their primitive sanitation. Moreover, plague is really a disease of rats transmitted by fleas, and these ancient epidemics show bad sanitation of crowds, for rats never flourish except in such conditions.

### TUBERCULOSIS AND OVERCROWDING

The great white plague (tuberculosis) is a new and modern destroyer of population, claiming more victims than any other disease, more even than the plagues of the Middle Ages. It is said that every seventh death is due to this infection, and that in the working age, fifteen to forty-five, it kills twenty-five per cent., or cripples them: 10,000,000 people now living in the United States are doomed to this death. Yet we are evolving an immunity with the greatest rapidity. The disease did not exist probably among primitive men because they were too

isolated and lived in the open air. With civilization came crowding into houses, and the contagion could be easily carried from one to another. Few, if any, escape infection now, and the susceptible die, while the most resistant recover, to transmit their fortunate ability. We are already so resistant that a large percentage recover. *Naegali* states that ninety-eight per cent. of corpses dead of other diseases show evidence of cured tuberculosis. The death rate has diminished sixty-six per cent. in the last fifty years, and in time it will be as harmless as measles, but it will have to destroy its billions and billions of susceptibles before this stage is reached. Consequently, savages are very susceptible to this disease and melt away as soon as it is introduced among them, particularly if they are crowded into civilized density. The Hawaiians are said to have decreased from 100,000 in 1836, to 30,000 to-day, chiefly from tuberculosis.

The history of the evolution of the house, as brought out by *Dr. Geo. M. Gould*, leaves little doubt that the habit of crowding into these primitive shelters caused the evolution of the tubercle bacillus from some other harmless organism, and that the disease is only a few thousand years old. Moreover, those who have been most confined to houses—the Jews—have suffered the greatest mortality, but have evolved the greatest immunity through survival of the fittest—an immunity which they promptly lose if they live in denser crowds than they are fitted for.

In the enormous literature created by the anti-tuberculosis crusade, there is scarcely a word as to the fact that this disease has existed as a plague only a very short time, and is already disappearing. Prior to the nineteenth century houses were crude, open to the air and unheated. People lived more in the open, and consumption was a negligible factor in killing us off. Only after we began building tighter houses, and warmed them, did we invite the disease. Studies of American families have shown them to have been healthy and strong while living in log huts, so open that snow drifted on the beds, but by the middle of the nineteenth century, when prosperity caused the erection of warmed houses, the families began to melt from consumption. The mortality also rose with the evolution of modern cities, dur-

ing the middle of the century. The plague, therefore, is in great part due to the crowding made possible by the food supplies of America. Moreover, it must run its course, as the poor cannot possibly obtain the cure. Imagine a father whose wages are ten dollars a week, and who has four children, furnishing the sick one with eggs at forty cents a dozen and milk at ten cents a quart. Overpopulation causes the disease and prevents its cure. Even charity cannot cure them all—there is not wealth enough for the purpose—and even if they are cured, they must relapse upon return to work. Infection is still a sentence of death for most of the poor.

### CIVILIZATION AVOIDS DISEASE

"Sleeping sickness" destroys millions in Africa and has always prevented dense populations because the natives did not know how to avoid it. Modern science has discovered the cause and method of transmission, and under white man's control, it is quite likely that the disease will disappear. Similarly typhus fever attacked European crowds, but it has mysteriously disappeared, though we do not know why. Somehow modern sanitation keeps it out or renders us immune.

Cholera occasionally sweeps around the world, wiping out populations too concentrated to escape infecting each other. In Russia, for instance, in 1892 to 1894, it is said that 800,000 died of this disease, and in 1902-1903 several hundred thousands—no one knows exactly how many. This disease is now harmless in the higher civilized communities who know how to get good water and dispose of their excreta.

In the Philippines, though the native keeps his person scrupulously clean, the state of sanitation is low, as he is utterly unable to understand what we mean by our protective measures. Diseases are endemic and the population far beyond its saturation point. Smallpox was formerly endemic, but as every one had had it, the adults were nearly all immune, and it was confined mostly to the infants. It was like measles—a disease of infancy—and the adult native did not mind it. To be sure it killed about one-third or one-half of the little ones, but this was

of no moment when each young woman has a new baby every year or two. If smallpox did not kill them something else would —all could not possibly survive. As a measure of self protection we vaccinated all the natives. By these means and other sanitary measures we were congratulating ourselves that we had saved 500,000 lives in the four years of our occupation. But what good was it? Cholera entered and in a few months destroyed 250,000 or more. Plague does not seem able to flourish in the Philippines, perhaps because the people live in houses on stilts, protected by this isolation from rat fleas. In Asia the people huddle in huts on the ground where they can harbor the pests and be infected.

In Porto Rico we stopped the ravages of smallpox and gained great renown for it. Have the natives profited, and do they thank us? The following news dispatch can answer: "United States officials in Porto Rico do not make concealment of their belief that the present wholesale emigration from the Island is a good thing for Porto Rico. They say that any method of relieving the crowded conditions of the Island, which are largely responsible for the misery and suffering everywhere manifest, will be a good thing for those who are left." But they need not worry over Porto Ricans, who can import food in plenty if they will only work their plantations and make something they can sell.

### TYPHOID AN INDEX OF OVERCROWDING

In America we are now suffering from filthy habits normal to savages. By reason of the tenuity of population, we formerly adopted methods of disposal of our sewage, which are wholly inadmissible in crowded communities, that is, we simply poured it into the water supply. A man turned his sewage into the creek, because there was no one below him who used the water. Hence, when we increased, we found all the rivers polluted. The result is dreadful, for there is scarcely a city in the eastern part of the United States which has any drinking water. We all use diluted sewage, and every now and then we hear of a dreadful epidemic from infected water.

We must change all the sewer systems or else buy up immense

tracts of land as water collectors for each city. Poor, silly Philadelphia spends millions doctoring up some dirty sewage trying to make it fit to drink, instead of doing something cheaper and more sensible when they had the chance—buying pure water at a distance and bringing it to the city. We cannot violate the law of density of population without suffering, and a man must have 150 gallons of pure water daily, whether he is in a country and uses a creek, or in a city and uses a spigot. This one problem will seriously limit the density of our population until we forbid stream pollution.

In London they are waking up to the same question of overpopulation in regard to sanitation. "What is bound to become one of the greatest problems of the twentieth century has suddenly confronted that city in a rather peculiar form. It consists of one of Nature's warnings that the limit has been reached, beyond which it is impossible to crowd a greater population than is now comprised in the world's metropolis [unless better sanitary arrangements are made]. *Doctor Colingridge*, the chief medical officer of London, has issued a report in which he announces that all of the Thames fisheries, including the estuary, are contaminated with the bacilli of typhoid fever. His condemnation includes the famous Whitstable oysterbeds, where twenty per cent. of the oysters examined were found to be infected. A ban has also been pronounced against whitebait, shrimps, smelts and cockles. Contamination by sewage was found fifty miles away from London in the drainage outfall, while an even worse state of affairs existed at other points on the English coast from which shellfish are supplied to the markets. The infection in these cases was due altogether to local sewage. This, however, is a secondary problem to the more serious one of the London water supply. It is now admitted that the Thames valley with its contributing streams, including artesian wells, is inadequate for London's vast population, and even ordinary drought produces serious inconvenience, as well as sanitary and fire perils. A great aqueduct to Wales at fabulous expense is the only radical solution suggested, but this, however, would render the drainage problem still more serious. Meantime, London continues to grow. Nature has already begun to

inflict her penalties, and it will be one of the most interesting features of human history in the next few decades to watch on the banks of the Thames one of the greatest struggles that civilization has ever undertaken."

New York City has the same problem as London, but in the American metropolis, it is a question of the actual loss of the harbor which is being filled up with sewage deposits. Of course, the harbor will be preserved and made better, but unless immense sums are spent on the modern destruction of sewage, epidemics will limit the density of population. Even now the loss of life is deplorable from the spread of diseases from sewer outlets through the agency of flies.

The trend of civilization, then, is to make crowding safe, and every new sanitary invention permits more people to herd into a limited area. Supersaturation is greater every decade. New York City, for instance, by bringing in water and removing wastes, is able to house a hundredfold more souls than a century ago, and with a constantly diminishing death rate. If her sewers were suddenly discontinued, pestilences would thin out the population to a safe tenuity. Yet even with all which modern science does to remove evils of overcrowdings, we are still herded together too closely. The death rates in Glasgow for those who have homes of four rooms is eleven and two-tenths per 1,000; for three rooms it is thirteen and seven-tenths; two rooms, twenty-one and three-tenths, and thirty-two and seven-tenths for one roomers—lung diseases predominating, of course. Similar differences are found in every city.

## WAR, FAMINE AND PLAGUES

As famines are usually followed by pestilence, the relation of the two is common knowledge, as those enfeebled by starvation are easily killed by infections. But the relation of both famine and plagues to overpopulation is not generally recognized. They are "twin brothers, monsters of human misery," children of the same parents, overpopulation and filth. War necessarily checks food production, and therefore we invariably see the three go hand in hand, war, famine and pestilence.

*Death rates* of the general population from disease, during war, are always higher than in peace, even in the absence of famines and epidemics, for the unsettled and severe conditions increase the endemic diseases and increase the struggle for existence for some time. This is well shown in the death rates in Manila, 1900–1903, for the months of January, February and March:

ANNUAL DEATH RATE PER 1,000

| Month | 1900 | 1901 | 1902 | 1903 |
|---|---|---|---|---|
| January | 50.65 | 36.23 | 30.16 | 23.46 |
| February | 47.08 | 36.69 | 30.81 | 22.05 |
| March | 42.67 | 42.67 | 30.02 | 21.01 |

In our ignorance of the cause of this phenomena, we supposed it to be due to the excellence of American sanitation, and congratulated ourselves upon saving so many lives. Indeed, all civilized cities in the world have essentially the same death rates in peace, with a few exceptions, for it is one of the phenomena of civilization. Rarely is the rate less than seventeen or more than twenty-seven, and it generally hovers around twenty. This rate increases in the cities of the world under savage or barbarous conditions of filth, and where the birth rate is high, as in China. In the latter cities the death rate is probably larger than the birth rate, as it used to be in medieval European cities.

Formerly, cities were all called consumers of population, which poured into them in a constant stream from rural districts, only to melt away in two or three generations. Modern sanitation is ending this loss of life, and it is now safer to live in some cities than in the country. Yet there are other unavoidable, unwholesome factors, which will always melt city families. The breeding place for humanity is the country—after all is said.

# CHAPTER VI

## EVOLUTION OF MAN

EVOLUTION OF THE BRAIN—CRADLES OF THE TWO RACES—TIME OF MAN'S ORIGIN—LENGTH OF LIFE—MIGRATION ALTERS EVOLUTION—MODIFICATIONS DUE TO CHANGE OF ENVIRONMENT—MAN'S EVOLUTION DUE TO OVERPOPULATION.

### EVOLUTION OF THE BRAIN

It is reasoning in a circle to assert that man evolved from lower creatures because of natural selection in a struggle for existence, and then use this fact as proof of the overpopulation which caused the process. Nevertheless, there is not the least doubt that science has conclusively established the fact of the evolution, which could not have occurred unless there had been overpopulation. It is not possible to understand the present evolution of man, and his past migrations, without a very clear conception of his origin, for past and present history are based on the same conditions.

There is no doubt that man's ancestor resembled, in a general way, the present anthropoids or man-like creatures. At some remote period, it so happened that by a change to a glacial climate or some other equally effective cause, it was so much more difficult to find food and to escape his enemies and other adverse conditions, that only the most intelligent survived in each generation, the least intelligent being ruthlessly destroyed by starvation or other means. The next generation inherited the larger brain of the survivors and the size of the brain must have been increased very rapidly from generation to generation. In the course of some thousands of years the process developed a creature sufficiently intelligent to be called man. The old theory that man increased his own brain by exercising it, had to be given up as it had no facts to support it and was like lifting one's

self by the boot straps. It was once taught that he civilized himself without brains to do it, and then grew brains from being civilized. Now we know that civilization did not arise until long after man evolved sufficient brain—evolved by natural selection for the purpose of survival. The civilization of all races is directly proportional to their average brain development, for each does its best with the brains at hand. During the evolution of man the mortality of the fools was dreadful. Civilization is a fool saver. There is no proof, indeed it can be definitely disproved, that exercise of the brain increases the numbers of elements or cells. These proofs do not concern us here, but the reader interested in the matter can find them in an article by the writer on "The Evolution of the Small Brain of Civilized Man," in the *American Journal of Insanity*, July, 1901.

Not only does migration to a milder environment check further increase of brain, but so does civilization also by itself. In the latter case, the more stupid are not killed off, because every one can make a living somehow and the result is an increasing variation. At the present time, therefore, we have as variations from the average, larger and better brains than ever existed before. The average has not increased—probably has decreased owing to the survival of so many of the stupid smaller brained people.

In savage life the average brain is the best for survival because all men must do the same things. Hence, wide variations perish and there is a wonderful similarity in the skulls. If a higher race forces civilization on a lower, as the Spanish did upon the Malay, variations survive and uniformity ceases. *Gustave Le Bon* showed the increasing variations of modern skulls—a generalization based upon the measurements of some thousands.* Consequently, we now have better specialists than ever existed, all coöperating in the division of labor or the orchestration of civilization, and we also have a large number of smaller brains of useful type than existed among our savage ancestors.

* Recherches anatomiques et mathématiques sur les variations de volume des cerveaux et leurs relations avec l'intelligence. Paris, 1879.

## CRADLES OF THE TWO RACES

Scientists are not at all agreed as to the place of man's origin. It was once an article of faith that he arose in Central or Southern Asia, and this belief followed upon finding Aryan languages in Asia, but these are now known to have been taken there from Europe not more than 3,000 or 4,000 years ago.* Others are inclined to an origin in Africa, Europe and even America, and others again believe in more than one center of evolution.

All the facts are best explained by the theory of two separate centers, one in Central Europe and the other in the Central Asian plateau, the two races being kept apart until 10,000 to 15,000 years ago by some barrier such as that enormous inland sea which once extended from the Black Sea to the Arctic, submerging Western Asia, and of which the Caspian is a remnant. Though the types have since been inextricably mixed, there are enough pure races to describe the characteristics. The Eastern or Asian type has a broad face and broad head (brachycephalic), straight hair with round cross-section, and it is an unemotional placid race. The Western or European type has a long face, long head (dolicocephalic), wavy, curly or kinky hair with oval or flat cross-section, and it is an emotional, lively, excitable race.

From Central Asia the Eastern type spread over Asia to all the Pacific islands except, perhaps, Australasia, and thence, very much later, throughout America. The Western type flowed south over the whole of Africa at a very early time when there were far different geographic features between Europe and Africa making such migrations possible, such as that undoubted connection via Sicily. At a comparatively recent period long heads drifted eastward by a southern route into Southern Asia, and are found in India now. After the Siberian Sea was drained by elevation of the land, and some other unknown barriers were removed, there started that western drift of broad heads into Europe by the northern route. It kept up until modern times, creating some of the most terrible history of Europe. So that we have in Europe a wedge-shaped mass of broad-headed descendants of Asiatic invaders, with its base in Eastern Russia

* Taylor, Origin of the Aryans.

and its apex in France, with overflows as far as Scotland and Ireland, and even Spain and Italy. The two types are separated in the Malay Archipelago as sharply as the two types of flora and fauna—Australian and Malaysian. *Wallace* was the first to note and define these types and has mentioned the vast difference between the lively New Guinea men and the quiet Malays.*

Dual origin of closely related animals (either species or varieties) occurs in other animals as well as man. *Nehring* of Berlin, and *Lehmann* determined "that the dromedary and bactarian camel originated in two distinct regions, the former being a subtropical steppe and desert animal and the latter belonging to the subarctic steppes and desert."† This is merely the law of *parallel evolution;* that is, if two separated areas have similarly changing conditions and similar species to give variations each environment necessarily selects the same variations the other does, and they both evolve similar organisms. Given identical conditions, even the same civilizations arise in widely separated places, and this explains why there is a similarity in the evolution of widely separated societies, as those in Africa and primitive America.

## TIME OF MAN'S ORIGIN

The time at which the evolution of man took place is very well fixed. Scientists are almost unanimous in placing the first steps prior to the glacial times during a very long period, some even going to the extreme of giving 600,000 years to the eolithic or protolithic stage higher than the pithecanthropus or ape-man. They are also almost unanimous in opinion that the first sure evidence of a creature we can call man occurs in the earliest glacial epoch, and the estimates vary as to how long ago that was, but it is generally believed that it was at least 250,000 years. It is safe, then, to state that it is not very far from a million years since the first steps from the anthropoid to man. In this pliocene time a tropical climate extended throughout Europe, but it grew colder and colder, and furnished the very

* The Malay Archipelago. † *Science*, February 28, 1902.

conditions of a severe environment necessary to kill off the least intelligent and to evolve a brainy man by natural selection.

There is a current delusion that man was evolved in an environment where life was easy and the climate warm. It is amazing that many scientists hold this view, scientists, too, who know that such a condition could not possibly eliminate the stupid and select the most intelligent. If Africa could have evolved man, the gorillas would not exist there now, for they would long ago have changed into higher types. Nevertheless Africa is very commonly assumed to be the cradle of the race.

Though the Scandinavian ice cap did not extend into Asia, that continent had a cold period also; indeed, we are still finding the frozen carcasses of mammoths imprisoned in the ice of Siberia at this time. The difficulty or impossibility of traveling south over the Hindoo Koosh and other ice-clad mountains, no doubt imprisoned the Eastern type so that evolution occurred at the same time it did in Europe. The geology of Asia points to excessive submergence in glacial times when Europe probably was elevated. The central plateau would then have been insular, and a gradually increasing severity of climate would have produced the severe conditions necessary for human evolution, just as in Europe.

## LENGTH OF LIFE

In 1881, *August Weismann* showed that duration of life was dependent upon the needs of the species,* and that sometimes species could not survive unless the individuals died early —even immediately after egg laying in some cases—and that sometimes when enemies were numerous and slow breeding more advantageous long life was essential, or the species would have perished. Man being in the latter class it rather indicates that his environment was so severe that a large number of offspring was at one time a necessity if two were to survive and raise offspring of their own. He had to live long to do this. This is another form of the law that need of the species is sometimes paramount to the need of the individual in the struggle for existence.

* Essay read before Association of German Naturalists at Salzberg.

We must not confuse maximum length of life with average length of life. In the early savage life, the latter was probably not more than five or ten years on account of the mortality among children, and it is still less than fifteen years in the Philippines, even with large birth rates. Maximum years or *period of senility* on the other hand, is a result of the above law, and the fact that man was a slow breeder, having but one offspring every year or two. The only surviving lines were those that lived long enough—natural selection of those whose long life permitted the most offspring. This evolution had really been finished before high civilization began, because our earliest records show that three score and ten was the maximum. There has been no change in age of senility since. As procreation usually goes on until old age, forty-five must have been old age once, and the other twenty-five years have been added by civilization. Primitive man, like all other animals, never died a natural death. All present wild animals die violent deaths, at the hands of enemies or of starvation, and few, if any, ever reach the senile period, though they can live into this period if we take care of them as we care for our old people. Likewise, savage man could have lived into his senile period if cared for, but as he could not be thus looked after he had to die, and probably forty was the limit. Man's length of life, then, is a remote result of the struggle for existence due to overpopulation in his early evolution.

## MIGRATION ALTERS EVOLUTION

A corallary following from these facts is of the utmost importance. If a wave of population migrated south into a milder climate where living was easier, and the stupid man could survive and raise children as well as his brighter brothers and cousins, then there was a cessation of the natural selection of the brainiest and the further evolution of higher men. Evolution requires a ruthless slaughter of those of a certain type, and if there is no slaughter there is no evolution of the opposite type. Hence, migration south forever stopped evolution of brains, and these races are in the same mental stage as when they left the cradle of the race. The longer a race stayed in the struggle of

wits in the north the brainier it became. Hence, the further north we go from the tropics into Europe the larger are the average brains. The smaller the brain of a race or tribe, the earlier must its ancestors have left the northern brain factory. Each succeeding wave of emigration to the south was brainier than the last and overran the country, enslaving earlier arrivals or exterminating them.

The races which stayed north after the glacial period, found that they could spread further north still and they followed the retreating ice-cap, so that at the present time, the races which have been longest under this selection of the brainiest—the Baltic or Aryan—are occupying the identical ground which was covered by ice when their ancestors were first evolved into men further south. They did not arrive in Scandinavia until quite late, by which time they had created quite a degree of civilization called the neolithic. It is a curious fact, that the extent of the great Scandinavian glacier whose southern edge was in Northern France and Germany, and covered the British Isles, is the very area now holding the type of man who rules the world —the Aryan—the man longest under brain evolution and the survivor of the awful destruction of the stupid. It holds an advantage purchased by the lives of millions of blood relatives.

The severity of the environment evidently ceased in Asia a very long time before it did in Europe, so that civilization began and brain evolution stopped ages ago, and has not progressed since. Asiatics, as a rule, being of less average brain and less intelligence, are thus the jetsam of evolution. Those types which were forced into a new severe environment, began the evolution again by selection, and now furnish some of the highest minds—the Alpine type.

### MODIFICATIONS DUE TO CHANGE OF ENVIRONMENT

When a race slowly migrates south it undergoes an enormous evolution of new physical characters to fit it to the new climate, and it does this by the same law of selection. Hence, the present descendants may not resemble the original European ancestor at all, and they give us no certain knowledge of the successive

stages of our own evolution. The two African anthropoids, chimpanzee and gorilla, for instance, have long heads and are evidently descended from the earliest emigrants, but may not resemble our common ancestor at all. Likewise, the lowest race in Africa, the monkey, like pygmies described recently by *Sir Harry Johnston*, are probably descendants of the earliest human arrivals in Africa, and, as *Johnston* correctly assumes, they were forced into the most inhospitable forests by brainier later arrivals. They, too, have been so changed physically to fit them to their life that they must be much different from their European ancestor. In the same way, selection has adjusted the broad-headed Asiatic invaders of Europe so that they have become white skinned, and as they have learned Aryan languages, they have until recently been considered to be Aryan invaders, and have been incorrectly named the Celto-Slavic race.

It might be added in explanation that the head preserves its general shape through all changes of environment, and it is the best test of racial relationships anthropologists have yet discovered. It survives for untold thousands of years, and this is why we are so sure that there is a common origin of such widely departed types as African pygmies and Baltic man. Perhaps, even, there is a connection between Australians at one extreme and the ancient long heads of the British Islands at the other.

The causes of the origin of the two-head types, long and broad, are not known, but it is surmised that it was due to some very early environment making it necessary for the prehuman Eastern species to have a broad body, neck, head, face, limbs, etc., while the Western type had long slender parts, the skull in each case partaking of the general form. Probably one was a meat eater and lived on the ground and needed a heavy body, while the other was a vegetarian and a tree dweller, needing a light, slender body for climbing—but it is all speculation. Body changes can occur later while not affecting the skull, whose actual shape is immaterial as far as existence is concerned. Thus, of the two broad-headed anthropoid offshoots of the Eastern type, gibbon and orang-outang, one is very slender

and the other thick set. Likewise, we now have slender and thick-set long-headed races as well as both types of broad-headed races. Skin color is a secondary matter, as we will later explain. Recently there has been a reaction against the idea that head shape is the best test of racial affinities, *Prof. Wm. Ridgeway** going so far as to assert that the environment may change the skull. Until we find the reasons for such shapes discussion is futile. The only thing we need know here, is the fact that by heredity, the shape is retained for immense periods.

## MAN'S EVOLUTION DUE TO OVERPOPULATION

The evolution of man from a lower type of animal thus brings us back to the old question of starvation in overpopulation, and we find the early habits preserved in infancy still. For instance, monkeys carry every article to the nose to determine by smell whether it is good to eat. In their natural state they are constantly searching for food. In a later stage the stress was the same, and everything must have been instinctively carried to the nose or mouth. Habits which have been useful for hundreds of thousands of years do not disappear in a day. By the law of organic inertia, they persist long after their use has disappeared. Human infants thus retain many useless traits which were necessary in a prior stage of development. They can hang by their arms almost from birth—a perfectly useless arm power—but a vital necessity in baby monkeys and adult ones, also. The delight expressed by an infant when it grasps hair and the way it holds on, are both simian survivals. Consequently, as an infant carries everything to its mouth—a perfectly useless habit now—it merely proves that there was a time when its ancestors were always hungry and searching for food.

A condition of insufficient food was then the basis of that struggle for existence which caused man's evolution. If there had been fewer creatures or more food, men would not have been produced. We can now understand why he is adjusted to this state of affairs—his physique was evolved for this very

* *Popular Science Monthly*, December, 1908.

purpose, and he must continue the struggle or decay. There is no medical fact better known than the necessity for work, so that our very salvation is dependent upon the overpopulation which compels us to work. Instead of being a disaster—the problems of overcrowding and poverty are blessings in disguise without which man would disappear. Every organ, tissue and function we possess is thus evolved by natural selection as the best for that struggle. Use is still necessary or they decay, and idleness a fatal curse. No sensible person believes the Biblical story that God cursed man by decreeing that he should gain his living by the sweat of his brow. The word should be changed, and we should say that God *blessed* man by compelling him to work. The Biblical account of the fall of Adam was merely man's way of accounting for the struggle for life, which is sometimes more or less painful and is always arduous. But its pleasures are vastly greater than its pains, and men of sense invariably work even where there is no pecuniary necessity. If the birth rate could be so reduced that it is equal to the death rate, then the struggle for life would lessen, idleness beget degeneration, as in too many rich families, the death rate would increase, and population lessen. Fortunately for us, nature is so delicately balanced, that the appropriate number of babies will appear yearly for all time, to keep up the proper degree of overpopulation, so that working for one's living will always be man's blessed necessity. We have, then, a proof in this necessity for work, that the earth is and always has been overpopulated within the sense that there are more men than can get food even if there is food enough somewhere to feed them all.

# CHAPTER VII

## MIGRATIONS

MIGRATION OF THE LEAST EFFICIENT—EARLIEST HUMAN CURRENTS—EARLY STREAMS FROM ASIA—ARYAN STREAMS FROM EUROPE TO ASIA—LATER ARYAN STREAMS—MIGRATION OF LANGUAGES—LATER BALTIC STREAMS—TARTAR STREAMS—SOUTHERN AND WESTERN STREAMS—ORGANIZATION OF MIGRANTS—MIGRANTS ARE ALWAYS YOUNG—PEOPLING OF AMERICA—SLOWNESS OF EARLY MIGRATIONS.

### MIGRATION OF THE LEAST EFFICIENT

All animals tend to stay where they were born, and when they change residence it is in search of food. Those which migrate with the seasons merely have two homes. The same conditions govern man. If he is comfortable and possesses the necessaries of life, he is content to stay where he was born. He is normally a stay-at-home, and will not move unless under pressure of some sort. Even in America, where there is supposed to be the greatest restlessness, he is found anchored to the soil.* It has been "demonstrated by actual statistics that only three per cent. of our people travel more than fifty miles from their homes in the course of the year."

Migrations, then, are evidence of an internal pressure, forcing out the least efficient. It is not true, as stated by *Ross*,† that only the restless energetic men have migrated to this country, constituting a special breed of energetic Americans. Such men are the successful stay-at-homes and remain in Europe with their accumulated property. The failures come here in search of food, actually driven from home by their more successful relatives or by stronger invaders. *John Fiske* long ago pointed out the fact that even the *Mayflower* brought over men who were driven from England by poverty, debt and also miscon-

* George Allen England, *New York Medical Journal*, June 17, 1905.
† "The Foundations of Sociology."

duct. They and the Puritans were inefficients, lacking in intelligence, as shown by their bigoted religious beliefs, and like all narrow people were as intolerant as their persecutors. They were undesirable citizens, and so were many members "of *John Rolfe's* colony in Virginia; of the French Huguenot settlement in the Carolinas; of the Dutch in New York, and of the Maryland and Pennsylvania plantations."

In the work on "The Origins of the British Colonies," by *George Louis Beer*, the basic idea is the necessity for close commercial relations between the home country and the colonists forced out by overpopulation, and the conditions were recognized by contemporary writers. "There were neuer more people, neuer lesse employment, neuer more Idlenes, neuer so much Excesse." "Also we might inhabite some part of those countryes, and settle there such needy people of our countrye, which now trouble the Commonwealth, and through want here at home are inforced to commit outragious offenses, whereby they are dayly consumed with the gallowes." The colonies received the dregs of Europe, and as these men were freed from the restraints of the better types, who made the laws, the seventeenth century witnessed a carnival of piracy and crime. The foulest reprobates from the city slums were the only men Columbus could get to man his ships, and thereafter every expedition carried out a hard set of men, adventurers, criminals, tramps and beggars, who were to find gold and get rich, and for over four hundred years, degenerates have been flocking to unhappy Cuba from Latin Europe.

The Irish immigrant of 1840 and later, and the Italian of 1880, both gave us very false ideas of the Irish and Italian people, and so do the Chinese coolies who come here, for they are all different from the mass of their people and of course vastly different from the intelligent, cultured ruling types. The same conditions exist to-day, for the Immigration Commission which recently investigated the matter, stated that the best people in Europe were prosperous, and too well satisfied to migrate.

It has been proved that European governments have repeatedly paid the transportation charges of paupers to get rid of them, and our greatest task is to keep out those who will become

public charges. The law against the importation of laborers under contract was passed to prevent the wholesale immigration of the unemployed inefficients of Europe. Nevertheless they come individually if not in groups under contract, and *Dr. René Gonnard*, Professor of Political Economy in the University of Lyons, shows that this great emigration consists "of those who are in distress," and it is, of course, mostly from rural districts, because there is no room on the farms for the babies.*

To be sure, *Dr. Maurice Fishberg*† believes that his statistics prove that emigrants, as a rule, are taller than those who stay at home; but stature does not constitute success in the struggle for existence.

It is necessary to study these past and present migrations, not only for the light they show upon the question of overcrowding, but because they are at the basis of the relationship of races now brought into close contact for the first time by reason of the increased facilities of travel. The stream to America apparently culminated in 1907 with a total of not far from 1,500,000 souls—the most stupendous migration in the history of the world.

## EARLIEST HUMAN CURRENTS

A general survey of ancient human currents shows that they must have flowed from the two centers of origin, in Central Asia and Central Europe respectively. The Western stock began to spread as soon as the ice melted sufficiently to allow escape over the Alps and other mountains to the south—the ice which had imprisoned it and compelled its evolution. Prior to this ice age, some of the apes could migrate and their modified descendants—the chimpanzee and gorilla—exist in Africa still, having undergone but little, if any, evolution in intelligence, though undoubtedly vastly modified in physique to suit new conditions. The next higher type which arose during the

* The latest governmental statistics available are for the year 1905, and show the following outflowing stream of humanity: Italy, 459,000; Russia, 197,000; the United Kingdom, 262,000; Austria-Hungary, 187,000 (of whom 63,000 were Hungarians); Spain, 147,000; Sweden, 36,000; Portugal, 33,000; Germany, 27,000; Norway, 25,000; France, 15,000; Denmark, 8,000; Belgium, 5,000; Holland, 5,000; Switzerland, 4,000.

† *Science*, April 26, 1907.

imprisonment of the anthropoids in the ice age, was the connecting link, or ape-man (pithecanthropus). It has left no descendants in Africa for none could get there. Perhaps some fossils of this type might be found in Europe eventually, but none have thus far turned up. The Eastern race has left one fossil, found in Java.*

The first European emigrants were probably the ancestors of the pygmies of Africa.† A later type may have gone as far as Australia and New Guinea. Successive later and higher waves entered Africa, forcing earlier arrivals from the best hunting lands, so that at one time Egypt and all Northern Africa were in the paleolithic stage, precisely the same as that stage of the home country.

*Dr. Flinders Petrie*‡ states of the Egyptians of the earliest civilization, prior to 4,700 B.C., "They appear to have been mainly North African tribes of European type." Their pottery was like that of the present Kabyles of the Algerian Mountains. *King Marenptah* (son of *Rameses*) tells of Libyans of Northern Africa invading Egypt.

* Since the above paragraph was written an alleged prehuman specimen, found in glacial gravels at Chapelle aux Saints, France, was described December 14, 1908, to the Paris Academy of Sciences, by Professor Edmond Perrier. The physical type is decided simian, but the brain is large enough to be called human, the combination we would expect. If this find proves to be really prehuman it confirms the growing impression that Europe was the cradle of the Eurafrican race.—*Science*, January 1, 1909.

† Sir Harry H. Johnston, describing the ape-like dwarfs of the Congo, the northern origin of anthropoids and man, and their migration into the protecting tropical jungle, says: "The anthropoid apes had, no doubt, been driven away from western Asia and southern Europe, by their successful compeer and offshoot-man, who can have been the only serious enemies of these ancestors of the gorilla, chimpanzee and orang-outang. Some long time after the scared chimpanzees and gorillas had found a secure refuge in the dense woods of west central Africa, the earliest types of humanity who had entered the dark continent were also pushed toward this gloomy forest by the inroads of superior tribes, and some of their descendants exist there at the present day." He assumes that they originated in southern Asia after the pithecanthropus, and wandered to the Pacific Islands where specimens still remain, some going west to Africa. But there is evidence that the Asiatic negrittoes are different from the African and had an eastern origin. "It is just possible that this (African) type of pygmy negro which survives to-day in the recesses of inner Africa, may even have overspread Europe in remote times." "Fossil remains in Sicily, Sardinia, and the Pyrenees would seem to indicate the existence in Mediterranean Europe at one time of a negritto type, and a rude statuette found in the Pyrenees and attributed to the stone age, would seem to show that these pygmies lingered on long after the invasion of the country by superior races," that is, lingered in the south until exterminated by later brainier arrivals from the north.

‡ Smithsonian Report, 1897.

By such migrations, the Western type of primitive man slowly spread over the whole of Europe and Africa, and its descendants are now called the Eurafrican race. From fossil remains and from a study of the lowest forms which are now found in Africa, there is no doubt that this primitive man of Europe was a rather short, frail brunet, with a long face and head quite similar indeed to the types now clustered around the Mediterranean basin and grouped together as the Mediterranean race. His remains are found in every part of Europe from Russia to England, and constitute the oldest evidence of humanity in this part of the world.

As the ice cap, which covered Northwestern Europe, retreated, man followed, from the constant internal pressure which forced him to spread, but wherever he migrated he changed his physical characteristics to fit him for survival—for instance, becoming black in the tropics to protect him from light, but assuming lighter complexions in darker countries. Consequently there is a perfect gradation of forms from the blackest negro to the whitest Scandinavian. By the ordinary law of the survival of the fittest he became tall in some places and short in others, and gradually assumed the other characters such as we find them to-day. Yet the one character of greater intelligence in the north, due to increasing size of the brain in the severe struggle for existence, must be constantly kept in mind, for it is the key to the explanation of those wonderful later migrations from the north which have so profoundly influenced the history of the world.

## EARLY STREAMS FROM ASIA

About the time that man found his way into Scandinavia, there occurred a remarkable invasion from Asia, where evolution of brain had apparently progressed at a more rapid rate. Consequently the early Asiatics or Turanians were far in advance of Europeans, building up high civilizations long prior to any in the West—indeed, it is not at all unlikely that they are responsible for the first civilization in Egypt—being the first conquerors of the men who had migrated to the Nile Valley from Europe. Consequently the density of population was much higher in Asia than in Europe, and when the barrier be-

tween the two types disappeared, the Asiatics at once flooded Europe. This movement began at the end of the neolithic period, and as their remains appear about the time that bronze was introduced into Northern Europe, they are often credited with having brought it with them. These broad-headed Asiatics were heavier men than the Europeans, and were able to conquer their way into almost every nook and corner of Europe. They did not reach further south than the middle of Italy, and the middle of Spain also, perhaps, though they did enter Greece. They even overran Denmark and must have percolated into Scandinavia. The density of population was very low throughout Northern Europe, and the invaders found immense areas unoccupied. They no doubt slaughtered the natives wherever met. They introduced the custom of burning their dead, but as they often lived with natives who buried their dead, they may have existed as an aristocracy. In England, the new race introduced the curious custom of burial in round sepulchres, so that they have been called the "round barrow" race in contrast to the earlier or "long barrow" race. Both types still exist in all the British Islands and Ireland.

This early migration from overpopulated Asia was the first "yellow peril"—and a very real one, too. The last waves were the historic incursions under *Attila*, the great Khans, *Tamerlane*, *Mahomet II* and the Turks. Some types of these later invaders have completely disappeared from Europe, but the earlier types have persisted and now constitute the great Alpine race—so called because it has been in great part forced into the mountains and inhospitable places by more intelligent later immigrants from the north. Like the Eurafrican race, it has changed here and there to accommodate itself to special environments, but there is a complete gradation of forms from the refined types found in France and England to the Mongolian forms in European Russia. They all tend to be of medium height, with thick set bodies, broad heads and faces, and a complexion more or less brunet, according to locality.

Probably this yellow invasion may have been one of the reasons why some of the primitive Eurafrican race were forced into Scandinavia and kept there undergoing that tremendous brain

evolution which has made them the most intelligent race on earth—evolving the highest language in existence, and at the present time controlling the world. The "yellow terror" of prehistory may have thus been one of the causes of Aryan evolution—a blessing in disguise, for there is no doubt that every fact connected with the Aryans shows their origin to have been in a cold climate in Northern Europe, and that the word Aryan is really a synonym for the blond race.

### ARYAN STREAMS FROM EUROPE TO ASIA

*Dr. Leonhard Stejneger*, of the National Museum, has brought together an immense number of facts showing a former land connection between Scandinavia and Scotland which possibly lasted long after man was evolved, yet it disappeared long before the origin of the Aryans, who were evidently cooped up and unable to migrate. As soon as they gained strength enough to burst through or over the barrier of Asiatic broad heads, they began a southern drift—now and then in floods or waves—a drift which exists at the present time and which has caused nearly all the events commonly spoken of as history. It overflowed through Asia Minor throughout Southern Asia to India, carrying the Sanskrit language to all those peoples. *Doctor Brinton* approved the idea of *Doctor Maurel*, that the easternmost wave of Aryans in India are the Khiners of Cambodia, who are supposed to have arrived not earlier than the third or fourth century, A.D., but it is extremely unlikely that they survived many generations in India.

The Aryan race overflowed into Ceylon where it built up a tremendous civilization and then perished. It flowed on into Java and Sumatra, where it has left monuments almost identical with those of Ceylon. Its culture may have flowed on and on throughout all the Pacific Islands before it finally died out, for this is the only reasonable explanation for those peculiar and immense statues, works of masonry, etc., not vastly different from the Javanese, although found as far away as Easter Island, and whose origin is wrapped in impenetrable mystery. The Polynesian knows nothing of them and could not have made them.

The Ceylonese sacred literature is in a Sanskrit dialect called Pali—and is one of the sources of our present knowledge of the Aryans of India. The Sanskrit literature is mostly from the Himalayan valleys of Nepal, where white men can live some generations, yet neither dialect proves that the men who introduced it have left any survivors. The primitive character of these languages merely proves that the Aryans who used them must have been among the first to leave the home where the language was evolved.

In Java the classic language of the old traditions, folklore and history, is *Kawi,* and we can see in that probably a relation to Pali. It is supposed to be the most ancient and the means of introducing Sanskrit words. It seems to be also related to the word Bali, the name of the next island to the east. As the ancient Javanese history, written in Kawi, contains much Hindu mythology, we see here another evidence of an Aryan overflow from India, and the possibility that these people were the ones who built up that wonderful civilization in Java. The ruins of temples, cities, works of art and engineering are wonderful in extent and beauty, are of Hindu affinity and indicate a dense population in a high state of civilization, with an upper ruling class forcing their language on prior arrivals. The Aryan rulers died and therefore their civilization died. The Dutch are merely reintroducing an Aryan civilization higher than any former one.

The Javanese separated into tribes after the death of the first Aryan civilization, and dialects arose. Malay crept in along the coast long afterward, and is spoken there in some purity. Arabic was brought rather recently by Mohammedan missionaries, probably in the fourteenth century, so the present dialects are mixtures. Sudanese is spoken in the west, though Javanese is the main language, and there is a Court language also, but all have a basis or mixture of Sanskrit left by the original Aryan conquerors.

*John Foreman* says of the Moros of Mindanao, that the root of their language is Sanskrit mixed with Arabic. This might indicate that the Aryans who built up Indian civilizations had subjugated this island also before they died out. Nevertheless, it is equally possible that both Arabic and Sanskrit were brought in

by the Moros themselves, for their traditions indicate a recent arrival not many centuries ago. The words are too numerous to be accounted for by trade. The small number of Sanskrit words in Luzon can be thus explained. *Dr. Pardo de Tavera* in his work, "El Sanskrito in la Lengua Tagalog," thinks that the Hindu actually reached Luzon as a colonizer and conqueror. These facts are mentioned merely to show the far-reaching effect of the first Aryan migration from Northern Europe of people who were superior to all the races of Asia or Europe even at that early period.

### LATER ARYAN STREAMS

This Aryan movement must have begun about 2000 B.C., though it was not until some centuries later that it reached India—possibly not until 1000 B.C. The decay of the migrants was very rapid, probably the last of them died out about the time of Buddha in the sixth or seventh century. The Ceylonese civilization is known to have died prior to 500 B.C. This first drift to the east, then, must have happened about the same time as the first drift to the south, for Egyptian monuments picture blond northern types long before the Dorians entered Greece, and that time is known to be about 1200 B.C. The men who had reached Egypt were possibly forerunners of the main army. This Northern type of man did not find Italy until some centuries after it found Greece, probably not until the seventh century B.C., and this would fully account for the later appearance of Roman civilization and its longer survival. Its culture was growing while that of Greece was dying. There is plenty of evidence that the Greek Aryans, whose statues are typically German in type, were practically all dead in the fifth or fourth century B.C., and that the Aryan Roman disappeared before the Christian era. Anthropologists incline to the view that there is little Aryan blood in either peninsula now. It died out because they had migrated too rapidly to become adjusted to the new environment by nature's slow method of the survival of the fittest variations—the method whereby the earlier invaders in the paleolithic ages had become adjusted. The present Greeks and Italians are non-Aryan descendants of the Mediterranean races

whom the Aryans had conquered (Pelasgians and Ligurians). The historian, *Freeman,* beautifully states the relationship to the Romans, of belated Northern Europeans traveling southward into the Roman Empire. The Romans were "elder brethren—men whose institutions and whose speech were simply other forms of their own."*

Later Aryan migrations have been greatly misunderstood until recently. It is becoming recognized as a fact that the Slavs were a tall, blond, long-headed Northern race which overran the eastern half of Europe, forcing its language on the conquered races. Yet they, too, have disappeared in most part, leaving their language as an evidence of conquest. Because these alleged Slavs of the steppes are talking Slav does not mean they are Aryans—if so, then our negroes are Anglo-Saxon Aryans.

Similarly, the Celts, Gaels or Gauls, were a tall, blond, long-headed Northern race, which spread over the entire Western half of Europe as an aristocracy, forcing its language upon every body—primitive Eurafricans and Turanians alike. The language was spoken from Spain to Scotland, and the native tongues more or less forgotten. Yet these Celts have perhaps completely disappeared from Spain and Southern France, and possibly also from Northern France and Southern England. They have survived in the north of the British Islands. In the time of the Roman occupation of England the Northern Gaels or Caledonians, were described as big blonds.

## MIGRATION OF LANGUAGES

On account of the ease with which people change languages, speech has long been given up as a criterion of race affinities, yet there is a reaction from this extreme view because it is at last realized that language does give very valuable information. That which a race evolves is strictly in accord with its brain development, the lowest races having the simplest, and moreover, they modify and simplify a high language thrust on them as we see in "pigeon English." Low races cannot carry the qualifications, and the noun must be spoken first and its quali-

* "Chief Periods of European History."

ties later, and there are hundreds of similar illustrations. Now a language migrates with a people, but survives after the people die, the lower conquered type modifying it. Indeed, languages have a migration of their own. Modern philologists are thus finding facts of enormous ethnic value, *Prof. Wm. Ridgeway** even going to the extreme of asserting that the basic European language was always Aryan. Nevertheless, until the time of the Aryan migrations, the state of affairs in Europe as to languages seems to be as follows: 1. There were evidently some poorly developed tongues spoken by all the primitive Eurafrican people, and remnants of these are said to have been detected in Gaelic, and have been named Iberian. *John Rhys* and *David Jones*† state that the Welsh pre-Aryan syntax agrees with Hamitic in almost every point where it differs from Aryan. This would show that the prehistoric Europeans had a widely extended language from the British Isles to Africa, while the Aryans were still cooped up in their Northern home. 2. The great Asiatic migration brought in Turanian languages, some of them being still spoken by the Basques, Huns, Finns, Permians, Samoyoids and others. 3. The Aryan migration from the north forced various Aryan dialects upon all. The latest and highest of these—English—seems destined to replace all others.

The Finns, to a large extent, are racially Aryans—blond, tall, long-headed people—who have undoubtedly migrated from Scandinavia. "Their entire economical, political, and social development is Scandinavian; as much so, indeed, as if they had always been an integral part of the Scandinavian race." Nevertheless, the language is Asiatic in great part—the westernmost of the Ural-Altaic family. *Isaac Taylor* states‡ that the relations between Finnish and Aryan speech are intimate and fundamental. The similarities are in the pronouns, numerals, the pronominal suffixes of the verb and the inner morphological structure of the language—but not so much in the vocabulary. Surely this can be best explained by the introduction of an Aryan language into the Finnish, and it could have been accom-

* *Popular Science Monthly*, December, 1908.
† "The Welsh People," 1900.
‡ "Origin of the Aryans."

plished by the blond Aryan conquerors who migrated among the true Asiatic Finns and became ruling types. They took up Finnish nouns just as we are taking up Malay nouns in the Philippines. This migration of blonds into Russia has been going on since prehistory. Indeed, much of the land east of the Baltic was Swedish territory until the eighteenth century. In 1703, *Peter I* won from Sweden the land on which St. Petersburg is built. It is said that there are 150,000 Germans in the Baltic provinces of Russia now, and as they are mostly landowners, they constitute one of the grievances of the Letts—another Aryan race which claims better rights to the land by prior arrival.

Some philologists believe that Turanian tongues entered Ireland before the Aryan reached it. *Charles de Kay** says that there are thousands of instances of Turanian words which have been adopted, and have become excellent Gaelic, both in Ireland and Scotland. Many of these are still closely allied to Finnic—Ugrian words. Since England had more of these lower Asiatic types than Scotland had, it was more easily conquered by the Romans, but the northern lands, peopled mostly by more recent Gaelic arrivals from Norway, were unconquerable.

What a curious analogy between England and the Philippines. Both were conquered by a Mediterranean race, for both the modern Spanish and ancient Roman armies were mostly of the Mediterranean type of man. The Mediterranean language (Latin or Spanish) was forced upon the native, though some refused to learn it, and continued their Malay or Gaelic. The Anglo-Saxon entered each island as soon as the Mediterranean type withdrew, and he is forcing English upon the Filipinos just as he forced it upon every race in Great Britain.

### LATER BALTIC STREAMS

The flooding from Scandinavia into England was checked by the Roman conquest, but when that control ceased wave after wave of high Aryan types flowed over—Jutes, Angles, Saxons, Danes and Scandinavians. The latter, who have peopled so

* *Century*, July, 1889.

much of Scotland and North Ireland are actually flowing into England from these two places at present.

Aryan Scandinavians who migrated south became the ruling type far back in prehistory. They formed numerous petty kingdoms with Asiatic peasantry and Aryan aristocrats. In Poland, for instance, the heroes, such as *Koskiosko*, were blond-German types, but the mass of the people were Turanians and intruded Jews. Finally the pressure from Siberia became too great for these petty kingdoms in Western Russia to withstand, so they were compelled to call in the Scandinavian, Rurik, to form a confederacy, but he went further and organized the Russian Government which still exists. The nation now consists of innumerable Asiatic races consolidated and ruled by blond Aryans who required only a few centuries to extend their sway to the Pacific. The "black earth" region of Russia was under that great inland sea which so recently dried up. Probably early long heads existed on its western shores, for the remains of stone implements of the early stone ages are found at great depths in the soil laid down by this water. The earliest known skulls in this region are long, but these primitive men were finally completely routed out, and the present occupants are Asiatics.

The photographs of Russian troops show typical Asiatics carrying the guns, but the typical Aryans are nearly all carrying swords. There is a closer blood relationship between the Japanese and the Russian soldier than there is between the Russian Aryan officers and their soldiers. The Aryan was using one of the westernmost branches of the Turanians as tools to fight one of the easternmost branches—the Japanese. There are variations in every race—some men being abler than others, both intellectually and physically. Hence, we find numerous blond types among the Russian soldiery and numerous Asiatic broad-headed men in higher positions. It is noteworthy that many of the generals and officials notorious for their cruelty belong to the Asiatic race—indeed, some of them, notably *Generals Saharoff* and *Dragomiroff*, who were assassinated, were almost Mongolian.

### TARTAR STREAMS

The yellow invasion of Europe was finally stopped by the organization of the medieval governments for defense. This barrier dammed back a stream which had been flowing west for 12,000 years. No wonder it sought new outlets to the south, and that the Turks and other Turanians overran the Mohammedan Empire, accepting the religion of the Mediterranean types. Centuries earlier than this, hordes of them entered China from the west and originated the Chinese Empire. The movement is going on yet, and the Southern drift of Tartars into China has been perpetual. The great wall was a stupendous effort to exclude vigorous Northern invaders. It was preceded by an earlier wall and that by a stockade showing that the Southern drift is many thousands of years old. The Chinese after overcoming earlier arrivals have themselves been repeatedly conquered by Tartars, Mongols, Mings, Manchus, and the same type managed by Russian Aryans is swarming south for the same purpose, and would have repeated history were it not for the organization of the Japanese, who decline to be submerged. The Chinese themselves are constantly spreading in all directions in obedience to the same internal pressure of overpopulation. They move mostly to the south. They have percolated all through Malasia, where they practically control the retail trade and much of the wholesale. If we would permit, they would percolate through America and control many small trades and perhaps some of the large affairs.

### SOUTHERN AND WESTERN STREAMS

Although believing in an African origin of man, *Ripley* shows* that in Europe there probably always was a swarming to the south—a constant drifting which only occasionally took the form of military masses, and that it still goes on—"Germans are pressing into Northern France, as they have always done. Swiss and Austrians are colonizing Northern Italy; Danish immigration into Germany is common enough. Wherever we turn

* *Popular Science Monthly*, January, 1898.

we discover a constantly increasing population seeking an outlet southward." We are beginning the same Southern drift in America to replace the Southern families who are dying out. Canadians drift into the United States, and Northerners are rejuvenating the South.

We have already given in the chapter on Saturation enough to show the Western drift of population in the United States, and it need only be remarked here that it is merely a variation of the currents which have flowed out of Europe for so many thousands of years. The expansions of Americans into Northwest Canada is now a veritable flood, but it is not a reversal of current from north to south, but a mere eddy of that immense stream flowing into our West. British Columbia is very much undersaturated with an inferior type, but until recently it was not practical to fill it; the human stream is just reaching it, via the United States, and submerging the less intelligent earlier arrivals, who in this case are from France.*

During the eighties, Germans came here at the rate of 200,000 a year in search of food, but as soon as the stay-at-homes learned how to make goods with which to buy foods the outward flow lessened and the foods flowed toward them. From Italy, in 1905, about 750,000 flowed out—but mostly to South America, though the United States and Canada received a big share. In some districts of Brazil, the Italian language is crowding out the Portuguese. The present tremendous flow of Slavs to America is governed by the same laws.

* Mr. Wm. E. Stewart has a readable article in *Cosmopolitan*, April, 1903, on this migration. He says: "When the Hon. Clifford Sifton, Canadian Minister of the Interior, told a number of delegates from the London Chamber of Commerce, at a banquet given to them recently in Montreal, that 'Americans now own the Canadian Northwest,' he made a statement which was a recognition of one of the most remarkable movements of population which this continent has seen since its settlement. The significance of the Americanization of the northwestern provinces of Canada is emphasized by a consideration of the natural resources of the country and its capabilities for enormous development. It is estimated that there are 75,000,000 acres of arable land in Manitoba, Alberta, Assiniboia and Saskatchewan. Allowing one-eighth of this area for pasturage and other purposes, and, taking the average yield per acre for all grains of last season as a basis—about twenty-nine bushels—it becomes apparent that the district may grow, when all is under cultivation, 2,000,000,000 bushels of grain of all sorts yearly, to say nothing of various other products." Since the above was written, the flow continued, and it is said that by 1906 there were 150,000 American farmers in the new Canadian wheat fields, and in 1908 the land was "booming" with prosperity.

The migration from Spain still keeps up, for that country is as dreadfully overpopulated as ever. They are having bread riots every now and then, just as in England. Several times in recent years we have been given details of the stricken arid districts, including Seville, Jeres, Cadiz, Malaga and Cordova, whose inhabitants are mostly of the laboring class, dependent upon agriculture. A dry year means starvation. It is known that in the last few years one third of this population has emigrated mostly to South America, yet it is confessed that all this migration has not ameliorated conditions materially, an instance of constant overpopulation in spite of emigration.

*Jhering*, in his great work on "The Evolution of the Aryan," is about the only one who strikes the nail directly on the head. The foundation of all his accounts of their migrations is the fact that there is overcrowding and a search for food. He calls them indispensable periodical "blood lettings," some waves perishing while others succeeded. "Stern necessity drives them forth." He rightly says, "Everywhere throughout history, the cry has been Land! Land! not only with the Teutons, but also with the Celts in upper Italy, when under *Brennus*, they set out for Central Italy. For a grant of land they, too, were willing to lay down their arms.* This same motive underlies the establishment of colonies by the Greeks and Romans—lack of food for the increased population." It is not at all strange that the latest book by *Rohrbach*, the German writer on politics, should be based on this old, old cry for more room for the overpopulation, now so well recognized in Germany.

### ORGANIZATION OF MIGRANTS

It is evident that when races migrated, their organization corresponded to that of the period. The earliest emigrants were the men who escaped when the confining barrier first broke down, for we have seen that the prehuman ancestor was imprisoned in the north in some way and forced to the evolution of brain. These first migrations were so early that there could not have been any greater organization than a loose kind of family group. Hence the process was a slow one, a mere oozing

* Livy, Vol. 36.

along the soil, a spreading of a homogeneous fluid. The negrittos and allied lowest types of men are the descendants of a migration which probably lasted through the paleolithic times and well into the mesolithic. As the brain enlarged, civilization grew, societies became organized into families, clans and tribes and the migrating masses were similarly organized. The Aryans being cooped up in the North undergoing a long brain evolution, it necessarily happened that when they did start to spread, they possessed a high civilization, though to be sure, it was a rude, unlettered one, as they were so far away from the literary centers of the earth. But they had brains. *Jhering* mentions the high military organization of the branches which migrated to Asia, as found in Vedic literature.

The interesting point is this, that migrations evidently became so necessary to thin out the home country, that the matter was placed on a regular, legal, organized basis. Certain young people either volunteered or were detailed to migrate at stated or irregular periods. Among the Scandinavians, in time of famine, it is said that a third or even a half of the population would be chosen by lot to migrate. This custom was even kept up after the Roman stream reached Italy and built up the Roman Commonwealth, and is shown in the institution called the *ver sacrum*. The description by *Festus* is generally accepted by scholars. "In times of severe distress the Government dedicated to the gods, for the purpose of moving them to compassion for the people, the entire offspring of both man and beast during the forthcoming spring. The children were allowed to live until they had grown up (twenty or twenty-one years); then the marriageable youth of both sexes had to leave the town and seek their fortunes abroad, and make a new home for themselves elsewhere. The nation severed all further connection with them, wherein lay the difference between the *ver sacrum* and colonization. The people did not concern themselves as to the fate of the wanderers, who were given over absolutely into the hands of the deity, who might do with them what he would. Hence, the name of *ver sacrum*, and of those who took part in it of *sacrani*."* *Festus* supposed this thrusting out took the place of

* Jhering.

the infanticide of primitive times, and many scholars agree with him, but infanticide by exposure was common in all ancient nations—even the sacrifice of older children. *Jhering* believes the institution is merely a religious custom or survival of the old custom of migration in memory of their own separation from the parent stem. This is quite likely because the saving of the children for twenty years could not relieve a pestilence, calamity or famine, nor take the place of infanticide. Ethnic customs, once necessary, often survive as religious ceremonies for ages after their use has disappeared. All works on anthropology are full of illustrations of these survivals in meaningless customs and ceremonies of all peoples. The matter is brought in here to illustrate the extreme necessity there was for migration, for, as *Jhering* repeatedly states, there was constant pressure from over-population among these pastoral earliest Aryans, and a migration in search of food. They needed 100 times as much land than they would if they had even rude and imperfect agriculture. It is curious that *Jhering* did not note that if they were in search of food they would not travel to colder climates, as he claims, but to warmer. It was a Southern drift. He was still under the old philologic influence which ascribed a Southern origin to the Aryans.

### MIGRANTS ARE ALWAYS YOUNG

In these Aryan migrations, only men able to fight were chosen, and the old, sick, feeble or cowardly were left at home; also the rich and successful men or their immediate heirs, for these had no need to go. Even on the march the sick and old had to be sacrificed for the common good. It was a young people's affair entirely. *Jhering* even mentions a species of property tax, laid upon the wealthy stay-at-homes, who had to contribute largely of their cattle and goods to provision this poorer element thrust out for the common good. Assisted emigration is still with us. Even as late as 1906 the town of Leith, Scotland, dumped several hundred of its unemployed on the Province of Ontario, and, strangely enough, the taxpayers were alarmed at the possibility of such expenses becoming a serious drain on their resources.

Yet it is a natural phenomenon, seen even in the swarming of bees, for which the greatest preparations are made, though curiously enough the old ones desert the hive to the young, perhaps driven out by those best fitted to carry on the species.

How like to all this was our own Aryan exodus from New England and the Atlantic seaboard toward the West during the eighteenth and nineteenth centuries. Certain young married people "trekked" west, helped by the contributions of the old folks. It was Aryan to the core. *Jhering*, by the way, believes that the Roman processes of divination by observing the passage of birds was a remnant of a custom of migratory Aryans looking for the proper way to travel, and that divination by examining the intestines and other organs of animals is a remnant of the habit of looking for diseases among the domestic animals the emigrants slaughtered en route to see if the region was a healthy one.

The pitiful overcrowding of Switzerland is mentioned by a writer in the London *Lancet* of October 28, 1905, in an article on the feeding of school children and on other socialistic schemes. It is said that the children are taught that they cannot stay at home, but must go out into other countries to make their living as soon as they are able. We can almost imagine this to have been the normal condition among Aryans. The cruises of the Vikings and swarming of all the Teutonic tribes were but instances of the same necessity. Every farmer's boy in America grows up with the idea that he must move off when his time comes; only the lower races allow the surplus to stay at home to starve.

## PEOPLING OF AMERICA

The interesting thing about the migrations into America is the undoubted fact that they are comparatively recent phenomena, for there is no evidence whatever of primitive man on this continent. The first arrivals were in the neolithic stage of culture, and though that period began some thousands of years ago, it was a very short stage compared with the previous paleolithic. All the alleged finds of primitive man prove, on investigation, to be recent, and *Hrdlicka* has proved that even the

skulls dug up from apparently undisturbed strata are of the same type as recent Indians. That is, this continent was unoccupied for immense periods of time after man had been existing in great numbers in the Old World. It seems as though the glacial period did not find, as in Europe and Asia, an anthropoid sufficiently intelligent to survive the severe conditions or could not coop them up. The existing monkeys were killed off or driven south. When the glacial period ended there was left a country eminently fitted for man, but it was not discovered for a very long time, and then was invaded by an Asiatic type unable to use it to its greatest capacity. Though very high Maya civilizations did grow up in Central America at least several thousand years ago, they may not have taken very long to develop from the neolithic culture introduced by the first settlers. These high cultures arose here, for certain essential things are not found which would be present if the civilization itself came from Asia.* Nor is it necessary to imagine migration across the Pacific or by a land connection between Asia and America, for the present island of the Bering Sea and even Bering Strait itself are competent to account for the movement. A very few immigrants, with a birth rate of six per family, would increase in four centuries to the maximum number the land could support. Even yet, the types on the northwest coast of America and northeast coast of Asia are so nearly alike, that common ancestry cannot be doubted. The recent flooding of the Pacific Islands by the Japanese is merely a reëstablishment of the prehistoric current.

### SLOWNESS OF EARLY MIGRATIONS

The usual movements of population are so slow that they are scarcely perceptible in one man's lifetime. History only notes the outbursts or floods where artificial barriers have dammed back the fluid and it has burst through as in the excursion of Goths and other Germanic tribes to the south, or as in the recent flood to America. The little insect born in the morning and dead at noon, may think that the sun always shines in one place, and that is the way with us in regard to movements of population,

* Prof. E. S. Morse, *Popular Science Monthly*, November, 1898.

but past records show tremendous though slow migrations. These are in their turn insignificant when compared to the prehistoric movements of dolichocephalic peoples extending through Africa, or the brachycephalic from Asia throughout the Pacific and thence throughout the whole of America. Anthropologists, like geologists, have given up all cataclysmic theories, and explain the peopling of the earth by processes now existing, just as geologists explain everything by forces still acting. The order of the universe is continuous and not cataclysmic.*

Great popular crazes or manias have periodically possessed all peoples, phenomena to which psychologists give much attention. Absurd illogical ideas are taken up and believed for centuries. Under the influence of these crazes we find that populations occasionally move in great masses, and not by the usual slow oozing movements normally followed by survival. In the Crusades, for instance, we can see such movements, and it is quite likely that they were merely the results of internal tension of overpopulation—explosions instead of overflows. Millions of Crusaders flocked south toward Asia Minor, in the identical paths chosen by currents of people for thousands of years previously. As very few returned the thinning out of the home numbers must have been very beneficial. We can, therefore, look upon the Crusaders as temporary intensifications of the usual and permanent currents.

The peopling of the earth has, then, been by means of a slow oozing along the surface, of a sluggish mass, loth to leave its native place. In no other way is it possible to people a new climate, for in this way there is time for origin of new adjusted types by the law of selection. For instance, life in the tropics is impossible without a dark skin to exclude the fatal actinic rays of light. White races die out in a few generations, and rapid migration is entirely out of the question. But if there is an exceedingly slow movement, there is a killing of only the blonds in each generation and the survival of the most brunet allows of the origin of progressively increasing blackness as the tribe reaches the lightest and hottest regions—a matter which requires many millenniums. Anthropologists once grouped men

* Professor Brabrook, *Popular Science Monthly*, January, 1899.

according to the color of their skins, but we now know that this is merely a later change and not a safe means of determining race. Yellowish Asiatics have turned white in Europe though still brunet in type. Hence, if we follow back the line of descent we find a closer blood relationship between long-headed Africans and Teutons than between white long heads and white broad heads in Europe, such as we find side by side in Switzerland. The proofs of this inability to become acclimatized except by slow movement are very numerous, and will be given later. We rarely appreciate the enormous rapidity and volume of modern migration due to the fact that means of transportation are so efficient. It would ordinarily take many generations to go from Russia to France. Even the volatile eruptions of Huns took time, yet they were as nothing when compared to the present floods of Huns and allied peoples now pouring into New York.

The following quotation from a description of the Slovak and the Pole in America* is a beautiful illustration of how a lack of transportation dams a population back and increases its density beyond the food supply, and how modern railroads are like tapping or tunneling through the dam so that the human flood pours out to a less dense area in search of food: "Thirty-five years ago the crescent-shape Carpathian mountains shut in their divers Slavic families in complete isolation from one another and from the outer world. Only the young man who had been drafted into the king's army knew of that strange world which began at the margin of the village pasture and ended in some distant province of the empire. Railroads were a far-off wonder, the telegraph a myth or a mystery, and America farther away than Heaven. About twenty-five years ago I saw the first Slavic emigrants returning to their native country from America; about a dozen stalwart men stepped from a third-class railway carriage at Oderberg. These first venturesome peasants came from the most impoverished and crowded portions of Hungary, populated by Poles and Slovaks, and the wealth they brought with them was real wealth, which incited others to leave home a while to gather the dollars on the other side of the Atlantic.

* E. A. Steiner, *Outlook*, March 7, 1903.

The wages in Hungary then were about fifteen cents a day, with long idle winters in which the 'wolf' came very near the door of every mud hut in the village, and the report of about ten times as much a day, with bread, beans, onions, and even meat for daily diet, made the timid Slovaks bold enough to climb over the mountains which shut in their native valley to seek their Eldorado, America. The coal mines of Pennsylvania, the steel mills, coke ovens, and limestone quarries of Ohio, needed their muscle, their patience, and their unvarying industry, and constant calls were made for new recruits, until the present number in this country is not far from 200,000 Slovaks and 300,000 Poles."

As before explained, the current is now westward across the Atlantic, but it is still out of Europe and not into it. *M. Bodeo*, member of the Statistical Institute, has shown* how this flood still keeps up and why it is mostly from the central and southern parts. There were checks in 1870, due to economic troubles in Argentina and Brazil, and in 1893 in the United States, and again in 1900 and 1908. He also shows why there is less need for emigration from the Aryan Northwest of Europe, whose people have learned how to buy food and import it instead of flowing out in search of it.

* *Le Monde Économique.*

# CHAPTER VIII

## EARLY SOUTHERN MIGRATIONS CAUSED THE FIRST HIGH CIVILIZATIONS

CONQUEST OF LOWER TYPES—TRIBAL EXCLUSIVENESS—ARISTOCRATIC ALOOFNESS.

### CONQUEST OF LOWER TYPES

A conquering race intruded in a warm climate much different from its native one is not able to do manual labor. The ruling types must protect themselves from the climate and leave the labor to the natives who become serfs or slaves. For instance, the Spaniards never could do manual labor in the Philippines. His half-breed descendants are equally unable to labor, and all work on the farm is done by the Malay. Indeed, the races longest in any country are invariably found on the soil—the farmers. Trade is generally in the hands of later intruders.

Now, when a conquering race holds in subjection a lower one, which it can use as a species of high domestic animal, we have the conditions of intelligence and leisure which build up civilizations. The brain can now be used for other purposes than a mere struggle for existence in a severe environment—there is time to think of other things and compel others to carry out our plans. It is no wonder, then, that in these early conditions, civilizations flared up like mushrooms so many centuries sooner than it could in the Northern homes of these immigrants, but unfortunately only to die out as soon as the invader died.

*J. S. Stuart-Glennie* (Haslemere, England), in his lecture on "The Law of Historical Intellectual Development" at the Petit Palais under auspices of the École Internationale de l'Exposition, September 21, 1900,* states the law as follows: "Intellectual development, independent of further increased size of

* See summary in the *International Monthly*, April, 1901.

the cerebrum, originated as a result of, and has proceeded under conditions derived from, those conflicts of higher and lower races in which likewise originated (about, perhaps, 8,000 B.C.) progressive civilization." He distinctly states that higher Northern races, through overpopulation, migrated to the south and found lower races in possession. In valleys like the Nile and Euphrates, where the lower races could not "trek-off," they were subjugated and made to labor for the emigrants, who, having now more brain than necessary for preservation of existence, thus had leisure to devote to civilization, which did not arise in the homogenous nations to the north, because they had not the leisure, being occupied in the struggle for existence and having no lower races to subjugate and use as slaves or a higher domestic animal. He also states that the Chaldean and Egyptian discoveries show that such a migration from the north was the basis of the origin of their intellectual development. The records of *Nippur* show upper types in the cities and lower on the farms at least 8,000 years ago.

The advance of civilization in India occurred while the Hindus were marching south, fiercely fighting the aborigines for a home.* Then the civilization came to a standstill as the invaders died out. Early Chinese annals show the same while the invaders were coming down from the Western highlands. Egyptian historians mentioned ten kings who ruled at Abydos in Upper Egypt during 350 years "before Mena," who founded the United Kingdom of the whole land, and is counted as the first king of the first dynasty. *Flinders Petrie* says: "The labors of these early kings were both in the subjugation of the various tribes to regular government and in the subjugation of the land to regular cultivation. Thousands of captives are recorded, side by side, with irrigation works in which the king took part. These kings were the real founders of the great state which was to head the Western world for 3,000 or 4,000 years; yet the figurehead of the history has been Mena, their successor, who founded the new capital, Memphis—practically the present Cairo—and is credited as starting the first dynasty, 4777 B.C." It seems more likely that at the

* Charles Morris, *Popular Science Monthly*, October, 1895.

site of Cairo towns had existed four millenniums before this, as it was the natural place for towns—at the apex of the Delta. Now, *Petrie* states that until the time of *Zee*, the second king of the first dynasty, Egyptian art was archaic and tentative, but during the fifty-seven years of his reign there was a rapid crystalization and by the end of his reign the forms took the shape which continued for 4,000 years. It was a rapid fixation similar to that of Greek art in the forty years after the Persian war. As the ancient Egyptian conquerors are invariably represented as higher types of men than the native workman, it seems impossible to come to any other conclusion than that they were descendants of recent immigrant brainy tribes from the north—probably European—though the earliest may have been Asiatic. They built up art with their imported brains, using the muscle of earlier acclimated arrivals to produce food, and then they died out. *Petrie* also states that there were certainly five different races contemporaneously in Egypt before 5000 B.C. (Researches in Sinai.)

The skulls found among the remains of the extinct Cretan civilizations of 4,000 to 6,000 years ago, are all of the long-headed type, and there is little evidence of Asiatic influence, so that we cannot doubt that the culture was due to a migrated Northern type. Indeed, all the Minoan Mediterranean civilizations, which preceded the Mycenaen, seem to have had similar origins and may even have antedated the Egyptian. As far as can be surmised, the earliest Chaldean civilizations were all due to the Asiatic or broad-headed types of man.

## TRIBAL EXCLUSIVENESS

Of all the dozens of forms of government which have been devised, why is it that with a few exceptions all have perished except the one called monarchy? It is surely the survival of the fittest, and there must be some reason why it is the fittest. Perhaps the solution is found in the fact that in every part of the world there have been higher and lower races in contact, and that the latter could not appreciate a government fit for the former and had to be ruled. Eventually, it was found best to

delegate the authority to one man. We adopt the same plan, even in the most democratic nations. But in all lower European and Asiatic races there is usually a representative of a higher race to rule them, and there is never a good government without the higher race in control.

Patricians were merely newcomers who were conquerors and plebians the older residents who were conquered. Aristocrats were rulers and peasants ruled. Further back the plebians were slaves or serfs. This exclusiveness of all conquerors is universal, and as *Benjamin Kidd* shows* results from the blood relationship of small early tribes and their belief in a common ancestor who becomes a hero and then a mythical god whom they eventually worship—the basis of the universal ancestor worship of all early civilizations from Chinese to Semites and Aryans. All tribes are thus religious communities of blood relatives, and they survived simply because of their closely woven structure which was solid enough to struggle for existence against the rivalry of other less organized savages. Admission to this society was impossible, indeed it would have been sacrilegious. All outsiders were "barbarians," treated with hatred, contempt, and inhuman brutality—again a result of selection, for our present ideas of humane behavior would not have permitted of survival in those primitive times. On the other hand, the duty to the tribe of an individual transcends anything known to modern civilization, even the modern man's duty to his family. In all parts of the ancient world we find a "small citizen class living amongst vast populations to which even the elementary rights of humanity were denied, and the existence of which was for the most part the direct result of war."† Slaves thus conquered by intruders may even have outnumbered the free population. Both Dorian and Æolian Greek life were based on the rule of a warlike aristocracy, and every Greek boy spent two years on the frontier fighting barbarians.

It is not true that lack of education keeps men slaves, as was believed in our South, where it was once criminal to teach them to read. Slaves may have been cultured men, but it made no difference as to their condition of servitude. It was an ethnic

* "Western Civilization," p. 171. † Kidd, p. 181. *Ibid.*

matter solely. In Greece it was common to exchange slaves with neighboring States, so that the vast majority were not of the native race. At one time in Rome nearly all the professional positions were held by slaves—they were writers, lecturers, bankers, physicians and architects whose immense profits went to the masters or owners.

The word "gentleman" was originally gens-man, and he was far from gentle in its modern meaning. Gentle meant belonging to the gens, but as these aristocrats gradually became cultured and the peasant did not, the gens-man became truly a gentle-man. In English the word is still used in its class sense, and curiously enough it is taking on the same meaning in America where every one is a gentleman no matter how ungentle.

The rule of ancient warfare was to kill all captives. Often, indeed generally, it possessed a religious significance as the captives were of alien blood and alien religion and being ascended from another god were without any rights. To save them by selling into slavery, was then a mitigation of the death penalty and the first glimmering of humanity in war—although this first glimmering was a result, no doubt, of desire for private gain to the generals.

### ARISTOCRATIC ALOOFNESS

The contempt of an intruding immigrant conquering race for the employments of the native conquered people is best shown by *Aristotle's* statement* that "none of the citizens should be permitted to exercise any mechanical employment or to follow merchandise," and "if choice could be exercised, the husbandmen should by all means be slaves," and this was believed by *Aristotle* to be necessary to prevent these people being "virtuous," that is, possessed of the virtues of the conquerors—the privileged or select ruling race of intruders who were lawmakers, judges, soldiers and priests. He even believed that a State with many "mechanics and few soldiers could not be great." All work was degrading, and even the art and architecture which are the glory of ancient Greece, must have been largely the work of slaves. Could anything more clearly prove that the Aryan

* "Politics."

conquerors of Greece were aliens to the soil—a mere ruling class. Even yet in Germany no "gentleman," or gens-man, is permitted to follow the callings condemned by *Aristotle*, unless he loses caste. Until recently the same inviolable rule existed in England. Gens-men preferred starvation to losing caste. The peasants themselves express contempt for the aristocrat who gets down to their level. His sphere is to aid them in their work, not to do part of the work. *Noblesse oblige* is a very practical matter.

We find identical conditions in the Philippines. The conquered Malay is the mechanic and farmer. He is in debt almost always, and is a slave in nearly the exact sense of the old Greek slave. The Spanish law compelled him to work for the creditor until the trivial debt is paid—and this may be a lifetime. Some of the Filipino leaders have had no hesitancy in calling their retainers "slaves"—one to my certain knowledge announced after peace conditions that he had 600 slaves for whom he had to get rice, and he would get it if he had to steal it. The Filipino slave is not averse to his lot—he is adjusted to it, and is really better off, for he is cared for in a better manner than he can care for himself. There is never abject poverty, and but little of the begging which disfigures the countries around the Mediterranean.

A Malay always has money to bet on a cock-fight. He can get food whenever he wants by going to his chief or master, or owner or boss, or whatever name we use. The advances in money or rice are carefully put on the slave's ledger account and only holds him in a voluntary slavery that much stronger. If one of these leaders wants to enlist a regiment for war—he has it already at hand—he gives the word and they all go out, and have gone out, though not one of them knows what he is fighting for and does not care. Fully ninety-five per cent. of the Filipinos have not the least idea of government, nor the difference between a republic and an absolute monarchy. It is their masters—the half-breeds and brainier Malays—who clamor for a republic, and it is an open secret that they all expected to become feudal lords with titles, lands and powers exactly similar to robber barons of medieval Europe. To use the words of the

street, it was a tremendous "graft" which the Americanos have destroyed. Can we not see, then, why there is such hatred of us by the small body of rulers? They were to be powerful feudal lords—they are offered simple citizenship of the Philippines.

Nevertheless, the Mestizos are the rulers yet and their word is law. We cannot emancipate their slaves because the improvident "*pobres*" demand slavery—otherwise they would starve to death in the lean years. This has to be considered in our plans to give a stable government, and the more we utilize the leaders and head men the better. We have utilized the head men among American Indians for a century in giving stable government to these tribes, and it is unreasonable to object to doing the same in the Philippines. But we had to use very stern measures with the American Indian head men—and we will have to do the same in the Philippines. We have never yet let the American chief make his own laws—and we cannot here. We let the American Indian govern himself by our laws, and every now and then give him a new one, even a recent one forbidding polygamy, and we will do the same duty by the Filipinos.

There is, or rather was, in the Philippines a peculiar custom amounting to a social law more rigid than the laws of mourning with us. The slave wears the *peña* or *juce* shirt hanging outside his trousers. If a man wears a coat (*chaqueta*) it is a sign he is out of debt or is a creditor owning slaves. These *gentes finos* (fine folks) or coated Filipinos, are with scarcely an exception, the ones we hear of as leaders, officers, politicians, etc. There are about 200,000 of the chaqueta class, and half are real leaders. The rank and file of the insurgent army are the coatless *pobres* or peasants. Each town and hamlet has its *principales* or head men, who seize all the business, all the offices, all the power. Indeed, many a hamlet and its surrounding country is the sole property of one man, who is always the *presidente* or mayor, no matter what the government is in Manila—the same officials have lasted through all the recent changes, just as they do in European villages, through repeated changes of government.

Consequently, in the Philippine Islands we find the identical conditions which caused high civilizations in Egypt and Mes-

opotamia—an intruding higher Mediterranean race (Spanish) ruling a conquered lower race (Malay). This caused an increased density of population because more food was produced. It is strange that overpopulation caused by the southern migration of higher races is thus at the basis of all civilizations in the tropics and subtropics.

We might emphasize the matter by saying that ever since brains have been evolved to their present high type, they have been drifting away from the northwestern corner of Europe to control other races, but as the best remain home, gradually increasing the average intelligence, the world seems destined to be controlled from that small corner of Europe.

# CHAPTER IX

## WAR, MURDER AND DISASTERS

EXTERMINATION OF COMPETITORS—RIGHT-HANDEDNESS DUE TO WAR—LOSSES DUE TO WAR—DENUNCIATION OF WAR—EVILS OF PEACE—BENEFICENCE OF WAR—MURDER FORMERLY NECESSARY—LEGAL EXECUTIONS—FATAL CUSTOMS—SUICIDE—MURDER OF THE INFIRM—INFANTICIDE—CALAMITIES.

### EXTERMINATION OF COMPETITORS

Migration to reduce overpopulation at home, of course, meant wars for extermination abroad. Migrating bands were resisted and forced to fight their way. Hence, war and the murder of competitors were the main reliance in reducing overpopulation. It was that or starvation at home. It is necessary, then, to go into considerable detail in explaining these destructive factors which were wholly misunderstood until the laws of evolution were discovered.

The cold environment of the prehuman being was no doubt quite severe and caused a great mortality. As his birth rate must have equaled the death rate, it was necessary for every female to bear many children. In her forty years of life every primitive woman must have given birth to at least twenty children. Now, what a great change there was as soon as man developed enough intelligence to overcome enemies and adverse conditions which formerly slaughtered his children. He became the dominant animal or "Lord of the universe," and he began the subjugation of the lower animals. He raised children which formerly perished, and he became overburdened with offspring —a condition lasting until the present. Whereas he was formerly confined to one country, he could now spread over the earth, which he promptly proceeded to do, killing off everything inimical to his interests. It took but a short time for prehistoric

savages to so increase as to overpopulate any country, and crowd each other for room, and the struggle of man against man now begun, and continues until the present. Our first glimpses of prehistoric men show them to be fighting each other instead of fighting wild animals. *De Quatrefages* mentions a prehistoric human tibia pierced by an arrow.

Much as we may object to the brutality and selfishness of the dreadful philosophy of *Friedrich Nietzsche*, it is undoubted that he saw the true side of the struggle for existence, though he did not understand its reason at all. He even said that war is preferable to peace, and that peace is the sign of death. Life is not possible without strife, pain and injury to others, and pity is an element of weakness to our cause; for it helps the competitors—and we can afford to help only those who coöperate with us.

*Benjamin Kidd** clearly states the conditions of awful stress and struggle in Europe in these wanderings of peoples for more room, which resulted in the killing off of all but the bravest, strongest and more daring—in other words, survival of none but warriors.

One of the reasons for believing that the old Bible narratives are based on traditions of actual occurrences, is the fact that there is a correct portrayal of the real reason for ancient wars—extermination of neighbors for their lands—and that this was the result of overpopulation. We need not be surprised, then, to learn that God's chosen people exterminated the Midianites and divided up the loot,† nor‡ that all that breathed were destroyed, nor§ of David's frightful tortures of the captives, nor|| that they considered that the Lord ordered the extermination of the Amalekites by *Saul*. These are all true pictures of the type of ancient wars, but whether of actual cases or not is not known. That the conditions extended into the Christian era is shown in the Gospel of St. Matthew, xxiv, 6–7: "And ye shall hear of wars and rumors of wars . . . 7. For nation shall rise against nation, and kingdom against kingdom; and there

* "Principles of Western Civilization," p. 161.
† Numbers: chapter xxxi.
‡ Joshua: chapters x and xi.
§ 2 Samuel: chapter xii.
|| 1 Samuel: chapter xv.

shall be famines, and pestilences, and earthquakes, in divers places."*

*Frederick Lucas*† says: "The first use man seems to have made of the horse was to aid him in killing off his fellow man, and not until comparatively modern times was the animal employed in the peaceful arts of agriculture." This refers to the domesticated horse, for its wild ancestor was first used for food solely, yet it shows how early has been the necessity to kill our neighbors who crowded in upon our food supplies. The horse is yet used for the same purpose, and a big part of armies consist of cavalry. Without horses, civilized war is impossible.

### RIGHT-HANDEDNESS DUE TO WAR

The origin of right-handedness is a most interesting result of the wars when man first began to struggle against competing man, and shows how this first overpopulation has profoundly affected our physique. There are very many explanations of the reasons for the right-handedness which is so universal among all races of man—perhaps over ninety-eight per cent. of the men now living are right-handed. None of the anthropoids, indeed, no other animal except man, shows any preference in the use of either a right or left limb. They are all ambidextrous (or ambisinistrous). So the habit arose in primitive man. Babies at birth and for eight to ten months afterward, show no preference for the use of either hand, and are as ambidextrous as anthropoids, but before the first year of life is ended they have already begun to use the right hand more than the left. This shows two things: first, that the trait is due to an actual one-sided growth of the brain, a natural phenomenon over which the child has no control; and secondly, this period of the child's development (ontogony) corresponds in its ancestry (phylogeny) to an extremely early period of human development, just after

* "War was the great occupation of their lives," says the Duke of Argyle of the Highlanders, and Southey wrote in a copy of the "Annals of Ireland": "Jugulatio, vastatio, devastatio, proedatio, depraedatio, occiseo, combustio, strages, altercatio, belliolum, praelum atros—behold in these words which everywhere occur in this book the history of the Island of Saints." (Munro, "British Races," p. 200.)

† "Animals of the Past."

man had emerged from the simian condition and was truly a man, though a very low one.

Now, the only reasonable explanation given of the origin of dextrality is as follows. As soon as man began to use weapons in fighting his human competitors, some men, say fifty per cent., used the weapon (stone or club) with the right hand and the others with the left. It was soon necessary to use a shield or guard of some kind to ward off blows. Those who guarded with the left hand were at a tremendous advantage as they protected the heart. Their chest wounds being on the right side were not nearly so often fatal as those of the left-handed men who guarded with the right. The natural place for the blows of the right-handed man would be directly over the heart of the opponent as the latter raised his arm to strike. Even a non-penetrating blow might so shock him that he would fall an easy victim to later blows on the head, while his own non-penetrating blows on the right chest of the right-handed man, would not cause shock or collapse. Primitive warfare, then, could eliminate the left-handed in a few thousand years, and right-handedness was thus established by the operation of the ordinary laws of selection. The point to be brought out here is the undoubted fact that this remarkable human trait, depending upon a greater development of one side of the brain, is due to the first wars of man, and they were the result of bringing more babies into the world than could be fed.

Natural ambidexterity, then, is an arrest of development while sinistrality is a departure from the normal and indicates some more or less profound interference with the developing child or ovum. My own observations tend to the view that there is more or less nervous instability in all such cases, not degeneration by any means, but a neurotic condition which is not incompatible with normality. In classes of men, among whom there is a large percentage of the neurotic—that is, the criminals, insane and men of genius—it is shown that there is a decidedly larger percentage of left-handedness than among the population at large. Moreover, sinistrality not being a harmful trait any more, is becoming more and more common from survival of these types.

*Dr. George M. Gould*, the famous oculist, has shown that right-sided efficiency extends to other parts of the body, even to the eyes, and that right-handed people are also right-eyed; that is, when the images of the two eyes conflict we reject that of the left and use the better vision of the right. This also was developed during the wars of primitive man, for the use of the right hand to hold a weapon compelled him to peep out from behind the shield or tree, and those with a dominant right eye were at an advantage leading to survival.

In savage life, survival was frequently impossible unless the men were constantly ready to fight. They lived in idleness, with occasional hunting trips, but free of all other burdens, and we find as an almost universal trait, that the savage woman does all the labor, and carries all the burdens, while the men walk or ride, free of every impediment except the weapons and shields. It even caused the evolution of separate physical types as among our Indian. The men are often small, active, lithe and quick, while the women are slow, big, muscular and able to stand the necessary burdens. It isn't brutality which compels a savage to leave the burdens to the wife—but the necessity of constant war.

### LOSSES DUE TO WAR

That modern wars have been successful in killing off crowded populations needs no proof, but a few words on the subject may not be out of place. *Professor Richet*, of Paris, has stated that the wars of the nineteenth century alone have caused 14,000,000 deaths. A very curious book, "The Wastes of Modern Societies,"* by *J. Novicow*, devotes one chapter to an account of the wastes of war. Among other things he says that from 1618 to 1648 Germany lost 6,000,000 inhabitants in war, and that in Europe the wars of the last three centuries caused 30,000,000 or 40,000,000 deaths, some estimating it even at 20,000,000 per century. In 1870 Germany alone lost 2,000 men a day. Far better, some think, for these men to have died fighting for their families than to have died idly starving. It is currently reported that the Czar has stated that Russia could easily have spent

* "Les Gaspillages des Sociétés Modernes."

1,000,000 men in the war with Japan, and the Japanese contend that they could have spared 500,000. Russia itself has witnessed a destruction of life by Mongol hordes, which is scarcely conceivable. The history of the Mongols in Russia, written by the late *Jeremiah Curtin*, is ghastly reading.

It has also been estimated that in the last 100 years, 3,000,000 Mussulmen have been killed by Christians, in that struggle of Europeans to exclude the Asiatic intruders. They were religious wars, but, as *Taylor* and others have shown, all such wars are really race wars, and we must now see that they are merely expansion wars, fighting for room. In spite of this appalling number of deaths the Turks are still the rulers and are periodically killing Christians in Armenia to protect themselves.

It is high time to restate the old proposition that peace restores the losses of war. It is the very opposite, for war is necessary to repair the damages due to overpopulation resulting from peace. Indeed, war has been the normal and peace the abnormal.

## DENUNCIATION OF WAR

In recent years it has become popular among certain clergymen to denounce war as incompatible with the religion of peace and good-will to all men, and yet religious ideas are generally expressed in warlike terms. *Jehovah* is the God of Battle, and indeed, the whole of the Old Testament seems to be a long account of wars due to a struggle for existence. The universal use of fighting terms makes it practically impossible to preach a sermon without them, *St. Paul* being particularly happy in such expressions. "Men may differ on the law of national expansion, but the disciples of Christ are a unit for the expansion of the kingdom of God. Any person who reads the Bible must believe that God uses armies to accomplish great reforms. Let me say that there is no greater civilizing agency on the face of the globe than old England. No other nation is doing more for humanity."* Mohammedans believe they inherit Heaven if they die fighting for the faith, so also in Christianity, the great majority will fight at any time to resist the encroachment of

* Rev. A. B. Leonard, New York City.

other religions. Not only do we love the military terms used so happily by *St. Paul*, but we prefer his religion to the submissive form subsequently built up by his followers and crystalized in the four Gospels. Our most popular hymns are the warlike ones:

> Onward Christian Soldiers, marching as to war,
> With the cross of Jesus, going on before;
> Christ the Royal Master, leads against the foe,
> Forward into battle, see His banners go.

Of course, these stir the blood—we are warriors by survival of the fittest and we glory in it, for we long ago killed off the types which would not fight. Let the clergy eliminate all the warlike hymns first and then they can denounce war consistently.

*Mr. Frederick Harrison*, the eminent English Positivist, published an article* in which he holds the Christian churches up to scorn for the eagerness they have supported the war spirit, gloated over the defeat of opponents, and justified injustice,† but this is as old as mankind. Since prehistory, all armies have been accompanied by priests, who invoke the tribal deity for help in their struggles for expanding needs and for protection against the expanding pressure of neighboring nations under other deities.

Scientists, particularly the professional scientists safely tucked away in university chairs, have also taken up the fashion of denouncing militarism and war. They know full well that man's evolution has been a constant warfare for thousands of years,

* *The Positivist Review*, London, 1905.

† "Hardly a voice was raised within the churches to stem the torrent of vainglorious passion during any of the wars, least of all during the infamies of the various South African wars, and, above all, of the Boer War. Catholics, Methodists, Anglicans, and even the Quakers or Friends, fanned the fighting temper. They behaved just as Russian priests do to-day in their war of aggression in the East, blessing the cannons, and promising heavenly rewards to the victors. As the head manager of the degraded Russian church said the other day to the Bishop: 'You are but the instrument in Christ of the all-potent will of the Little Father by divine right.' That is the tone of the bishops and archbishops of all establishments, of our establishment. They are the instrument of the government of the day, its tool, its creature. If the government go for war, the priests of Christ to-day bless war and consecrate the engines of destruction. None do it so shamelessly, with such party zeal, as the prelates and clergy of the Anglican church."

yes, hundreds of thousands, and that only those have survived who could by fighting, secure their families, homes, property and lands. The stag engages in personal combat every autumn and the best fighters survive, the worst are ruthlessly killed. This survival of the best fighters produces warriors by instinct, and the scientist who would teach that the stag could restrain his instinct to fight in the autumn to protect and secure mates, would be retired at once. He does not see the inconsistency of advocating that man should and could repress his nature inherited from untold thousands of ancestors. But then the professional scientist has always let his own nature have full play when he wanted to fight the amateur. How the professionals had fun with the amateur *Columbus;* how they abused *Darwin;* how they hated *Koch;* and how they fight everything new even now. How belligerent they are when arguing against belligerency. Like nations, they go to war to keep the peace. How fond they are of imputing every national disease to the evil effects of militarism, the decadence of military Spain and the dry rot of peaceful China, the numerical decadence of France, and the fecundity of India, the poverty of Italy and the debt of Great Britain—are all said to be due to militarism. They forget that militarism gave us our liberty in 1783, preserved it in 1815, expanded it in 1848, purified it in 1865, exalted it in 1898, and protected it in 1899–1902. They forget that war and civilization have ever traveled hand in hand, each dependent upon the other, that peace develops the advantage gained by war, and then rots it until another war oxydizes the stagnant impurities.

## EVILS OF PEACE

In the recent outcry against war, there is but one man who has appreciated the evils of peace—*Mr. Ferdinand Brunetière,* editor of the *Revue des deux Mondes* (Paris). He shows that the French advocates of peace at any price, while expressing a desirable love of peace abroad, do not seem to appreciate the awful horrors of the civil wars resulting from peace—that is, the internal strife of overpopulation and warring upon competitors. He

also shows that European nations cannot disarm at present much as they desire to do so.*

The condition of Japan is to-day an illustration of the excessive overcrowding due to peace. The nation was formerly kept in fair condition by constant civil war. Then, about two and one-half centuries ago, it was solidified into a compact nation by the military regent or shogun, and from that time until the revolution of 1868, there was profound peace. The crowded condition of the Island became dreadful. *Stephen England,* in a letter written from Tokyo to the London *Daily Mail,* said of these poorest poor of the world, that in comparison to them, the groveling Russian of *Gorky's* night refuges, and the submerged tenth of London are *bons vivants* and spoiled children of luxury. In Tokyo alone, 200,000 people seldom, if ever, know of a certainty where the next day's necessaries are to come from—crowded like sheep, without bedding even. "Think for a moment," says the Japanese sociologist, looking at one of their battleships, "what a multitude of tiny rice fields it takes to support such a monster, and then remember that our people can't afford to eat rice." If it had not been for prolonged peace there would not be such starvation, and but for the warships, there would not be any Japan at all. The peaceful conditions of China have led to the same awful conditions of overcrowding and abject poverty, where millions live on the garbage thrown out by the well-to-do. It is no new problem, for in ancient Greece, the Pelasgian peasants increased so rapidly in the peace thrust upon them that the Aryan Greek aristocrats were threatened with extermination, so that in self-preservation the young

* "If war is inevitable, it is none the less our duty to attempt to soften its horrors. But it is a serious imprudence, a dangerous undertaking, to try, as the pacifists do, to persuade the crowd that it is in their power to avert it. This is to throw discredit on the professional soldiers, the men who have accepted or received the mission of facing the shock of battle on the day when war breaks out. It is even worse than this, for it amounts perhaps to changing the names of things and cultivating cowardice, not peace, in men's hearts. I use the word cowardice deliberately, for cowardice is based on the profound conviction that death is the greatest of evils, because life is the greatest of goods. But for the honor of humanity it must be said that neither sentiment is true. No, indeed; life is not the greatest of goods, for it is the foundation principle of morality, that many things ought to be preferred to life; and death is by no means the greatest of evils, since our true manhood is undoubtedly to be measured by the height to which we rise above the fear of it."

soldiers were periodically sent out to the country for the express purpose of slaughtering the peasantry.

The only difference between ancient and modern wars is this, that in the former the death rate was enormous, even as high as seventy-five per cent. of those engaged.

*Maspero*, in his history of ancient Egypt, mentions the pitiful funeral ceremonies performed in the villages over the recruits selected for the wars. As no soldiers ever returned, the draft was looked upon as a sentence of death. In the higher density of modern times, immensely larger forces are engaged, but the percentage killed has been constantly decreasing, and is now quite small. In 1870, it is said that nearly 4,000,000 French and German were mobilized, probably more than the total population of most of the great civilized nations of antiquity, and yet but a small percentage were killed, but the ancient servile rebellion in Sicily is said to have cost 1,000,000 lives, and the revolt of the Italian allies—the social war—destroyed 500,000. *Paulus Æmilius*, at the conquest of Epirus, murdered or carried into slavery 150,000 people. It was significantly said that slaves were transported into Italy to be melted down, for they were slaughtered on any pretext, even for amusement. The awful losses of ancient wars merely prove that in all species, primitive man included, the search for food leads an enormous proportion to destruction.

### BENEFICENCE OF WAR

There have recently been several notable publications showing the necessity and beneficence of war—and one by a woman at that, *Mrs. Adelaide R. Haldeman*, editor of *The Modern World* (Denver). Two articles, one by *Capt. A. T. Mahan*, of the Navy, on "The Neglected Aspects of War," and the other by *Mr. John Bigelow*, the aged diplomat, both explain how war in time always settles great policies in favor of the highest. The old saying that war never settles anything except which contestant is the strongest, is wholly false. It settled the question of slavery in America. Curiously enough, the real basis of war —overpopulation—has not been mentioned by any writers who have ever touched the topic—and they are legion. It is not

surprising, then, that *Andrew Carnegie** could quote a host of men, who, in the last 3,000 years, have considered war nothing but an evil, as though harmful habits could survive. Another article against war, written by *Prof. David Starr Jordan*, President of Leland Stanford University,† speaks of the "survival of the unfit."

War still gives an advantage to the fighter, and a big one, too, so that it is not true that war destroys the best we breed and leaves the human harvest to weaklings. Indeed, statistics prove that the longevity of professional soldiers is greater than civilians, due, in part, at least, to the fact that they are a selected class, but the losses in battle are so small that they no not reduce the chances of life very materially.

*Benjamin Franklin* said, "There never was a good war or a bad peace," but it is as safe to say the opposite, for both are bad and good at the same time. Indeed, *Von Moltke* said, "War is an institution of God, a principle of order in the world. In it the most noble virtues of men find their expression—courage as well as abnegation, fidelity to duty, and even love and self-sacrifice. The soldier offers his life. Without war the world would fall into decay and lose itself in materialism."

### MURDER FORMERLY NECESSARY

As ancient wars were always for the express purpose of murdering competitors, it is evident that if war did not occur there were other forms of murder, and the strange ways in which they replaced war show the ancient necessity for these "blood lettings." *Gaglielmo Ferrero*‡ states that there is no idea of murder or of life and death among the lower animals. They simply kill in rage or to quiet the struggles of the prey they are to eat, and they never kill each other to thin out the population, so that there will be enough food to go around. Their struggle for existence is on an entirely different basis. Man alone knows that there is death; he alone deliberately kills off other men or animals inimical to his welfare. *Ferrero* states that this discovery

* *Popular Science Monthly*, May, 1906.
† "The Human Harvest," American Unitarian Association, Boston, 1907.
‡ *Popular Science Monthly*, October, 1897.

of primitive man that there is death, is one of the greatest and the most fundamental. There is one animal, by the way, which has a distinct idea of murder and which murders its kind, male and female, for the same reason that man does murder; that is, elimination, so that there will be more food. That animal is the ant. Not only does it war on other species, but one nest or colony will war on others of the same species, to kill it off and secure its food. It is not struggling for existence against enemies, nor are there any combats of the males for the possession of the females, but it is a war of extermination just as in human societies. It is curious that these necessary wars to overcome crowding should be found in animals organized into societies like man—the animal, too, approaching nearest to him in co-operative intelligence.*

The story of the murder of *Abel* by his brother *Cain*, is primitive man's way of describing a great natural phenomenon. Perhaps, indeed, he tried to explain the origin of so universal a custom. At least he grasped the idea that man began his existence by murder of competitors, and has continued it ever since, if not in one way then in another. Head-hunting is still considered a very laudable practice, and the Igorrote maiden will not accept her suitor until he has brought in the head of a victim from some other tribe.

## LEGAL EXECUTIONS

As a general rule savage and semicivilized countries are more crowded proportionately to their saturation point than the civilized, and there results a greater contempt for human life. Its cheapness astounds white men on their first visit to the Orient, where, under native rulers, death is the penalty for so many trivial offenses. As we go back to our own ancestry we find

* Ferrero says: "Who could enumerate all the means invented by men to exterminate each other in turn, from the spear and the yataghan to shrapnel, from hemlock to prussic acid, from Greek fire to dynamite? Were we to try and calculate, even roughly, the number of human beings who have died a violent death at the hands of their own kind, even during that period alone which has elapsed since the dawn of history, the total reached would be undoubtedly monstrous. One of our ancestors' chief amusements consisted in the destruction of other men—the exterminating of other human beings. History is little more than an interminable series of murders, individual and collective, one more ferocious than the other."

similarly a greater and greater cheapness of life, until we reach the time when a man had to murder his neighbors or starve to death. The large numbers of executions for witchcraft a few centuries ago are almost incredible,* but they resulted from the very cheapness of life. In England there were two hundred offenses punishable by death.†

### FATAL CUSTOMS

It is a curious fact that crowded people frequently tolerate fatal habits and fatal superstitions, and they can be explained in no other way than as of some benefit to the species. This law of biology, by the way, is universal, and extends to such an extreme that now and then we find species survive only by the death of the parents at procreation. For instance, by natural selection, only those salmon survived which could go up the streams to the head waters, probably during the time that the ranges of mountains were being formed. Finally, the streams became so long and swift that not a single one reached the ocean alive. It is a popular error that self-preservation is the first law of nature, whereas, it is only a small part of the law, and at times self-destruction is necessary. Every habit exists because its ultimate use is for the species; if it is also good for the individual it is only because it permits him to care for the survival of the species. It is certain, then, that when we find fatal human habits, they must be useful to the species, as, for instance,

* J. H. Long, *Popular Science Monthly*, July, 1893.

†"A great variety of methods of inflicting the death penalty has been devised by the inventive mind of man. There is the *burning at the stake* by the Romans, Jews, ancient Britons, Chinese and by the Spanish Inquisition; *beating with clubs* in Greece and many African countries; *beheading* by axe and block, the sword and the guillotine; *blowing from a cannon*, either by lashing the condemned to the muzzle or by thrusting him into it as a part of the charge; *boiling* in water, oil, melted sulphur, melted lead; *breaking on the wheel; burial alive; crucifixion*, a lingering method in which death was sometimes hastened by the thrust of a spear or a blow with a club; *crucifrangium*, inflicted on Roman slaves and Christian martyrs by laying the legs of the condemned upon an anvil and fracturing the bones with a heavy hammer; *decimation*, used upon mutinous regiments by shooting every tenth man; *dichotomy* or bisecting the body with a saw; *dismemberment; drawing and quartering; drowning; exposure to wild beasts; flaying alive; flogging; knouting; garroting; impalement; the "Iron Maiden"; "peine forte et dure"; poisoning; pounding in a mortar; precipitation* from a great height; the *rack; running the gauntlet; shooting; stabbing; stoning; strangling; suffocating.*"—Dr. E. A. Spitzka. *Proceedings American Philosophical Society.* 1908.

the awful loss of life from serpents in India, due to the veneration and religious worship of these animals.* Surely the only possible reason for the survival of this custom, centuries old, must be getting rid of surplus men. It might be said that these few thousand deaths are not a drop in the bucket when compared to the 400,000,000 living yet; these deaths are merely one form of many fatal habits in dense populations. In savage life the king's spirit is supposed to be accompanied to heaven by those of the attendants slaughtered at his funeral—wives, slaves, and even his children.

## SUICIDE

Suicide is so universal among lower races that it must also be considered one of the means for reducing population to its saturation point. If at any time the stress of life is so severe that the life is not worth the living, it is quite natural that self-destruction should follow. The suicide or murder of the widows of lower races is of this type. They preferred death to the awful life of a widow. This mode of death in India nearly doubled the death rate, for every man's death had to be followed by one or more suicides. Natural selection alone can explain such a custom.

Defeated generals formerly always killed themselves, for their subsequent life was not worth living. "Victory or death" was not a mere play to the galleries, but a vital necessity. The Moros and Moors at present carry on war the same way. There is no such thing as surrender, for they fight until killed—capture is practically impossible, and impractical if possible, for they take up the fight as soon as released. The Japanese have a remnant of the old style warrior feeling when suicide was a virtue in certain situations. In civilization, nearly every suicide is insane, more than fifty per cent. being proved to be the mental depression of neurasthenia, a few killing themselves in preference to the life of disgrace after being detected in crime, so that

* A newspaper clipping says: "The number of Hindoos killed by snake bite in India in 1899, was greater than English total losses through the Boer War. The official statistics just issued show 24,169 deaths from snake bites. The total number of deaths in India from wild animals that year was 27,585, the highest since statistics have been collected. Tigers killed 899 human beings."

suicides of normal men are found mostly in the lower races just where the overpopulation is the worst. *Doctor Miller*, at the 1897 Congress of Psychology, reported that there are 50,000 suicides annually in Europe alone. He blames alcohol, yet we know that alcoholism is a symptom of the conditions causing suicide; also we know that the loss of life from the gradual increase of other nervous diseases among the most highly developed people can never be checked, as the high-strung, nervous system is an increasing result of civilization.

### MURDER OF THE INFIRM

Murder in primitive times was not confined to strangers or competitors, but members of one's own family were the victims by necessity. Works on anthropology refer to the universal custom in a certain stage of civilization to kill the infirm, crippled, sick and aged. It was demanded by self-preservation, or rather, family or clan preservation. Young men were too busy keeping themselves and their babies alive to have a moment's time or a crumb of bread for the old folks. Indeed, they would have been weakened themselves beyond the survival point had they cared for those who had outlived their usefulness to the family or clan. The survival of the useful demanded the destruction of the useless, and only those tribes or families survived who practiced this awful custom. Man was in that large class of lower creatures which die as soon as they have prepared their offspring for survival, and being of no further use, nature eliminates them. When a monkey is ill its companions worry it to death or will kill it, if given a chance, and in some species they drown the sick by throwing them into streams. Even the buffalo had a custom of excluding the old bulls from the herd—they were "horned off," but remained in the vicinity of the herds, soon to fall a prey to wolves. It left reproduction to the strongest and best, and the habit grew up by natural selection—weaker herds descended from old individuals could not survive. The defense of the herd also demanded the young and vigorous. In human herds of savages the same law holds good. The natives of Fiji buried their old men alive, and this custom existed

throughout Melanesia, New Caledonia and in most of the adjacent Polynesian islands. The Australians abandoned the old people as soon as they lost ability to care for themselves and were a burden. In many parts of the world the aged were killed and eaten. *Grimm* says of the ancient peoples of Germany, they "killed the old and the sick, and often buried them alive." Very much later, when a higher civilization created more food the parents were given "dower rights" in the estate after being deposed by the children. It remains to the present time in the "parent's dower" on landed property among Teutons. In Japan there is a remnant of the same custom, for Japanese business men retire very early from active management in favor of their sons, but have a "dower right" to be supported as long as they live. Japanese business is in the hands of young men as a rule.

Destruction of the aged and infirm was a dire necessity among the Teutons and Slavs, even up into historic times. This necessity did not exist in those who migrated south, after their settlement in Asia, and it is not known among them, or in Greece or Rome. But there was a survival of this custom in ancient Rome. It appears that among the Aryans it was the custom to throw the aged from a bridge. "There is even at the present time, in one of the Hanoverian districts on the Elbe, which the Wends once occupied (Wendland of the present day), a Low-German saying which the people declare was once used as a prayer when the old people were thrown from the bridge into the water."* In Rome, the custom was forgotten, but the ceremony was kept up by means of straw figures (the *argei*), which the vestal virgins cast into the river from the bridge after prayers and sacrifices were offered on both banks to the river god. *Jhering* thinks they were sacrifices to satisfy the river gods who were offended by being fettered by a bridge, as it was done at the building of a new bridge and yearly thereafter.

In course of time the old did become of use, as we will subsequently explain. Civilization would die were it not for the experience, knowledge, wisdom and conservatism of the aged, and the process became reversed. That is, no society survived unless

* Jhering.

it did preserve the aged. As a rule, then, whenever prehistoric graves contain skeletons showing evidence of long continued disease, great age or deformity, it is positive proof that quite a high civilization existed. It must not be supposed that there were horrors connected with these murders—indeed, the old men recognized the necessity of reserving food for the young men—the hunters and fighters—and preferred death to starvation. Hence, it was honorable for old men to die, and they voluntarily offered themselves for sacrifice, securing thereby immortal life.

Human sacrifices to the gods have been well-nigh universal throughout the world at some period in the evolution of every tribe and race. There may have been too few sacrifices to make much difference in the food supply, but the custom indicates the remarkable cheapness of life and ancient overpopulation.

## INFANTICIDE

The gradual growth of infanticide can easily be traced to natural causes. We can presume that some form of permanent mating existed in man's immediate ancestors, and that marriage is immeasurably older than man himself, for our first glimpses of man reveal evidences of a family. We can also presume that in these primitive families, the causes of death were so numerous that there must have been fifteen to twenty children to each family, if two or three were to reach maturity and raise families of their own. As soon as man attained such a mastery over his enemies as to raise more children than the supposed two or three out of twenty, he was at once overburdened with children, as he could not limit the production.

The murder of infants, of course, must have suggested itself to primitive women in times of famines—and we find as a matter of fact that it was an universal custom, the little one being simply put out to die of exposure—rarely was strangulation the custom except when the mother died. The ancient Peruvians, for instance, strangled an infant with a string of hair cut from its dead mother's head, and buried the two together. It was more humane than to let the little one suffer to the inevitable

death—for no one could raise it except its own mother. Consequently, infanticide is an universal savage custom, a necessity of our own ancestors and still practiced in every low civilization. Throughout Polynesia it still survives, though more or less checked by civilized influences. It is common throughout Asia and Africa, and even Eskimos resort to it in times of famines. It was common even in high civilizations. It was compulsory in Sparta, and exposure is clearly stated to have been the practice among the Jews at the late date of the writing of *Ezekiel* (Chapter xvi). In China it is almost universal, for the civilization is stationary, and there is no increase of food production, so that the death rate must equal the birth rate. At a very low estimate there are 15,000,000 births yearly in China, of which fully 3,000,000 or perhaps 6,000,000 are destroyed. It is ridiculous for missionaries to buy up and save a few score of these —a mere drop in the bucket—and every life saved means one more to starve to death in future famines. The native Australians even yet are compelled to kill a certain percentage of children, as well as mutilate the husbands, after the birth of the second or third child, either by castration or by causing artificial hypospadias. It is said that the British precipitated the great Indian mutiny by forbidding infanticide at Oude. There is considerable evidence that lower animals occasionally kill their young—instinctively, of course. It has never been studied in detail, but it must be done in stress, for the same purpose that savage man does it.

In every modern civilization conducted by the higher races, there are descendants of the lower conquered types of Europe—real survivors of primitive man, or neolithic man or even paleolithic man. These hold to old ideas and customs with remarkable persistence. It is not at all strange, therefore, that we are regaled in the press with so many accounts of infant slaughter. Even the cool way in which some people accept the death of infants is a survival of the time when one less mouth to feed was an advantage. The great majority of modern civilized women are said to believe that it is not murder to kill an unborn infant in the first months of its existence, though not later, and the law makes this distinction.

### CALAMITIES

Such violent deaths as those by floods and volcanic eruptions are really remote results of overpopulation. The large rivers of China annually rise in flood and drown their thousands and occasionally their hundreds of thousands.* The last flood in Hyderabad, India, drowned 50,000 people. The danger is perfectly well known, and would be avoided if the people had any other place to go and were not simply forced into the danger zone to take their chances. Likewise, the danger zones around volcanoes are well known and would be avoided if possible, but the people must take chances that the quiescent interval will be extended. At St. Pierre there were 20,000 deaths in a few seconds, but this is insignificant compared to the hundreds of thousands or millions who were born, lived and died around Mt. Pelée since that volcano last destroyed the people. The same rules apply to the loss of life around Vesuvius—the loss at Pompeii is a mere drop in the bucket of the life that has existed in that region before and since. The above was written while the author lived in Batangas, Batangas Province, P. I., a country composed exclusively of materials thrown from Taal volcano, fifteen miles away. Innumerable villages and cities have been destroyed in this area, and yet so great is the stress of overpopulation that each rises flourishing like a Phœnix from its own ashes. The recent dreadful loss of life in southern Italy will not make the slightest difference as to future density. After similar disasters in the same place, people crowded in again, even though the danger was known.

The violent deaths of great calamities increase in number, of course, with the saturation of the land. The vastness of the calamities in the densely packed parts of Asia can well be understood. The Yellow River, for instance, which is five times the volume of the Danube, has brought down such huge quantities of silt that it has made flat lands of many hundreds of miles in

* "There is terrible destitution in the Yang-Tze districts," says a despatch to the *London Times*, "owing to the recent floods, which have not yet subsided. More than 10,000,000 persons are homeless. It is feared the distress will promote civil disorder during the coming winter."

extent. These have been settled upon for some 2,000 or 3,000 years, as they are so marvelously rich. To preserve them from the annual overflows, the banks were raised by dikes, but the river filled with mud and the banks were raised until the river bottom is now above the farms. In 1886, the dikes broke and the resulting floods drowned 7,000,000 people. The Government, after these disasters, simply dikes the river in its new channel, and then people from hundreds of miles on each side flock in, take up the newly drained flooded land, now without landmarks of any description, and in a few years the land is as crowded as ever. It is impossible to keep people out, for the tendency is to fill up every spot which will yield a living, even if it is periodically wiped out. Huge disasters do not reduce the world's population by one soul in the end, for the loss is instantly repaired.

The casualties in war have really become much smaller than those, due to modern factories and railroads. The British losses in the three years of the Boer war were less than our annual railroad holocaust, and our yearly accident roll is double the total killed and wounded in the late Manchurian war. So that war has forever ceased to be the main means of reducing populations. Other forms of death replace it, and preventable destruction of life still goes on. Nevertheless, the English still build battleships for all the world, and the *Krupp* works, though employing 56,000 men making guns to murder populations, cannot fill the demand.

# CHAPTER X

## FAMINE

FAMINE CAUSES WAR AND FOLLOWS WAR—FAMINES ARE LOCAL AND PERIODICAL—INDIAN FAMINES—CHINESE FAMINES—OLD WORLD FAMINES—JAPANESE FAMINES—AMERICAN CONDITIONS.

### FAMINE CAUSES WAR AND FOLLOWS WAR

Deaths by famine are the ultimate outcome in every community where other means of relieving the overcrowding have failed. It seems almost too simple to mention that people cannot live without food, and yet it is necessary to emphasize the fact that famine at once reduces the population to the point where there is enough to go round. The close association between famine and war has been noticed for ages and it is almost always assumed that war causes the famines. They generally follow wars, of course, because agriculture is apt to be interrupted. In the Philippines, for instance, several provinces were in a deplorable condition in 1903 from this cause. The famine in Japan, in 1906, had no relation to the Russian war, so it is said, but was a local phenomenon caused by crop failures due to unprecedented dryness of the season. Nevertheless, lack of labor may have been a contributing cause, as many of the farmers had been drafted into *Kuroki's* army from these Northern districts.

This must not blind us to the fact that famine or lack of food is generally, if not always, the first cause of war. Even our civil war was so caused. The slave holders saw the destitution to come by the abolition of slavery, and the final result fully came up to expectation. Our sympathy for the slaves has entirely blinded us to the greater though silent and proud suffering in the South which followed our Civil War. For a principle needed in advanced civilization, we injured the best to help the worst, and did it for the good of the nation as a whole.

## FAMINES ARE LOCAL AND PERIODICAL

Starvation is always local, and even then it affects a few only. It can never affect all nor be widespread. *Malthus* and all writers of that school ignored this fact, and assumed that in time overpopulation would cause universal suffering. In his time, and before, and since, the invariable rule of nature is that a few must die that the rest may live. There is thus always a compensation whereby populations are quickly reduced to the proper numbers as soon as they become too numerous. Famine, then, is a normal phenomenon in every stage of human existence. In the lowest savage races it might destroy forty to fifty per cent. occasionally, but in higher nations it rarely kills more than five to ten per cent. The numbers look huge in Chinese famines—10,000,000 deaths—but the percentage is about two or three. In ordinary savage life starvation occurred periodically. Where provision had to be made to tide over from season to season, accidents might happen and food be scarce. My own investigations in California, showed that every thirty or forty years there occurred a great snow which prevented the improvident from getting food, and nearly all of the very young, the old and feeble starved to death; only those survived who were strong enough to seize the stores of food.

When we come to the crowded communities who cultivate land a new element is found. It is now known that the weather conditions go in cycles, and that there may be a succession of good years and then some bad years. This has been our experience in America for a century. The curious result of this investigation in India deserves mention. It has been found that these cycles agree fairly well with the regular eleven-year cycles of sun spots. The way one affects the other is yet undiscovered, but it is probable that the sun spots only show cyclic variations in electric phenomenon, and these react upon the storms and vary the yearly amounts of rain. No matter what the cause, we know that in a succession of fat years, the saturation point is raised and the population increased. Then follow the corresponding lean years with reduction of saturation and

starvation of the surplus. Hence, famines have been periodical in the lower Indian races from the beginning of the first civilizations. British occupation of India has stopped the frightful but necessary destruction of life by native means, religious ceremonies, wars, infanticide, etc., so that its famines, though no more frequent, are now appalling. The famine of 1900 was worse than that of two years before, 4,000,000 being fed by government agents, some places being entirely destitute of both food and drink, and many millions of the starving could not possibly be reached. *Henry C. Potter* in the *Century* for August, 1901, says:

"During 700 years the warring races of Central Asia and Afghanistan filled up their measure of bloodshed and pillage to the full. Sometimes they returned with their spoil to their mountains, leaving only desolation behind; sometimes they killed off or drove out the former inhabitants and settled down in India as lords of the soil; sometimes they founded imperial dynasties, destined to be crushed each in its turn by a new host sweeping into India through the Afghan passes. The precise meaning of invasion in India during the last (eighteenth) century may be gathered from the following facts: It signified not merely a host of 20,000 to a 100,000 barbarians on the march, paying for nothing and eating up every town and cottage and farm-yard; burning and slaughtering on the slightest provocation, and often in mere sport. It usually also meant a grand final sack and massacre at the capital of the invaded country. And besides these wars from without were the intestine conflicts in which Hindu fought with Hindu, Mohammedan with Mohammedan, and each with the other. The readers of Macaulay will remember his description of the unspeakable brutalities of the Mahrattas. The story of the bloody ravages of Pindarees, of the Sultan Mohammed Shah of Gulbarga, and of the Hindu Maharaja of Vijayanager (the first-named of whom swore an oath on the Koran that he would not sheath the sword until he had put to death 100,000 infidels), is told by Meadows Taylor in his 'Indian History,' with a ghastly detail that no one who has read it can recall without a shudder.

"With the maintenance and permanence of British rule in India marched the safety of life and property, freedom to go about unmolested on one's honest errands, the peace and good

order, in one word, of the social fabric. Under the present conditions the humblest Indian servant knows this one fact, which of all others is of paramount consequence to him; he is no longer the creature of another man's whim; his life, his property, his right to go to and fro, his family ties, his task or employment—all these things are within his own control."

## INDIAN FAMINES

As long ago as 1893,* *Mr. C. E. D. Black*, in official reports from India, stated that the famines were merely local phenomena due to lack of means of transporting foods from the areas where a surplus existed, and that this condition of affairs was mainly overcome. Yet, after fifteen years the famines are worse than ever, because increased transportation of foods merely increases the density of population and there is a larger number to die in the lean years. As a matter of fact the population has increased at the rate of eleven per cent. per decade, while the cultivated area increased only eight per cent., so that three per cent. of the people must die of starvation if other factors are ignored. Indeed, the two famines of 1896–7 and 1899–1900 did lessen the population by 21,000,000 souls, although very conservative estimates reduce this number to 15,000,000 for the whole period of 1860 to 1900—a palpable underestimate.

England is constantly increasing the food supply. The fertility of the Punjab has been restored by great irrigating works; in Southern India the whole course of the river Peryar has been changed to semi-arid districts, and throughout this whole country—nearly half as big as Europe—vast tracts of almost virgin soil are being brought under cultivation. Why has not all this extra food lessened the famines? Simply because it has raised the saturation point, so that in 1901 there were 45,000,000 more people in India than in 1872. In this one generation England caused to exist more Indians than there were people in the British Islands, and simply by producing the food for them. Yet there are more babies born than can be fed, now as always, for nature persists in overcrowding. Population is like a street

* See *Popular Science Monthly*, November, 1894.

car—always room for one more. Even should England treble the present food, it will only result in trebling the population. The present population uses only part of the land, and we can expect future food increases. Most of the survivors of this modern civilization thrust upon India are creatures of limited intelligence, who are incapable of adding to the world's stock of goods or knowledge. It is said that at all times about 40,000,000 people cannot get enough food to satisfy hunger. As far back as 1826, *Bishop Heber* reported the same conditions. A new fad has come up in the way of blaming England for this, and one clergyman states that it is all due to heavy taxes, while at the same moment he shows that it is due to the inability to get the food, for, strange to say, India exports food. It is estimated that 100,000,000 Indians do not earn more than $5.00 a year—though this may be an exaggeration, it is mentioned to show that if this clergyman had food to sell in India, he would always sell it at the market price. As the native has no money to buy it goes out of the country to people with more brains. Over-taxation is nonsense—our own Indians in identical conditions were not taxed at all. The Government—poor thing—is criticized for not bringing more land under cultivation to relieve the famine, but that is what the Government has been doing, and the result is merely increased population. The percentage of starving is the same, but the total is larger. Attempts to relieve the suffering only increase it!

### CHINESE FAMINES

Years ago, the *Rev. Arthur H. Smith** said: "The terrible inroads of the great T'aip'ing rebellion, followed by the only less destructive Mohammedan rebellion, and by the almost unparalleled famine of 1877–78, extending over five provinces, reduced the total population of China, perhaps by many scores of millions." He notes the terrible overpopulation, occasional awful famines, and the wonderful recuperative power, due to a high birth rate. He also notes the large number of old people (who, by the way, are venerated and preserved as nowhere else on

* "Chinese Characteristics," Revell Co., p. 144.

earth), and the death rate must be largely due to the death of children, the greater number of whom die of convulsions in the first few months. In 1902, in the province of Kwang Si, fully a million Chinese were officially reported as starving, and indeed, there was fear of depopulation. Missionaries fed a few hundreds for the next famine to destroy.

In 1907, there was an hysterical appeal by *The Christian Herald*, of New York, for funds for the famine of that year, when 15,000,000 Chinese were reported as starving, but all the money collected was thrown away as far as relieving the basic conditions. Starving Chinese were selling, drowning, and even eating their own children, horrible as this may seem, but we were saving a few and placing a premium on their lust for posterity.

## OLD WORLD FAMINES

Within recent years famines have been reported from almost every part of the world, even from East Africa, where the Government was trying to feed 50,000 natives of Uganda, where crops failed. It would be impossible to mention all the stricken spots. Even the famines of Ireland seem to come as often as ever, if not more often, although they are now more localized. Indeed, there are hundreds of spots, such as Achill Island, where the peasants are ever on the verge of starvation, although nearby each place there are untold thousands of acres of productive land uncultivated, and, of course, the slightest interference with their usual food supplies is followed by real famine. In 1903, the press was full of accounts of the famine in Finland, which was described as worse than that of 1867, when 100,000 died of starvation and its consequences. In 1903, Sweden also appealed to the world for aid when crops failed and they had nothing to sell for food. Macedonia suffered in 1904.

In parts of Russia famines may be described as chronic, and in many places the peasants, through the ordinary laws of selection, have developed the well-known ability to sink into a kind of hibernation, which they have practiced for so long a time that it has a special name—*lotska*—which is interpreted as "winter sleep." Whole families sleep all the time, except for a few

minutes once a day, when they each take a nibble of bread and a drink of water, one person being on watch to keep the fire going. Some Eskimos have a greater ability to sleep through the winter with less food.

Consequently, the famine reports from Russia are annual, although they are worse in some years than in others. Modern news agencies have merely made the facts better known, though there is a general impression that the conditions are new. In 1901 it was said that the conditions could scarcely be worse, when an area three times the size of France, with a population almost as big as the United States, suffered failure of crops, and only two of the seventy odd provinces "were officially returned as having fairly good harvests." Nevertheless, in 1906 and 1907, worse famines were reported, for the sufferers were estimated as 20,000,000. The peasants were then selling their daughters into Mohammedan slavery, though there is evidence that they have always done this. People who get hysterical over Russian famines, must remember that Russia is undersaturated, and always has enough food which it exports to more intelligent buyers, mostly in Holland, Belgium, Denmark and Scandinavia. In spite of overpopulation of inefficients, all the Slav countries are really undersaturated, and are exporters of food—Hungary, Bulgaria, Rumania and Servia—and yet suffer from famines more than the rest of Europe. The Balkans require periodical "blood-lettings" now as ever. We cannot understand their desire for war, but they like it more than famine. European concerts will not pacify the Balkans for a long time—even treaties are violated with impunity.

It is easy to understand why it is desirable to have an occasional "blood-letting" in Russia, by means of a foreign war. The peasants themselves desire it, indeed, the magnificent way they fought in Manchuria against such great odds should silence forever the foolish cry that they are mere animals goaded into battle by a brutal government. They were fighting for more land, just as the Japs were, and the fittest survived in Corea and Manchuria, as in every other war for land.

### JAPANESE FAMINES

There is no difference between Russian and Japanese famines. The Orientals have been so chronically underfed that only unceasing toil and economy keep them alive, and "even then the most awful famines, sometimes sweeping off a million or two people, have been recurrent, even to monotony, as the historic records show."* The nation has not felt the blood lost in the Manchurian war—has been benefited, indeed.

Murder and starvation, then, are the two great alternatives of old, one taking the place of the other as a means of reducing surplus populations. Where a population is adjusted to constant blood-lettings, a long peace increases the numbers so greatly that dreadful suffering results. For instance, the long, profound peace in Italy has brought about a pitiful condition of overcrowding and starvation, from the saving of lives, formerly destroyed in almost constant war. It is described by *Mr. Edward C. Strutt*,† "Famine and Its Causes in Italy." He mentions how the people even commit crimes so as to be sent to jail—the prison ration being a princely fare compared to their home food. There is an enormous number of women sold into prostitution, and a revival of the *jus primæ noctis* exacted from serfs and tenants by petty lords for small loans. The worst conditions are in the richest regions, as we would expect, because the richest places always have the densest population—Sardinia, Sicily, Calabria and Apulia. No wonder people from these places are pouring into other countries at such a tremendous rate. The majority of these emigrants are the Southern type, more stupid than the Northern Italian, many of whom are of Aryan extraction or remnants of Germanic invasions in historic times.

### AMERICAN CONDITIONS

What an improvement on all this there is in America, where the deaths from starvation are so few as to be negligible, and

* Dr. W. E. Griffis, formerly of the University of Tokyo, *The Times*, New, York, May 6, 1906.

† *Monthly Review.*

chronic distress affects but one-eighth of the population—a state of prosperity probably unequalled in the history of the world. *Mr. Robert Hunter*, instead of wrongfully accusing economical conditions for the distress of one-eighth of the people who are underfed, should be thankful that they render seven-eighths of the population beyond the possibility of suffering for the necessaries of life. We cannot repeat too often—that he will not find another nation on earth in which anywhere near seven-eighths of the people are so well off. In spite of the slight overpopulation which exists here, as in every other inhabitable place in greater degree, we are reaping the benefit of living in a new country whose wealth had not been extracted by the native Indians. The starving in New York City are a tiny fraction of the population.

A century ago, following the publication of *Malthus'* book, there were long discussions as to whether increase of food caused populations to increase, or whether the increased population demanded more food which was thereupon produced to supply the demand. No such discussions would have been made if it had been realized that the periodical famines show that populations depend upon the food, and that the biblical famines, when *Joseph* ruled Egypt, have always been with us as one of nature's means of keeping down populations which have increased beyond the average food supply.

# CHAPTER XI

## NITROGEN STARVATION OR THE MODERN FAMINE

NITROGEN IS THE BASIS OF LIFE—SOURCE OF NITROGEN—NITROGEN IS OUR MAIN FOOD—RESULTS OF NITROGEN DEFICIENCY—NITROGEN NEVER IN SUFFICIENT AMOUNTS—DEFECTIVE DEVELOPMENT IN NITROGEN STARVATION—DISEASES OF THE NITROGEN STARVED—THE DANGEROUS FAD OF LOW NITROGEN DIET—THE HIGH PRICE OF NITROGEN.

### NITROGEN IS THE BASIS OF LIFE

Only within a few years have scientists awakened to the importance of the nitrogen part of our food, consequently the subject of nitrogen starvation is so new that it is popularly unknown. As it is the particular form of modern underfeeding, its discussion is of more than ordinary importance. Not only does it prove that there is overpopulation in every part of the world at the present moment, but the facts elicited are of enormous hygienic importance in that they show very clearly the dreadful results of improper feeding, rather than lack of all food.

The chemists of the last generation inflicted almost irreparable damage on the science of dietetics, from which it is just recovering. The first organic substances investigated were the starches, sugars, alcohols and similar carbon compounds excreted by living cells—just as honey is excreted by the bee. Hence, the idea grew up that the basis of living tissues or the center around which all organic compounds are built, is an atom of carbon, and it is still taught here and there. The real truth has not yet been fully grasped—every living substance is a nitrogen compound. All the other included substances like sulphur, phosphorus, carbon, hydrogen, oxygen and iron are built around the nitrogen atom.

The food of both plants and animals is composed essentially of nitrogen and oxygen. Carbon is essentially a fuel, and its

compounds are burned up to produce heat and energy, though of course, nitrogen compounds (proteids) can also burn up to furnish heat and energy. Indeed, one scientist* actually asserted that the nitrogen compounds are the only source of muscular strength. The law applies to man as well as bacteria, for neither can grow or flourish without nitrogen. The young ovum of man feeds upon proteid exclusively for awhile, but as it grows larger and larger it needs carbon and other things in fats, starches and sugars. Consequently, the proportionate amount of animal food, or rather nitrogen, is greatest in infancy, and progressively diminishes until growth is finished, when only sufficient is needed to keep up repairs. As age progresses, less nitrogen is needed for repairs, so that we find the diminution of proteid food continues until it is reduced to a very small amount in old age. Carbon compounds, fats, sugars, etc., are like the fuel of a locomotive, and are needed in amounts proportionate to the heat or work expended. Men in cold countries must eat more of them than in hot, and muscle workers need more than the sedentary. A small slow ship burns less than a big fast one, and each needs more in winter than in summer. The number of men who can live in a place is, then, essentially dependent upon the amount of nitrogen available. Consequently the whole problem of the future centers around the nitrogen question. If the nitrogen gives out, the people disappear, and if it is abundant, dense populations are possible.

Nitrogen salts are first taken from the soil in solution by the rootlets of plants and stored up for animals. Man sometimes gets his nitrogen from the grains, fruits, nuts, peas and beans, and sometimes he takes it in milk, eggs and flesh of animals, who in their turn have received it from plants. We often exhaust a thin soil of its nitrogen by a few crops and the farms become worthless unless the nitrogen is put back. *Von Liebig* asserted that the real reason for the decline of ancient civilizations, particularly Rome, was the rapid exhaustion of nitrogen from the soil. In Egypt, the annual floods renew the supply in the mud deposited. Of course, there are other ways of exhausting a soil, for plants need other things from the earth, but we are here

* Pfeiffer.

dealing with the nitrogen solely. We find, then, that if a farm is to continue to produce food, nitrogen must be constantly supplied to it by manures or guano or one of the other numerous kinds of nitrogenous fertilizers. The nitrogen compounds are broken up by the soil bacteria into soluble compounds and absorbed by the rootlets in the water they take up. The whole question of food resolves itself into a matter of obtaining nitrogen to put into wheat and corn and hay. We need not discuss the production of artificial foods because they all come from the soil eventually. We are limited to the amount of vegetation we can produce, *i.e.*, our nitrogen and the amount of the sun's energy we can capture in this way, for we are rooted to the soil.

## SOURCE OF NITROGEN

*Prof. Emil Fisher*, of Berlin, has shown that nitrogen, or rather protein, is our principal nourishment, and he has made considerable progress in analyzing it. He has even made some of its simpler forms—but it is merely academic knowledge. We must get our nitrogen food from plant activities, and they must receive it in solution through the roots. To replace the nitrogen extracted by the rootlets, farmers had a supply in their manures, but it proved insufficient. We discovered and used up the fossil manures of the guano beds, and then we began the use of ammonium sulphate derived from coal tar, but this, too, is limited in amount, and finally we find that the Chili saltpeter beds, our next supply of nitrogen, will be exhausted in some centuries at the present rate of exportation. Some free nitrogen is fixed in the soil by electric discharges, but so small in amount as to be of no practical importance. *Prof. E. Henry*, of Nancy, France, has discovered another source of nitrogen in the soil of forests. He has proved that the leaves in decaying, actually accumulate nitrogen, so that after they rot it is richer than before, and it is supposed to be a result of bacterial growth. The increase in forest-soil nitrogen is greater than the losses taken out by the tree roots—hence, forest soils increase in nitrogen, and we have another way of storing it.

Recent botanical literature puts an entirely new face upon the

nitrogen question, and the discoveries show that our danger of nitrogen starvation is quite remote. *Prof. Henry A. Weber** in his address as Vice President of the American Association for the Advance of Science,† gave a résumé of these discoveries relative to the absorption and storing up of free nitrogen of the air by certain classes of plants. It was formerly taught that plants could utilize only the nitrogen of the soil, and if the soil had no nitrogen the plant would have no more than that contained in the seed from which it grew, and would die of nitrogen starvation eventually. The early investigators proved that plants could not directly assimilate the free nitrogen of the air, and it is only in recent years that it has been shown that certain plants can utilize it indirectly through the intervention of bacteria. The legumes, and especially alfalfa and the clovers, are now known to harbor certain bacteria in their roots, and these cause the peculiar tubercles characteristic of these plants. It is a pure case of commensalism, the plant giving certain things to the bacteria, and the latter are able to absorb the free nitrogen of the air in the soil, and fix it into compounds, which are utilized by the plant. Thus peas and other legumes can grow in soil free of nitrogen, provided they are infected with the necessary bacteria. Whereas, in soil free of nitrogen, legumes not infected, and all other plants, infected or not, will cease to grow as soon as they use up the nitrogen in the seed, and will then die of nitrogen starvation.

After a clover crop, the roots have thus enriched the soil, and this explains the practical fact utilized by farmers for thousands of years, that if they want large yields of grain or other plants, which are able to use only the soil nitrogen compounds, they must precede the crops by one of clover, or peas, or other legumes. These recent observations "point out the way of securing from the free nitrogen of the air an ample amount of combined nitrogen to meet all the requirements of intensive farming. They make the farmer independent of the natural deposits of nitrogenous fertilizers, and furnish him the means of preventing his helplessness, in case these sources of plant food should become exhausted or otherwise available." In the above

* Ohio State University. † *Science*, January 2, 1903.

paper by *Weber*, the term *nitrogen starvation* is used to describe the condition of those plants deprived of sufficient nitrogen. It has never before been applied to animals, because they so promptly die in the struggle for existence. Hence, we have not noted it in man, the only animal which, through serious overpopulation, is deprived of the necessary amount of nitrogen.

*Prof. T. J. Burrill,** denied that the bacteria in the root-tubercles of legumes do absorb free nitrogen, but that it is the work of other bacteria in the soil, as in the forest forms. It is immaterial which do it, so that it is done—this detail is only a minor quarrel.

It can be said that we have heretofore depended upon bacteria to capture free nitrogen of the air, feed it to plants who store it up for us in the grain or grass, whence it makes its way to the bodies of cattle from which we in turn derive it. It is finally thrown away in our sewers. This method of increasing the nitrogen is already a commercial success. The dried bacteria are sold to the farmer who places them in water along with sugar and other foods, so that they multiply enormously. This water is then sprinkled on the soil or the grains, inoculating them with the bacteria which are to feed nitrogen to the new plant.†

Yet all this does not give us nearly as much nitrogen as we will need. The outlook seemed to be rather bad with prospects for a reduction of our saturation point, when science again stepped in, and by a series of discoveries has actually increased our nitrogen food by obtaining it from the air. There are 33,880 tons of the gas pressing upon each acre of ground, and this is the total amount of nitrogen in 1,500,000 tons of saltpeter, and it is found that we can capture all we want without resorting to bacteria. *Sir Wm. Crookes*, President of the British Association for the Advancement of Science, delivered at the 1898 meeting, in Bristol, a doleful address predicting nitrogen exhaustion in 1931, at our present rates of consumption. He failed to note the tremendous wheat areas still available, yet all

* *Science*, September 30, 1904.

† Mr. David Fairchild, of the Bureau of Plant Industry, has shown the great increase of nitrogen by inoculating soy beans.—*Farmer's Bulletin*, No. 315.

this land needs nitrogen eventually or it will not bear wheat, and it is nevertheless, a question of nitrogen whether we have or have not millions of acres of new land easily exhausted. We cannot get something from nothing, to get nitrogen out of the soil we must put it in. *Sir Wm. Crookes* gives the solution himself in his own invention whereby we can get the nitrogen of the air in oxides by means of electricity. Companies have been formed for this very purpose, using the Niagara power here, and other water powers in Norway, to make nitric acid and other nitrates, and it is freely predicted that this invention will enable us to get unlimited fertilizers when we need them. The process has not yet proved commercially practicable for the production of fertilizers, but fortunately *Dr. Adolph Frank*, of Charlottenburg, Germany, discovered a far better method of fixing the free nitrogen of the air by simply passing the gas over hot calcium carbide with which it combines to form calcium cyanamide. This substance proves to be an excellent fertilizer, as good, or perhaps even better, than ammonium sulphate derived from coal tar. *Dr. F. Löhnis*, of Leipsic, has shown that it is readily attacked by soil bacteria, which reduce it to a soluble form readily absorbed by the rootlets. Companies are now formed in Europe to manufacture calcium cyanamide (Kalkstickstoff) on a large scale. It might be of interest to note that the nitrogen gas is first obtained in a liquid form by liquefying the air and distilling off the oxygen. *Doctor Frank's* discovery was first mentioned by *Prof. Ira Remsen*, in *Science*, January 1, 1904, and another process invented by *Doctor Erlwein* was described by *J. W. Crowell*, in *Science*, for January 29, 1904. The whole matter was soon put on a practical basis, and we have thus raised our saturation point again, because we can raise more food per acre than ever before. This means that there will shortly be many more millions of people in the world as a result of this one discovery.

### NITROGEN IS OUR MAIN FOOD

We can now note the fact that nitrogen is the main reliance of crowded populations all over the world, and that every single one of them except the flesh-eating savage, is partially starved

for nitrogen. The facts we are about to mention merely reduce the question of starvation to finer terms—the lower the civilization the less able are they to obtain nitrogen. In civilization itself, only the less intelligent classes are unable to obtain sufficient.

Civilized countries which import foods, depend upon nitrogen —meats and wheat. The point of the matter as to nitrogen is this: for a century there has been a perfect stream of it, almost a flood, poured into that Northwest or Aryan Corner of Europe, which will occupy so much of our attention. Nitrogen from all over the world keeps it supersaturated with people. A century ago, things were very gloomy in England. *Dr. E. S. Holden** says that there was a succession of bad harvests, wheat went from thirty-four shillings per quarter, in 1780, to eighty-seven, in 1820, and *Malthus* could not see anything but starvation if more babies appeared. Then started the stream of nitrogen which supports a population denser than *Malthus* ever imagined was possible. If all the excreta of men and animals could be kept and put into the soil again, instead of run into the ocean, England would soon have more nitrogen to the acre than any place on earth, for it is said that she annually throws away in her sewage, soluble nitrogen compounds of the value of $80,000,000—a stupid way of disposing of it. We do the same, and then spend millions more to purify our rivers so that we can drink the water.

Nitrogen is so valuable in China and Japan that every bit of it is saved—human excrement brings a high price, and is the universal fertilizer. They thus return to the soil what we waste into the ocean, and with an inferior civilization, they support many people per square mile more than we do. But even with all their care, there is nitrogen starvation in China, where every form of animal food is used—even human flesh in famines.

It is to be noted that China exports very little nitrogen, but a great deal of starch in the form of rice. As this starch is obtained from the air there is little or no robbery of the soil. It is a curious fact that China raises fuel foods (starch) to sell to Filipinos and other nations, there being an enormous export trade, but

* *Munsey's*, September, 1899.

her starvation is more in nitrogen foods, the repairing and growth elements. She, too, is like a locomotive with plenty of coal, but too little metal for repairs of the old engines and for building new ones.

One of the foolish things which chemists and physiologists once taught, was to the effect that we must eat little animal food in the tropics because the native eats little. *Dr. H. W. Wiley*, the government chemist, repeated this orthodox error in an address before the American Chemical Society.* He actually advocated a fruit diet in the tropics, in spite of the fact that the British long ago were compelled to increase the meat ration of soldiers in India, as it was found that they needed more nitrogen for repairs on account of the greater exhaustions of the tropics. We once thought that our soldiers would be better in the Philippines if they ate less meat, and a prize was given to an essay which recommended that policy, but experience showed us that it was wrong, and the testimony is universal that they must have as much, if not more, than at home, if they are to be vigorous and properly nourished. The laborers on the Panama Canal were highly inefficient until the government established a good food supply in the way of meats.

The ration of the Danish soldiers in the West Indies is a pound of bread and four ounces of meat. Certain writers have therefore compared our ration to this, saying that ours was too liberal. How terrible is the mistake will be seen when we learn that these Danes have fifteen cents of money daily to buy extra food. As our total ration may cost only twenty or twenty-five cents, we see they are close on to twice as liberal as we are. A confirmation of this view comes from a foreign military surgeon. He shows that the nitrogen starvation is a great evil in overcrowded Europe also. *Dr. Albert Bernheim* † gives a résumé of a very valuable paper on "Albuminous Nutrition and Nutritious Albumen," by *Doctor Finkler*, Professor in the University of Bonn.‡ The details do not concern us, but what is of vast importance is the recognition of the fact that the lower one goes in

* *Science*, February 7, 1905.
† *Philadelphia Medical Journal*, March 9, 1901.
‡ Read before the Ninth International Congress for Hygiene and Demography at Madrid, Spain, April 10 to 17, 1898.

the social scale in Europe the worse is the food, in quantity and quality. Dividing the people into four classes, according to wealth, their food is in the following proportion, class one being the poorest:

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| Albumen..... | 100 | 117 | 153 | 159 |
| Animal Ingredients.... | 100 | 135 | 180 | 236 |
| Total Amount..... | 100 | 111 | 129 | 139 |

It was finally recognized that these poorer classes, hard workers by the way, are notoriously underfed, and even the rations of the armies are too small. The workers as a consequence become prematurely old and exhausted. *Finkler* is strenuous in his advocacy of increasing the proteids of all workers, and has constructed a combination of proteids which he thinks is the best, as it is wholly digestible. It is designed for use with nervous disorders needing albuminous food, and in wasting diseases needing nutrition. He believes the proteids are the most important energy producer for muscular work, as they alone can support life while the fats and carbohydrates cannot. He thinks all muscular energy comes from disintegration of albumen, which alone must be the supporter of muscle resistance.

*Frank G. Carpenter* says (Washington *Star*) of the Germans:

"I am told that the cost of the army is rapidly increasing. This is not so much in the amount paid by the government, but is the enormous sums which have to be contributed by the people to enable their sons to maintain themselves in good military style. The German government does not spend as much on its war department, including pensions, as we do upon our war department. The actual expense, however, is equal to two or three times what the government pays. There are 600,000 private soldiers in Germany who receive from six to twelve cents a day outside their rations. The rations are poor, and they must have more to supplement them. The result is that every family which has a son in the army supplies him with a weekly or monthly allowance as great as it can afford, and the total of these allowances amount to hundreds of millions of dollars a year. I have seen it estimated at $200,000,000, but it is probably more."

We have long been calling attention to the fact that our army ration at home is not big enough, and that if we base arguments upon underfed European armies we will starve our men. Even if our ration is bigger than the German, that does not prove ours to be big enough. The German ration is particularly deficient in nitrogen. Fuller details are given in an article by the present writer in the *New York Medical Record*, 1899.

### RESULTS OF NITROGEN DEFICIENCY

The agricultural stations in the United States have here and there conducted extremely valuable nutrition experiments in the line of high and low proteid food. At the end of the experiments the subjects were killed and the tissues examined. These results uniformly show that under low proteid, though the animal may be fat and apparently healthy, there is a reduction of muscle, strength of bone and of the vital organs, the chest is contracted, body stunted and blood deficient. To such an extent does all this occur that there is not the slightest doubt that low proteid feeding in any growing animal, man included, is one of the most dangerous experiments possible. *Dr. G. R. Pisek** uses these experiments to show the extreme danger of stunting infants and children by a diet which fattens them but starves them of nitrogen.

We now see why the best physical types of Filipinos are the Igorrotes, whose mountain life is, of course, in their favor, but who eat more nitrogenous food than the men of the lowlands. To be sure it is mostly dog meat, but that is better than rice. We now know that the tropical native of the lowlands wants and needs nitrogen, but it is unattainable. A little fish is about all he can get, and he has a veritable thirst for nitrogen which is almost insatiable. Native soldiers given our ration, eat the meat ravenously and call for more, and steadily improve in physique and endurance. When natives have a feast (*fiesta*) the principal articles on the table are meats with which they gorge themselves. Well-to-do classes in Porto Rico and Cuba are now known to eat as much meat as Northern peoples, even pork, the favorite of the Filipinos. The poor are the only ones

* *New York Medical Record*, September 9, 1905.

starved. When Filipinos kill a deer they drink the hot blood right from the arteries—a literal blood thirst. Officers have reported to me that they have seen educated wealthy mestizos simply groveling to drink this hot blood. If a horse dies by the wayside, and we do not bury it at once, it is pounced upon, cut up and carried away. To my certain knowledge, a party of men sent out to bury a recently dead horse found only a part of a leg and the tail left. Diseased horses shot and buried have even been dug up and eaten. When we remember that these natives have all the vegetable food they need, rice and fruits, this nitrogen thirst is well understood. Every day in the Philippines we see this intense search for nitrogen—snails, all kinds of crabs and shrimps, grasshoppers—indeed, any animal which can serve for food, is caught and sold as a valuable possession. Tropical vegetable foods are deficient in nitrogen, rice being nearly pure starch, and bananas, starch and sugar. Wheat and other cereals of temperate climates, on the other hand, contain a large store of nitrogen. So that in the tropics, where cereals do not flourish, it is not possible to feed the people properly without animal foods. Rice alone is a good fuel and furnishes energy for the tremendous labor of the coolies—but they are nitrogen starved all the same.

In the *New York Medical Record* (December 22, 1900) there was an interesting article on the "Poverty of Tropical Countries as a Cause of the Feebleness of the Natives," by *Dr. F. Semeleder*, of Cordoba, Vera Cruz, Mexico, who, from a third of a century of experience, knew tropical people well. He gave many details of this food poverty, the overcrowding and the harmful conditions of the climate, and showed that tropical civilizations must have been built up by vigorous Northern invaders who then died out. He concludes with this quotation from *Lord Macaulay's* essay on *Warren Hastings*,* in discussing the ideas of the wonderful riches of the Indies prevalent at that time: "Nobody seemed to be aware of what nevertheless was most undoubtedly the truth, that India was a poorer country than countries which in Europe are reckoned poor, than Ireland, for example, or than Portugal. It was confidently believed by lords of the treasury and members

* *Edinburgh Review*, October, 1841, p. 174.

for the city, that Bengal would not only defray its own charges, but would afford an increased dividend to the proprietors of India stock and large relief to the English finances. These expectations were disappointed."

If white men in the tropics are not well fed with nitrogen, they are so weakened in resisting powers as to become victims of almost every infection. The testimony upon that point is almost universal. The immunity of Englishmen to infections which wipe out the natives of India is now known to be due, at least in part, to the better nitrogen diet of the white men and the physiologic poverty of the brown men. It is the same in the lower animals, for *Doctor Breisacher* mentions* that decided reduction of the albumin in the diet of the carnivorous animals is followed in time by grave inanition. Indeed, these four diseases—beri-beri, leprosy, relapsing fever and typhus—are now believed to attack those in a condition of nitrogen starvation. This is more fully explained in the article on "The Soldier in the Tropics," *Philadelphia Medical Journal*, April 7, 1900.

Modern investigations have left no doubt that beri-beri is caused by the poisons of an organism which either lives on rice or invades the body. *Dr. Hamilton Wright*, of London, believes he has found it, and that it resembles the germ of diphtheria. All this does not alter the overwhelming proof that the germ or its poisons are harmless to those who have plenty of nitrogen in the food. It is useless to quote all the testimony, but we can refer to *Majors Pinard* and *Boye*, of the French Army,† and *E. A. O. Travers*,‡ who all show cures by meat diet and relapses by return to nitrogen starvation. An outbreak at the Filipino leper colony was checked by an increased nitrogen diet.§

*Colonel Adair*, Chief Surgeon in the Philippines, says:

"Beri-beri does not attack the army to any great extent, due largely to better conditions under which soldiers live as to shelter and more especially food. On its appearance among natives, an increase in diet, especially in nitrogenous principles, has been attended with good results."

* *Journal*, American Medical Association, December 9, 1905.
† *La Caduce*, November 5, 1904.
‡ *Journal of Tropical Medicine*, September 15, 1904.
§ *New York Medical Record*, November 3, 1906.

*Doctor Laurent* is said to have thus cured an epidemic in the Polo-Condere prison in Tonquin. Japan nearly wiped it out of their navy by feeding sailors with nitrogen, and by abandoning the diet to which some people at home want us to return in the tropics. There is much evidence that there is also a relationship between beri-beri and scurvy. An epidemic of the former in the Manila prison was checked by the liberal use of fresh vegetables under the direction of *Dr. L. H. Fales*, and it has even been suggested that scurvy itself is a result of nitrogen starvation as seen among the besieged Russians in Port Arthur.

*Dr. Bailey K. Ashford*, United States Army, has shown that the terrible tropical anæmia in Porto Rico is ankylostomiasis, and that poor food and starvation are the undoubted reasons for putting these cases into a condition where they are easily infected. This same infection of the underfed is found to be very common in Egypt and the Orient. *Dr. Dhuleep Azend*, a Hindu of the faculty of Calcutta University, one of the most profound of all the native scholars, "gives as one of the causes of the continuance of plague, the physical weakness of the people from insufficient food."* *Dr. Patrick Manson*† states that many inhabitants of the tropics are in a state of chronic starvation. Many other physicians have called attention to the necessity of liberal nitrogen diet in the tropics instead of the old absurd ideas as to starvation like a native. *Dr. P. R. Egan*, United States Army,‡ shows how healthy are the better class of Porto Ricans who eat plenty of meat, including pork, and how weak and anemic are those eating the diet our physiologists formerly approved—fruits and a trifle of starch and fish. The Agricultural Department investigated the dietaries of our Southern negro and found a marked deficiency of nitrogen, a fact which may account for the increasing degeneration among these people.

*Dr. Jas. Cantlie*§ says that it is the lack of fresh meat which is a prominent cause of that "running down" and neurasthenia

* *New York Medical Journal*, September 20, 1902.
† "Tropical Diseases," p. 586.
‡ *New York Medical Journal*, January 6, 1900.
§ *Journal of Tropical Medicine*, April 15, 1903.

he finds so common among whites in the tropics, and similar testimony is given by *Dr. Louis H. Fales.** The Dominican order in England was compelled to abandon vegetarianism and return to meats, as they were being damaged by nitrogen starvation. Other experiments innumerable have been tried in the way of reducing nitrogen, but have failed. Healthy "vegetarians" invariably belong to the sect which consumes milk, eggs, wheat, nuts, etc., containing sufficient nitrogen.

The lower animals show evidence of nitrogen starvation in the tropics. I once experimented with some ants in my house in the Philippines to determine whether they, too, were nitrogen hungry. These animals swarm all over the islands, and must be put to a severe struggle for existence. I first fed them on lumps of sugar, potatoes, etc., and they attacked these in their usual way, carrying off bits to the store house, but in the whole day did not make much impression on the masses of food. A day or two later I put a part of a fresh lizard's carcass near the sugar, and as soon as they found it, the excitement was wonderful. They left the sugar and attacked the animal food with indescribable fury, and within three hours were carrying away the last remnant of the bones. Even the chickens in the Philippines are nitrogen bankrupts. They have plenty of starch from rice to turn into fat, so that the yolk of the eggs is as fatty as that in other parts of the world, but the hen has not enough nitrogen from the few bugs and worms it eats to make good albumen—the white of the egg. Cooks complain that the "whites" of the eggs are often so watery that they cannot be beaten up into the proper stiffness for fancy dishes. Chinese eggs are somewhat better, though far inferior to the eggs from America, where the hens get plenty of nitrogen from wheat and corn.

### NITROGEN NEVER IN SUFFICIENT AMOUNTS

We can now take up the evidence that nitrogen starvation has been chronic since life first appeared on earth, and that it has had a potent influence in modifying organisms to adjust themselves for the search for this element. Those which can

* *American Medical*, April 1, 1905.

get much, such as snakes and the carnivora, eat seldom and have small digestive organs, but those which must depend upon the small amounts in grasses—the herbivora—have an enormous digestive apparatus to dispose of the large quantities of useless material they must swallow. In some species of fruit-eating monkeys, survival has been possible because they secure nitrogen in other ways—insects, birds' eggs, etc.

It is well known that monkeys in confinement require large quantities of nitrogenous food, and that when they are kept on a vegetable diet they perish.* I have been astounded at the quickness with which monkeys will seize and swallow insects. This has become instinct, transmissible to descendants, and even the human infant shows this monkey characteristic, and for the first few years of life it eats flies and other insects with perfect composure, and it acts in obedience to an instinct now useless but transmitted for a million years. What a pitiful illustration of the awful struggle for existence our ancestors experienced. Australians are still in this anthropoid state and resort to reptiles, maggots and shellfish; "even insects are not despised, but seized with avidity wherever they are found." (Haberlandt's Ethnology.)

Since human customs result from selection, there is ground for belief that cannibalism itself is a result of nitrogen starvation. It occurs only in countries and islands where there are few food animals and a deficiency of nitrogenous food. There was a survival of only those tribes who were able to get nitrogen in this way. The same change exists in certain fishes which survive as species because some eat their weaker relatives when food lessens each season. In other words, the difficulty is sometimes overcome by the smaller storing up nitrogen in times of plenty to be used by the larger and stronger individuals of the species in time of stress.†

* Wood Hutchinson has a very interesting article in *McClure's Magazine* for April, 1906, in which there is a wealth of data as to the necessity for nitrogen among lower animals.

† "Cannibalism and its origin has found an ingenious explanation from the pen of a Parisian doctor. This authority holds that in the primitive ages, when man was unprovided with weapons, he satisfied his carnivorous appetite with the weakest of his brethren, as being less capable of resistance than the beasts of the field. As civilization crept on members of a tribe ceased to eat their own people, but chose those of some different community

Nitrogen starvation has probably been the basis for the evolution of sex. The earliest organisms were minute particles of living substance like bacteria, and multiplied simply by budding off pieces or actually dividing into two. When food became scarce they were enfeebled, and the sole survivors were the cannibals who ate each other—that is, two organisms mutually absorbed each other, each receiving a complete body of an equal individual. They could do this as easily as absorbing any other digestible food, but what a tremendous advantage it was to get the food already in the right form, and such a mass of it, too. At that rate a man would absorb as much nourishment as he gets in several months of feeding. No wonder this "autophagy," as the biologists call it, "rejuvenated" the organism resulting from the coalescence of two. No wonder they were the only survivors, and that the process of mutual cannibalism is now universal.

The offspring has a double inheritance from two parents, and varies more and thus gives more varieties for natural selection to choose from. Hence, evolution was rapid. Later, when organisms banded together for self-protection and those survived which were best fitted by reason of specialization of individuals, certain cells still continued the procreation or reproduction; that is, they became the germ-cells and still continue their autophagy. The body built up around them was for the sole purpose of protecting them and nourishing them during their multiplications by division until they became so exhausted as to require rejuvenation by cannibalism again—or the sexual union

whom they might have been able to overpower. By and by, when weapons of defense and attack came into use, men found their own race more difficult to overcome, and accordingly turned for their daily nourishment to animals as less capable of defending themselves by artificial assistance. From this M. Joulin argues that to kill one's own kind from hunger, and for the victor to eat the vanquished, was quite natural and excusable."

The following press dispatch (1902), even if untrue, shows the process in ancient times: "Human flesh, chiefly that of babies and young children, is being sold in market places throughout the Chinese province of Shan-See at 180 cash per catty of one and a third pounds, according to news received here to-day. Famine prevails throughout Shan-See and not fewer than 300,000 people will have died of starvation before the crops are harvested. All rice brought in from adjoining provinces sells at ten times its normal value. In extremity people have commenced to eat human flesh to preserve life until relief reaches them. The empress dowager has commanded that bartering in human flesh be stopped, but she can enforce her decree only about Hsianfu, the present Capital."

of cells. Even yet certain species go on reproducing asexually many generations, plant lice for hundreds of generations, but eventually rejuvenation by autophagy of germ cells or sexual union is necessary in every case. Some species survived because the rejuvenated cell was nourished and protected by one organism, thus having the advantage in the struggle for existence. Hence, arose sexes, female and male. Yet there is not a particle of difference between the essential elements of the male and female germ cells. They are identical in any one species, that furnished by the female being surrounded by masses of food, and the autophagy is the same as ever. Our bodies are evolved simply because they have proved to be the best variations for caring for and raising the cannibals who are to eat each other at conception. We, ourselves, are mere incidents in the immortality of our germ plasm, and our sole end is to make its rejuvenescence periodically possible—every few thousand of generations of germ cells. As soon as we accomplish this end, we die as of no further use, the germ plasm being immortal, flowing on forever in the bodies of our posterity. What we now know as death is really a late invention of nature to insure perpetuity of life, for originally death was always an accident, and living things lucky enough to fall into the right environment, never died. Thus, autophagy is the only reasonable explanation for organic evolution, and has probably had its basis in the cannibalism resulting from nitrogen starvation.

There is some evidence that single-celled organisms may go on reproducing themselves by simple division forever, if the food and environment are exactly proper, but as such a rare state of affairs is never continued long, there always comes a time of deterioration and rejuvenation by conjugation with a similar cell. Of course, we do not know how long certain trees can live, certainly for some thousands of years its cells continue to divide and subdivide, but even in them a senile period is apt to come in time. Plants which are reproduced by cuttings and grafting, have their environment artificially made for them, and sexual reproduction at present seems unnecessary.

Nevertheless, among certain scientists there is a reaction against the theory of the immortality of living substance. They

claim that it invariably becomes senile and will die if not rejuvenated by conjugation, and that an entirely new individual results from the coalescence. All this is a mere fight over words —it is not necessary to use the word immortality—indeed, the changes in protoplasm, from hour to hour, or minute to minute, show that the individual is not really the same from one instant to another. Immortality might be replaced by some other expression just as well—such as continuity of life. The point we make is that its way of continuing existence by sexual union is generally a result of starvation, and we can blame the nitrogen as a rule.

Cannibalism was probably the real reason for the evolution of animal forms from vegetable. In the primitive oceans animals did not exist, all living things were vegetable organisms, receiving direct kinetic energy from the sun, by means of which they built up materials for their cell life. Some organisms, though able to do this, turned criminals and began to appropriate the foods stored by others—and by the laws of selection these types survived and, through the laws of involution of the useless, lost their ability to build up their own food as a plant does. A few species of animals still retain chlorophyll in the skin, and can act in both ways, but the great majority are not able to build up these foods and are wholly dependent upon the foods manufactured by plants. Animals, therefore, are degenerated plants. They must use the potential energy of organic foods, though there is no difference whatever between an animal and a vegetable cell. What a strange outcome, therefore, that the whole animal world, now so dependent upon foods built up by vegetable forms, is really a result of the first cannibalism among primitive plants starving for nitrogen.

### DEFECTIVE DEVELOPMENT IN NITROGEN STARVATION

A most potent cause of death in crowded communities is by degeneration in its modern sense—abnormal physique due to bad development of an unstable organism. It was once taught that degeneration was the special property of higher races in modern times, but history shows that it has always existed,

and my own observations among Malays and Chinese show that an enormous number of them are degenerate. The details do not concern us here, but we may remark that the anomalies called stigmata, which are far more common in the degenerate than among the normal, are very common in lower races. For instance, the large number of Albinos among the Zuni Indians —a fast-dying remnant of a once powerful tribe, migrated from a distant home, shows degeneration in its modern sense, that is, people living close to nature can degenerate, and modern civilized habits (away from nature, as it were) are not any more potent causes of degeneration than changes in natural environment. In the majority of cases of degeneration the cause is, no doubt, found in the inability to secure sufficient nourishment, and the chief defect is in the animal or nitrogenous foods. In the Philippines the conditions causing the dreadful infant mortality are mainly those of underfeeding. As long as they are at the breast they are hearty and well, but as soon as weaned the trouble begins, for milk cannot be obtained and the chief diet is rice. Anemia is universal, and they fall victims of any infection which comes along. They are gelatinous and wholly lacking in the strong fiber of the nitrogen-fed babies. No wonder so many become degenerates. It fully explains the abnormal physique of the Chinese coolie class so different from the normal of the well-fed upper classes. Indeed, there are enormous numbers of degenerates among the lower classes in every crowded tropical country.

There is much more than a suspicion that the fetal deformities which so often puzzle us to find the cause, and which are commonly ascribed to maternal shocks, are in reality due to defective vitality from improper nourishment. The ovum is not sufficiently strong to develop properly, and any tiny cause will then deflect it from its proper course or check its development.

The whole matter of the defective classes springing from the slums is being looked upon in the light of deficiency of nitrogen food. It is the same as in the lower animals, for experiments in this line can produce deformities, as *Ch. Fere* has shown in France. We can now come nearer home to find the same conditions. In the *British Medical Journal* (April 4, 1903), there is

a notable article proving that a great deal of the damage done in the overpressure of modern schools, and the consequent degeneration of urban population, is really due to nitrogen starvation of the children. School dietaries in France and England as a rule, show deficiency of nitrogenous food, the girls in particular being underfed. *Dr. Clement Dukes*, a great authority on such matters, says that schoolboys require meat twice daily, and that when this nitrogen is deficient petty misdemeanors increase in proportion to the deficiency. *Dr. Wm. Hall*, of Hillside, Headingley, near Leeds, in England, has found that underfeeding is appalling among poor Gentile school children, though Jewish children of even the poorest classes, are better fed. He started a crusade to compel the parents or the State to feed these little starvelings, but so great is the prejudice in the popular mind that there is no such thing as overpopulation and consequent underfeeding, that he was violently opposed by the two professions which should be anxious to help him—clergymen and teachers. The former claim that the soul alone needs help, and the latter that the mind is the thing to assist. *Doctor Hall* teaches that the brain will not grow unless fed, and the mind (or sum total of the functions of the brain) will be in better shape for the teacher's work if there is a good well-fed brain. We can refer to the dreadful starvation of school children, mentioned in a prior chapter, but merely to mention that nitrogen is the main defect and that the condition is found in every big city of the world in which it has been investigated. No wonder there is such a demand to feed these children who are growing up into defectives to bother future society. It is now shown in New York by the physical examination of graduates of the public schools who are applying for teachers' certificates, that they are woefully underfed and undeveloped—many, indeed, being physically unfit to teach. In all cases so far as known, it is a defect of nitrogen.

The starvation dietaries of Europe, which some physiologists want us to adopt, are the real causes of the small stature of many of these races. Anthropologists have long ago proved this, and shown also that as soon as these races are better fed the next generations are markedly bigger. It is the commonest thing in

America to see large, well-fed native-born citizens whose parents were little, undersized peasant immigrants who had been half starved from infancy, as their ancestors had been probably for many generations. Several of our famous big pugilists are illustrations of this law. From what has preceded, we now see that all this lack of growth is really a nitrogen starvation. The undersized peasant really did not have sufficient nitrogen in youth to build up his tissues, though he had plenty of carbon for fuel.

The Japanese also concluded that their diminutive stature could be remedied, as it was due to underfeeding. Systematic attempts have been made in the direction of a better dietary, with the remarkable result in one decade of a decided increase of the percentage of conscripts who were tall enough to enter the army.* Similarly it has been found that in some districts of Germany, particularly Southern Baden, the peasantry once so robust, have deteriorated from nitrogen starvation so greatly that large numbers are too defective for military service. The same phenomenon has been found in England, and has caused very great apprehension as to the future of the nation.

Although per capita meat consumption does not give the actual nitrogen food, yet it is a fair index because in the absence of meat the people must resort to foods containing less nitrogen. By some statistics published by the Agricultural Department, it is found that in 1840 meats constituted about one-half our dietary, whereas in 1906 they are only one-third. Not only are we exporting what we need ourselves, but the number of men has increased much more than the meat-producing live stock—a process which is still going on, and in a short time, if no new factors enter, there will not be enough meat to go round, and we will be as meatless as the rest of the world.

The per capita consumption of meat is calculated to be as follows:

| | | |
|---|---|---|
| Australia | 263.0 | lbs. |
| New Zealand | 212.0 | " |
| America | 185.8 | " |
| Cuba | 124.0 | " |
| United Kingdom | 121.3 | " |
| Germany | 98.7 | " |

* *New York Times*, May 6, 1906.

| | | |
|---|---|---|
| France | 79.0 | lbs. |
| Denmark | 76.0 | " |
| Belgium | 70.0 | " |
| Sweden | 62.0 | " |
| Italy | 46.5 | " |

From the countries at the foot of the list there is a constant emigration to those at the top to escape nitrogen starvation.

## DISEASES OF THE NITROGEN STARVED

In speaking of the relations of war, famine and pestilence we stated that the cause of pestilence following famine was partly the lessened resistance to infection which occurs in the underfed. It is now possible to go a step further, and assert that it is nitrogen starvation which is the main factor in reducing resistance in many of these epidemics. The "great white plague," for instance, which we have shown to be so very prevalent as soon as a certain density of population is reached, is now known to be in great part a result of nitrogen starvation, very rare in the well fed, but exceedingly common in the starved, whether the starvation be due to money privation or indigestion or disease, or due to an alcoholism which interfered with nitrogen nutrition. It rages among the underfed poor of all parts of the earth, Malays, Indians, Americans, etc., and one of the chief means of cure is forced feeding of nitrogen—the patients being literally stuffed full of animal food to the limit of their digestive powers. Like beri-beri, it attacks only those in a condition of physiological poverty.

*Woods Hutchinson** has shown from post mortem records made in zoölogical gardens, that, as a rule, with some exceptions, vegetable feeders are twelve-fold more susceptible to tuberculosis than the meat eaters. As the latter presumably ingest more nitrogen than vegetable feeders, we are justified in suspecting that the increased nitrogen nourishes the tissue protoplasm to a state of almost immunity from attack. Moreover, foxes and rats upon a carnivorous diet are nearly immune, but a vegetable diet makes them more than twice as susceptible,

* *Medical Record*, August 24, 1901.

though fat and apparently thriving. Likewise, calves rarely contract tuberculosis when fed exclusively on milk, even when fed from tuberculous cows. The carnivorous new world monkeys contract the disease very rarely, and though it is common among the vegetarian old world species, the latter are preserved in greater numbers by the addition of more nitrogen, even beef tea, which is now a part of the regular diet of anthropoids. It has recently been found the men with large hearts and conjested lungs rarely contract tuberculosis, but the feeble heart and large lungs of the tuberculous have been noted for many years. These physical conditions indicate an arrest of development. The typical phthisical chest is round or barrel shape, narrow but increased from front and back—the condition of childhood. The small heart is equally an arrest of development, and both can be due to defective nitrogen nutrition, though it is also due, in part at least, to defective vitality of the ovum itself. For instance, the disease shows a tendency to attack the offspring of the aged, who, by the way, are notoriously poor breeders. In addition, the statistics rather indicate that the exhaustion of much childbearing is also a factor—the later children being generally feebler than the first, as every family physician knows, though there are exceptions.*

Since nitrogen starvation and the great white plague are the two modern descendants of the famines and the great black plagues of past ages, the relationship of these two modern conditions to overpopulation and to each other must be enlarged upon.

Raw-meat diet in tuberculosis was investigated by *Hericourt* and *Richet*, in 1900, and adopted at the Woodburn Sanitarium as a routine diet. *Philip* and *Galbraith* have written on the sub-

* Of one hundred cases of tuberculosis:

| | | | | |
|---|---|---|---|---|
| 44 | were | the | 1st, 2nd, or 3rd | born |
| 12 | " | " | 4th | born |
| 8 | " | " | 5th | " |
| 9 | " | " | 6th | " |
| 10 | " | " | 7th | " |
| 4 | " | " | 8th | " |
| 3 | " | " | 9th | " |
| 4 | " | " | 10th | " |
| 4 | " | " | 11th | " |
| 2 | " | " | 12th | " |

ject, and shown that by its easy assimilation and power to repair wastes it was specially valuable in this as well as other wasting diseases.* *Dr. A. W. Martin*, Medical Officer of Health for Gorton, England, has been quoted by the Manchester *Guardian*† as having noticed the fact that the tuberculous have commonly neglected the fatty foods and consumed inordinate amounts of starch, thereby producing a depraved condition of nutrition in which tubercle bacilli flourish. They often have a disgust for animal foods. *Doctor Lannelongus*, of Paris, has shown that deficiency of nitrogen food markedly shortens the life of infected guinea pigs. *Dr. H. Edwin Lewis*‡ has asserted that tuberculosis is based upon a deficient nutrition of the cells, and that is the reason it so frequently follows starvation, pregnancy, diabetes, indigestion, bad air, worry, and other causes of defective metabolism, though we must remember that there may be an essential defect as the basis of both the malnutrition and susceptibility. Nevertheless, he found much benefit by giving pancreatic extract to the tuberculous. It decreased the free fat and sugar in the blood.

We can now understand why tuberculosis should so often attack the diabetic. In this condition the pancreas is often, if not generally, at fault. It is either ineffective through nervous disturbances or is organically diseased and unable to produce those ferments which oxidize our sugars to alcohol and lower chemical forms. Hence, the free sugar floats in the blood and is excreted by the kidneys as a foreign substance. But the pancreas also is the mainstay in digesting fats and proteids intimately mixed up in the foods. Consequently, the diabetic cannot get enough nitrogen food, and in addition they burn up their nitrogen tissues. They are typical cases of nitrogen starvation and woefully subject to tuberculosis. In addition to all this, it is a well-known fact that whooping cough leaves the child so depraved that tuberculosis is often the outcome months later. Indeed, it is a more fatal disease than scarlet fever. *Dr. Chas. E. Page*§ stated that twenty-five per cent.

* *British Medical Journal*, May 27, 1905.
† *American Medicine*, October 21, 1905.
‡ *American Medicine*, August 12, 1905.
§ *Medical Record*, December 23, 1905.

of those who recover from typhoid or pneumonia subsequently die of tuberculosis.

### THE DANGEROUS FAD OF LOW NITROGEN DIET

The case is clear, then—depressed vitality due to disease or to the nitrogen starvation of modern times is at the basis of the modern great white plague. In the exhaustions of tropical service soldiers simply melt away from tuberculosis if they once become infected, so that it is neecssary to send such patients away immediately to save their lives. It is evidence of the awful exhaustion induced by the climate—a matter to which we will later return. In view of all the facts in this chapter and throughout this book, what a dreadful mistake it is to advocate a reduction of our nitrogen food. I have no hesitation in saying that this pernicious doctrine in the tropics has enfeebled men and sent hundreds to their graves. It will be equally disastrous here. If 10,000,000 Americans are always underfed, and 10,000,000 doomed to die of tuberculosis, what a crime it is to talk of Americans being overfed! and what a dreadful thing it was for *Prof. R. H. Chittenden,* of Yale, to assert* that tuberculosis susceptibility may be due to an excess of nitrogen.

Nevertheless, a little coterie of chemists and physiologists here and abroad have taken up this delusion and are preaching the idea that we eat too much nitrogen. The principal scientist of this cult in America is *Professor Chittenden,* who has conducted numerous experiments extending over some years. He has shown so far only what has been known for ages—that we can exist on far less than what we habitually consume. Besieged garrisons, for instance, have lived for months on remarkably little. This new idea has its basis in the false hypothesis, that the waste products of the oxidation of proteid foods are difficult to excrete and cause some curious kind of a "load" on the liver and kidneys, though no one seems to know in what the "load" consists. It is also thought that these nitrogen wastes cause gout and rheumatism, whereas we now know that those two diseases are often the result of nitrogen starvation—appearing badly among the starving or underfed lower classes. The old

* *New York Medical Record,* October 28, 1905.

idea that uric acid causes these conditions is no longer believed by advanced investigators. Hence, *Chittenden* and others have said that we should cut down our nitrogen diet over fifty per cent.—even fifty grammes being sufficient, in place of the old estimates of 113 for an average man at average work. Nitrogen is like money—we never have enough unless we have a little more than needed.

In his book describing the experiment made upon soldiers, *Chittenden* publishes pictures of them at the end of the tests, and they are most dreadful exhibitions of athletic poverty—the unnatural and unwholesome condition of training with muscular hypertrophy and absence of fat—the condition often results in nervous exhaustion, alcoholism, and tuberculosis, the three dangers of all athletes. It is astounding that these men should be considered normal. In order to prove that they are sufferers from starvation, I have followed them up. One said "that he felt badly throughout the test and that his health and strength improved immediately on stopping it, and that he did not return to the low diet." The second lost twelve pounds in the test, and was hungry always, and he regained his normal as soon as he returned to normal diet. The third thought he received some benefit, but he returned to normal diet and normal weight. The fourth said that his nervous system was permanently damaged. He continued the diet three months, but stopped it because he became weak, nervous, and dizzy, and had frontal headaches. He lost weight, but upon return to normal diet he gained weight and lost his abnormal symptoms. The fifth did not find the diet beneficia in any way, but was unsatisfying, though he was not damaged as far as he knew. The sixth and seventh merely stated that they did not continue the diet and were in excellent health. The eighth was so impressed with the harmfulness of the diet that he said that he believed he would have died had he continued it. The ninth continued the diet (so he said) and was in good condition. Surely this is a record to deter other experimenters in the line of starving human beings. Later investigations have revealed the fact that these soldiers clandestinely ate extra meals whenever they pleased, and one has stated that they would have starved if they had not

occasionally taken a "good, square meal." Some even drank alcohol. It is also rumored that in the tests of eating and endurance the students play all sorts of tricks, and the results published have no scientific value whatever. In spite of extra foods not reported by *Chittenden*, the soldiers informed me that they were dreadfully weakened by the diet.

In some later experiments with Yale students by *Prof. Irving Fisher*, the Political Economist,* it was found that if they carried out the suggestions of *Horace Fletcher* and masticated their food well but not so over-well as to nauseate, they instinctively ate less and less, though they had a wide range of choice so as to take what was most pleasing to them. In six months their food fuel value was reduced twenty-five per cent., the proteid forty per cent., and the flesh foods about eighty per cent. But their average weights fell about six pounds, and though their endurance was increased, their strength of muscle was unaltered and the mental quickness slightly increased. If these experiments prove anything at all, they indicate that the men were not in as good condition at the end as at the beginning. Loss of weight is unnatural. Such experiments have been made with cavalry horses repeatedly. They were allowed to eat what they wanted, and all they wanted, and though they made pigs of themselves the first few days or weeks, they eventually settled down to the usual ration.†

No better judge of dietetics need be mentioned than *Dr. Alexander Haig*, of London, England, and he stigmatizes this new fad of restriction of nitrogen as "erroneous teaching,"‡ and he shows that it results in heart failure which may not come for months or years after the deficient diet was adopted. The

* *Science*, November 16, 1906.

† Wood Hutchinson (*McClure's* for April, 1906), in speaking of the necessity for liberal diet says: "It is true that Professor Chittenden has recently published the results of experiments upon a 'starvation squad' of soldiers which lead him to the conclusion that weight, health, and vigor can be maintained upon about half the amount of food laid down in standard diet-tables. But this highly improbable conclusion, upon so slender a basis of fact can carry but little weight until it has been confirmed by tests upon a far wider scale by other observers. From the reports of colleagues who saw the soldiers at the close of their fast, anemic, nervous, so eager to get back to regular rations that they would say *anything* about their feelings which would tend to bring the experiment to a close, it strikes me simply as a test of human endurance like Doctor Tanner's famous fast."

‡ *New York Medical Record*, May 26, 1906.

heart and brain, he says, are fed from the disintegration of other organs, and do not show symptoms until late. Hence, neurasthenia is also a late symptom, and is the reason why the underfed lower classes become unable to work—unemployable paupers who have literally and figuratively "lost heart." It has even been found in France that underfeeding of telephone girls produces such a high degree of neurasthenia that they cannot do the work, but that proper service resulted from the establishment of restaurants where they obtained more meat.

We have already mentioned the great "meat famine" of Europe, where the peasants now suffer from "nitrogen thirst," differing in no respects from the "blood thirst" of Filipinos. It remains to note that our Consul at Chemnitz officially reports that not only has horse flesh become a standard market meat, 75,000 or more carcasses being annually slaughtered in Germany, but that 5,500 dogs' carcasses are annually submitted to official inspection before sale to the working classes, and that the amount of this meat is constantly increasing. In Italy, particularly in Venice and Verona, cats are now being used for food, in spite of a law against the practice,* and in France snails have long been consumed. Paris yearly consumes thousands of horses,† and recently camel meat has been put on the market.

### THE HIGH PRICE OF NITROGEN

It is quite evident that nitrogen is and always has been the most difficult food to obtain. The monkeys search for it, in the midst of a profusion of fruits. Savage man was always on the hunt for fish and game, even if vegetables were ample. In barbarous civilizations the same rule holds. Hence, the large demand and small supply has always made nitrogen foods the

* *Boston Transcript.*

† A foreign news note says: "The Belgians have long been accustomed to horse meat as food, but of late importations of the animals, mainly from England, have shown so many that were emaciated, weak and obviously unfit for food that the Superior Council of Agriculture has recommended that such importations shall cease, or that broken down horses, unfit for work, shall be classified as cattle, in which case the high duty will keep them out. The measure has not yet been adopted, however, owing to the difficulty in finding a substitute for horse meat, which is, in many cases, the only kind which the poorer classes are able to afford."

most expensive—milk, meat, eggs—and the more concentrated the nitrogen the higher the price. That is, the very foods the poor need most are the ones furthest out of their reach. As previously explained, there is not enough money to prevent tuberculosis, and we can now assert that there is not enough nitrogen to cure it. The mortality must continue until the susceptible are wiped out and the race as immune as goats.

It is now known that the reason for the trend of the whole world toward the use of the whitest of white bread is the fact that it contains the most available nitrogen. To be sure the whole wheat contains more nitrogen per pound of flour, but that which is in the bran is indigestible. Therefore, the man who eats a pound of white bread—poorer in nitrogen—actually absorbs more nitrogen into his blood than he who eats a pound of brown or Graham bread. Though we pay more money for the white bread it is cheapest in the end.

As wheat grows mostly on the low lands, and as all the world wants it in lieu of the corn, rye, and other cereals having less nitrogen, we see the real reason for that struggle for the low lands of the world—a struggle for nitrogen.

In view of all these facts, it seems dreadful for any scientist to advocate a nitrogen starvation similar to that in Europe. In time our overpopulation will be relatively the same—millions of immigrants are crowding in so that we will soon be as starved as European peasants. Let us put the evil day off as long as possible, and not welcome it under the guise of an unwarranted deduction of misguided Yale professors. Luckily, *Sir James Chrichton-Browne*, the famous English physician, has sounded a warning in England, declaring the new fad dangerous. *Dr. Armand Gautier* has even shown* that we are meat eaters by nature, and that as meat consumption decreases alcoholism increases—a ghastly evidence of the exhaustion of nitrogen starvation. Others even go further still and advise us to eat as much meat as we can, as there is no sure evidence that it does harm except actual gluttony.† It is safer to eat too much than too little.

* *L'Alimentation et les Regimes.* † Dr. M. V. Huidonk of London.

# CHAPTER XII

## THE DIMINISHING BIRTH RATE

REDUCTION OF BIRTHS AN OLD NATURAL PHENOMENON—FRENCH BIRTH RATES—LARGE BIRTH RATES IN COLONIAL AMERICA—CHILD LABOR NECESSARY FOR LARGE FAMILIES—LARGE FAMILIES CAUSE POVERTY.

### REDUCTION OF BIRTHS AN OLD NATURAL PHENOMENON

Within recent years much attention has been given to the diminishing number of births per 1,000 of population, but only rarely has it been recognized as a phenomenon which has been going on since prehistory, and even before that in the prehuman stage. Discussion of the matter has raised apprehensions for the future, which are ridiculous in view of the fact that no harm can possibly result from a beneficial process found in all animals. There are so many elements in this phenomenon that it is really a most complicated matter.

The first point to notice is the decreasing number of births per marriage. The question naturally arises in everyone's mind that if the people were always so crowded why did not the birth rate lessen in accordance with the same biological law under which certain sea birds have been reduced to only one egg a year. By survival of the fittest, other things being equal, the birds having the fewest offspring a year were better able to rear them, the others being so overburdened that the young suffered in nourishment. The advantage was with the small families. This same law must exist in man's case. It is a fact that the smaller families of a modern civilized people have better care and possess the advantage in the struggle for family survival. In primitive civilization, the man who happened to have a small number of children was better able to raise them than he with fifteen or twenty, and such families have survived in greater

proportions and have tended to the evolution of the modern small family. This can be accounted for as a natural selection of an accidental variation in fecundity. Whatever its cause we certainly do know that the further a nation is advanced in civilization the smaller are the families. In each Filipino family there are fifteen to twenty births even yet, but among the Anglo-Saxons it is about five. Of the number born, the Filipino raises very few indeed, but in England and Wales the families average about four surviving children, and the higher classes are said to average three in both America and England. When there are large families among civilized peoples, fifteen to twenty children, the parents generally show strong evidences of abnormality. It is not necessarily atavistic, a reversion to savage type, but it is recognized as a stigma of degeneration as much as sterility. The rule for the normal civilized man is fewer births and more of them raised to maturity.*

The diminution of births must have been exceedingly slow at first, because the savage man does not need to care for the children very long. After the child is weaned it is virtually turned adrift, and by the time the next infant is born the elder receives but little attention. It is allowed to live at home until it is able

* These laws are seen in a general way in the following table of annual births, per 1,000, of population:

| | | |
|---|---|---|
| Russia | 1897 | 52 |
| Hungary | 1899 | 39 |
| Austria | 1899 | 37 |
| United States | 1900 | 35.1 |
| Germany | 1900 | 35 |
| Holland | 1895 | 35 |
| Spain | 1895 | 35 |
| Italy | 1899 | 34 |
| Norway | 1899 | 30 |
| Belgium | 1900 | 29 |
| Great Britain | 1900 | 29 |
| Switzerland | 1899 | 28 |
| Sweden | 1900 | 27 |
| Massachusetts | 1900 | 26 |
| France | 1898 | 22 |

The fecundity of the different races in the United States is said to be in the following order, and inclines to the same rule:

| | | |
|---|---|---|
| Bohemian | Scotch | German |
| Russian | Scandinavian | French |
| Hungarian | Canadian | Irish |
| Italian | English | |

to do something toward the support of the family. Indeed, the little tots are put to use so soon that they are an actual advantage. In Filipino and Japanese families the babies seem to be cared for exclusively by the boys and girls from eight to twelve years old. So that in primitive times there was such a slight advantage to a small family, if any, that marked reduction did not commence until quite a high civilization was reached.

To be able to look after itself soon, the savage child has been under natural selection in that it matures very early—boys become men at sixteen to eighteen, and girls are women at thirteen to fifteen; all able to take up the burdens of life. In civilized life the law has worked the other way, and those children who received the most care survived, and this has resulted in prolonging the period of immaturity, so that children must be cared for during many years. Hence, the rule that the higher the race, the more are its necessities of existence; that is, the more does each individual need for survival. If several children are in a civilized family all must be looked after. Suppose there are five, an infant, one each of two, four, six and eight years. This is an excessive burden for one woman. The woman of lower races looks after the infant a little, and compels the two eldest to care for the rest. Is it strange, then, that there should be a natural decrease in births from survival of those who naturally had small families? How much better off than the above for the purposes of prolonging our species, is the civilized woman who has three children, several years apart. They are all so much better cared for that they are better nourished, and become better men and women. That is, she raises more of them if she has few.

Hence, the birth rates have been decreasing for a long time, at first slowly but with ever-increasing rapidity. It became noticeable at the end of the nineteenth century, but the people have just learned of it and become unnecessarily worried. In 1878 the rate in the United Kingdom was thirty-five and nine tenths per 1,000 of population; thirty-two and five tenths in 1888; twenty-nine and eight tenths in 1898, and in 1908 about twenty-six. This is a tremendous change from the estimated rate of 200 among primitive men, when each woman had a child

every year, when there were no old people, and but few surviving children to each couple.*

## FRENCH BIRTH RATES

"*M. Neymarck* has lately examined various economic, financial and social causes that influence the birth rate. Some of his results are summarized in what follows: He believes, in the first place, that the birth rate will always diminish with the increase of 'civilization,' with 'progress' in a country. In Germany, the birth rate was forty-two per 1,000 in 1875; in 1895 it was thirty-six. In England the rate diminished from thirty-six to twenty-nine in the same period. In France it fell from twenty-six to twenty-five and two tenths. The rate of diminution is, therefore, least in France. Some of the economical causes influencing the birth rate are the increased cost of living, or, more accurately, the increased scale of comfort and the desire to insure increased comfort for oneself and one's family.

"The desire to establish one's children well in life is proved by curious statistics. In France there were 281,353 heritages in the direct line to divide 3,469,000,000 of francs; of these 170,819 heritages, amounting to 2,131,000,000, were allotted to one or two children; 75,961 amounting to 926,000,000, were divided between three or four children, and 34,573 amounting to 412,000,000, were divided between five or more children. The reduction of the rate of interest runs parallel to the decrease in birth rate. In France the birth rate was: in 1872, twenty-seven and eight tenths per 1,000; in 1880, twenty-five and six tenths; in 1890, twenty-two and nine tenths; in 1900, twenty-two and four tenths. The three per cents. produced, in 1871, about five and one-half per cent. on the investment; in 1880, about three and one-half per cent.; in 1890, about three and one-quarter per cent.; in 1900, less than three per cent.

* Doctors Newsholme and Stevenson (*The Journal of Hygiene*) find that the great decline began in 1876 and is practically the same in every country studied:

| | | | |
|---|---|---|---|
| United Kingdom | 34.8 to 28.0 | Sweden | 30.8 to 26.8 |
| England and Wales | 36.3 " 28.5 | Switzerland | 33.0 " 29.1 |
| Germany | 40.9 " 35.7 | Austria | 40.0 " 36.9 |
| Prussia | 40.7 " 36.2 | France | 26.2 " 22.0 |

"The increase of taxes and the indirect effect of the obligations of military service must also be considered, and also the entrance of women into competition with men as wage-earners. In France there are now 3,353,831 women who are thinking less of maternity, as they are more or less interested in their professions or trades. There are 3,861,599 single women; 1,808,838 families without children; 3,000,000 divorced or widowed persons without children—nearly 6,000,000 persons in all these categories."—New York *Sun*.

This extract is given in full as it shows that the real reason for the reduction of the birth rate—a natural necessity—is not touched upon in any of the usual discussions of the matter. Indeed, the conditions in France are often spoken of as vicious results of Malthusianism. In 1870, there were nearly 1,000,000 babies born, but there has been a steady decrease until 1906, when it was about 800,000. Nevertheless, the deaths are only 750,000, and there is a surplus which increases the population in addition to the constant immigration which has been going on since time immemorial.

The decadence of the French population is relative, not actual, for they have increased as fast as they could. They are supersaturated like England and Germany, but it is only to a less extent because they have less to sell and they cannot afford to import as much food as countries to the north of them. France is a phenomenally rich country and therefore its saturation point was higher than the rest of Europe before the other nations began to feed from America. That is the reason why, in 1800, France contained twenty-eight per cent. of the population of the great powers, and though she is steadily increasing in population all the time, she is steadily falling behind those who can buy food. Yet she will grow, for one-ninth of her area is uncultivated, yet capable of raising food.*

*POPULATION IN MILLIONS

| | France | Germany | England | | France | Germany | England |
|---|---|---|---|---|---|---|---|
| 1789.... | 25 | 13½ | 11½ | 1881... | 37½ | 45 | 35 |
| 1792.... | 26 | 14 | 12 | 1896... | 38½ | 52 | 38½ |
| 1826.... | 32 | 28 | 23 | 1901... | 38¾ | 56 | 41½ |
| 1850.... | 35 | 35 | 28 | 1906... | 39 | 60 | ..... |
| 1872.... | 36 | 41 | 32 | ..... | ..... | ..... | ..... |

Writers, particularly the French, always put the cart before the horse, and state that Germany and England are more prosperous than France because they are so prolific. They are prolific because they can buy food. The smallest increases in France are in the Southern departments, where the people have less average intelligence. The North is increasing at a fairly good rate through food importations, and in 1908 it was said that the birth rate was increasing with the prosperity of that year when she saved a billion dollars, one-third of which was drawn from abroad.

It is ridiculous for those statesmen like *M. Piot* to preach large families, which cannot be fed. He cannot upset natural law. Let him devise ways of importing food, and the population will instantly respond. All those who advocate large families for France, and such writers are legion, should remember that the Frenchman is much better off than the Englishman, because there is less poverty and more wealth per capita in France. Indeed, the stories of awful distress come from England, not France.

## LARGE BIRTH RATES IN COLONIAL AMERICA

The diminishing birth rate of French Canadians is another instance of this law, and it has received attention because their birth rate until recently has always been enormous—even larger than that of the colonists of New England. The old farmer simply divided his lands among the children, but the farms have long been too small to permit further division, so that the surplus people have been flocking to the United States, and now practically control our northern frontier. Yet it has been found that it is no longer possible to raise these families and the babies cease to appear. Though the French Canadian birth rate (49.08) is still more than double that of the English Canadians (23.41), the big families are becoming rare. They have obeyed the Mosaic command to "be fruitful and multiply, and replenish the earth," but since they have finished their part of the task they have ceased to produce more.

In the United States, the figures are about the same as for the

rest of the civilized world. The last census shows that the number of children under ten years of age has steadily declined from thirty-three and five-tenths per cent., in 1810, to twenty-three and seven-tenths in 1900. Part of this is due, no doubt, to the gradual prolonging of life which increases the number of people over forty. Hence, the number of children was probably fifty to sixty per cent. of the population, and the diminution is a sign of increasing civilization. Yet the figures also show a steady decline of number of children per family, and in addition it is calculated that while in 1850 the average family consisted of five and one-half children, in 1880 it was reduced to five, and is now four and seven-tenths.

### CHILD LABOR NECESSARY IN LARGE FAMILIES

Child labor and large birth rates are two parallel phenomena, and the relations of the two must be understood if we are to appreciate the benefits of the modern reduction of birth rates.

A clergyman, the *Rev. Father J. McLeary*, of Minneapolis, has been quoted as asserting that "the assumption that one or two children will be reared to be better men and women, than ten to a dozen, in a Christian family, is wholly false, and cannot be supported by the test of experience." Nevertheless, if the father is a common laborer, able to earn but a dollar and a half a day, and we count out Sundays and holidays, he has but nine cents a day for each of the fourteen, for food, clothing and shelter. Such lust leads to starvation, pauperism or child labor. Only recently the New York Charity Organization Society appealed for $250 to support the wife and six children of a machine operator, who never earned more than six dollars a week, and send the eldest children to school. That is, no poor man unassisted has ever been able to support many offspring and child labor has been a necessity for human survival.

On the farms of a century ago child labor was absolutely necessary, and if the farmer had no children of his own, he adopted some for the work he could squeeze out of their little bodies. Many of the rich men of to-day started life as farmer's boys. In lower cultures we see the same rule of the necessity

of child labor for family survival. Indeed, the investigations of *Heron* led him to the belief that modern children appear because their labor is necessary to help support the family.

Until a century ago life was mostly rural, and the labor of children was perfectly wholesome, but with the dawn of the industrial era populations became concentrated, and there was nothing for the children to do but work in some factory—hence, began that great but necessary evil which has been denounced because so destructive of life. The movement for better sanitation in factories and the improvement in the conditions of the child laborers has now borne such good fruit that in some sections the factory children are infinitely better off than those in the cities where the law forbids them working to help support the family, but sends them starving to school.

Now, the point of the matter is found in the fact that a century ago, with its large birth rate, nearly all children had to work, but with the progressive reduction of the birth rate the parents have been able to support an increasing percentage. The last census showed that only 1,700,000 children between ten and fifteen were employed at manual labor, and, moreover, 1,000,000 of these were at wholesome agricultural work; over 250,000 employed as servants, messengers, etc., leaving only 500,000 in factories and mines. Moreover, the average American workman is able to keep more than three children at home, while the European workman with his larger birth rate and less earning power supports less than three—the rest being thrust out to make their own living. Child labor is not proof of overpopulation, for the farmer's boys of colonial times had plenty to eat and wear, but they had to work for it just as the factory child does.

The conditions of child labor in the first cotton factories of England have been described by many pens. A few extracts are given in *John Spargo's* "Socialism." Children were in great demand because they were cheap and could do the work formerly turned out by a dozen men. They were employed as early as six years of age, men even took up the business of collecting and selling them as slaves, though nominally as apprentices. Parish authorities thus got rid of their imbeciles, one being

smuggled in with each twenty sane paupers, but no one has ever dared to say what became of the poor idiots. The children worked until exhausted—often sixteen hours a day—lived in stench and heat, were forced to unnatural activity by blows, and actual instruments of torture, many being chained to prevent escape. They slept in relays in filthy beds and fed on food unfit for pigs. The deaths were so numerous that burials were made at night in secret to prevent a riot, and many a poor tot committed suicide for relief. The stunted survivors were merely food for the criminal class. *Gibbon* says:* "The spectacle of England buying the freedom of black slaves by riches drawn from the labor of her white ones [and mere babies at that] affords an interesting study for the cynical philosopher."

Any one who can read this and compare it with present conditions, and then say that the world is not growing better by reason of lessened birth rates, must be hard to convince. Nevertheless, suffering and starvation are still with us, only in different forms, as elsewhere stated, for no poor man can support many children in idleness.

## LARGE FAMILIES CAUSE POVERTY

Charity organizations are coming to the belief that large families really keep people poor because the poorer the family the larger the birth rate, as seen in the following table presented by *Dr. J. Bertillon,* at the International Statistical Institute of St. Petersburg

BIRTHS PER 1,000 WOMEN

| Quarters | Paris | Berlin | Vienna | London |
|---|---|---|---|---|
| Very poor | 108 | 157 | 200 | 147 |
| Poor | 95 | 129 | 164 | 140 |
| Comfortable | 72 | 114 | 155 | 107 |
| Very comfortable | 65 | 96 | 153 | 107 |
| Rich | 53 | 63 | 107 | 87 |
| Very rich | 34 | 47 | 71 | 63 |

*The Industrial History of England.

*Heron* has also shown that in England the rule is almost universal that the higher the social status the fewer the children.*

The law, then, which prohibits child labor and compels school attendance is merely increasing starvation, and making it necessary to feed the school children—a plan now being adopted all over the civilized world as a temporary expedient until the time when the birth rate will be so reduced that the poor parent will have so few children that he can feed them himself. There is also an outcry against the school system which teaches so much useless knowledge. The new demands are in the direction of turning all schools into industrial establishments where each child will be taught as soon as possible how to support itself, but that, too, is impractical, for the parent cannot keep the child in any school. It must earn its own living at the earliest possible moment, and, as a matter of fact, in New York State, one-third the children leave school before they are thirteen, and scarcely half remain after fourteen. It is perfectly natural that by the time real education begins, at ten or eleven, the children leave, for that is the time ability to work begins. Compulsory education controls the children too young for effective brain training, and the schools are mere nurseries to relieve the mothers of a burden. No wonder the results are bad. In parts of Europe the problem is solved by the half-time method, whereby factory employees work half the day and go to school the other half, and they make better progress than the whole timers who are really kept in school more hours per day than is good for them.

An investigation of the declining English birth rate was published by *Sidney Webb* in the London *Times*,† and confirms much of the foregoing chapters. Briefly, his conclusions are as follows: The decline is not due to an alteration in the ages of the population (more old people) or in the number or proportion of married women or their ages. It is not confined to towns, nor is it greater in the towns. It is more marked among classes to whom children are inconvenient, being specially noticeable in well-to-do families. It is much greater in the classes noted

* Dular & Co., London, 1906.
† *Popular Science Monthly*, December, 1906.

for thrift and foresight. It is always volitional, and does not necessarily indicate lessened ability to reproduce. It is a pity that this excellent paper, so full of valuable statistics, should look upon the matter in the light of race suicide, and not the operation of beneficent natural law which cannot be changed by all the preaching in the world. There is an interesting statement in this paper which shows that overcrowding has been long noticed and believed to be remediable. One writer is quoted as voicing the opinions of economists from *Malthus* to *Fawcett:* "If only the devastating torrent of children could be arrested for a few years, it would bring untold relief."*

There is, indeed, an increasing number of publicists who are recognizing the advantages of a reduced birth rate. Not only in America but in every European country, there is a constantly increasing number of articles published, showing that the reduced rates are vastly benefiting the nations and mankind. Space will not permit even reference to these numerous expressions of opinions. Instead of race suicide, it is race preservation.

There is even an outcry from the charity organizations that poor mothers in New York are wholly unable to raise children. There is a demand for more maternity hospitals to care for them, and now there is a new demand for sanitoria to which these women can be sent after discharge from the maternity hospital —that is, the State is called on to support mothers whose husbands are too stupid to do it. If there is any class whose birth rate should diminish, it is the tenth who are submerged through their own unfitness to live in civilization. And yet this is the very class which charity workers are doing their utmost to preserve by increasing the birth rate; people unable to raise any children properly, and they are only cursing the country by becoming pregnant and continuing their kind.

The *New York Times*, of December 7, 1907, described the awful conditions of poverty and hunger in London and other cities. The worst story came from Sunderland, where hundreds of children went to school in winter without shoes or food, some of them were so weak that they had to be sent to hospitals to be gradually nourished until they could eat without danger. "Men,

* "The Service of Man," J. Cotter Morison.

there, are going days without food, and babies are born in rooms stripped of the last vestige of furniture, sold for a mere pittance, and long since expended for bread."

It is futile to say that these men, unable to obtain food for themselves, should not bring babies into the world to starve. Of course, they should not, but they haven't sense enough to prevent it. Consequently, there is a growing impression that we should actually teach such men how not to produce children —a matter to be subsequently explained.

# CHAPTER XIII

## THE CAUSES OF THE REDUCED BIRTH RATE

MARRIAGE CUSTOMS—SEXUAL SELECTION—ELIMINATION BY PROSTITUTION—DELAY OF MARRIAGE—INCREASING CELIBACY—PROPER AGE FOR MARRIAGE—ABORTION—PREVENTION OF CONCEPTION—BIRTH RATE AMONG THE OVERCROWDED.

### MARRIAGE CUSTOMS

The processes by which the average modern families are becoming smaller are exceedingly numerous, but are always natural and normal. Women have generally been blamed—poor woman is always blamed whether she is right or wrong. This is exaggerated into a universal rebellion against maternity—an alleged fact which does not exist—"a rebellion which is the consequence of their passion for independence and their constantly increasing desire to become equal, if not superior, to men in the intellectual occupations and in physical exercises. In saying this we refer particularly to American women. For the ladies of the law, and the medical, and journalistic ladies, maternity is a nuisance, just as it is for those whose greatest delights are bicycle riding, tennis, golf and hockey."

Nevertheless, women have probably been more concerned in the matter than men, and it is interesting to note the ancient means taken to limit the number of children within reasonable bounds. No doubt women discovered many ages ago that menstruation did not return as long as lactation lasted. Hence, they thought that by postponing weaning the next pregnancy was delayed—and this has become the universal custom among all the lower races in every part of the world. Civilized women cannot do it because of the drain on health, but semi-savage and barbarous women keep it up two, three or even four years, for this express purpose. Even Chinese women adopt the plan.

It no doubt has been a powerful factor in lessening the number of births.

We are now in a position to understand the curious marriage customs which have been described among the lower races and our own ancestors. Through all we can see this same necessity for fewer children per marriage, but at the very start we must warn against the idea that these customs were deliberately invented—they grew up. Men and women instinctively drifted into the habits, and the fittest survived, as a matter of course. No one had the slightest realization of the changes they slowly made. Indeed, the change from one form of matrimony to another may be a matter of many centuries—even millenniums. No one, even at this day, seems to realize the present drift to which we will subsequently refer.

Polyandry, for instance, existed in every race at some period of its evolution. It was due to the fact that it required more than one man to protect the household. It was generally restricted to one family, all the brothers having one wife in common, as *Cæsar* found among the German tribes. The custom existed even into biblical times in higher civilizations, and it is the only way certain Thibetan tribes can survive at the present time. It gradually changed into the Hebraic Levirate, where a childless widow became the wife of the oldest surviving brother of her late husband, but in this case the purpose was the exact opposite. It was to secure heirs to the widow, her subsequent children having the same legal rights as though their father was the deceased. In polyandry the main purpose was to restrict childbirth, and in such tribes nearly all the female children are ruthlessly destroyed to keep down population to the needed saturation point.

Polygamy, concubinage and prostitution are three venerable institutions, and each one of them existed at some period in the past or present history of every race. One drifted into the other as civilization advanced. Polyandry was the necessity of a very strenuous existence, and it invariably changed to monogamy and polygamy as soon as some men became more powerful than others, and were able to protect and feed one or more families. There were many other conditions regulating the matter, but

we need look to the main one—limitation of offspring. We can well assume that during the time that savage man was first becoming civilized, there must have come a time when the killing of any of his offspring or blood-relatives was too repugnant to be permitted. Probably from this time arose his desire to limit the size of the families. Before this he gave no thought to the subject whatever, and the old biblical injunction to be fruitful was undoubtedly a crystalization of popular thought from prehistory when large families were necessary. The desire to lessen the burden of the wife, gave rise to the concubinate and prostitution, which have had such a tremendous share in the evolution of civilization and without which it could not have come to its present state, for we can safely assume that sexual passion did not diminish with monogamy. At first the women who were not wives were as respectable as those who were, as continues at the present time in Japan. In savage life, the wife is generally a slave or property, and the sense of proprietorship compelled morality in her and weeded out the immoral, as the husband had the right to destroy or sell his wife as any other property. This has resulted in that survival of the fittest, the most modest and the most moral women.

We rarely appreciate the fact that the selling of girls is still normal among savages. Men formerly bought their wives, if they did not capture them, so that marriage by capture or purchase is found in every race at some period. Many of our Indians still think that the only legal way to get a wife is to buy her. The woman feels disgraced if the lover is unable to pay for her. Races which have had civilization thrust upon them still continue the custom. In 1905, the Czar was compelled to take strong steps to end the peasant custom of selling daughters, and even wives, for export to South America for prostitution. There was no concealment about the matter at all—the agent paid $50 in Russia and received $500 in Rio de Janeiro. Every now and then we unearth similar transactions among these races in America.

## SEXUAL SELECTION

At a much later time, the necessity arose in property inheritance for a man to know who his children were. Before this, and partly as a result of polyandry, inheritance of names and property was always through the females, and it did not matter who the father was.* Indeed, a child's paternity was never known. In the gradual evolution of monogamic marriage, wifehood became restricted to the very best of the women and through the elimination of the least worthy, and transmission by inheritance of the characters of the most worthy, there has been evolved that high standard of morality which is the crowning glory of modern civilized women. Now, and for thousands of years, the best have been chosen wives, and the others rejected, for at the present time almost every fallen woman is a short-lived degenerate. In the lower races, without a single exception, women have not evolved this moral tone of the women of Northern Europe. All Latin races are amazed at the liberty and freedom of Anglo-Saxon women, and think it is a result of the civilization; so it is, but not in the way they think—by elevation of the women. It is by allowing those unfit for this freedom to destroy themselves. The Latin races preserve all types by special safeguards.

It is a sad thought that through natural selection civilized women have mounted to their high moral sexual level, so much higher than man's, only through the ruthless destruction and casting out of her weaker, or more passionate sisters. It is the same as our mental evolution, accomplished by killing the unfit, stupid men. Indeed, as so many female degenerates are forced into prostitution and kept from child bearing, it is one of the most powerful natural means of keeping the race normal. Efforts to stop it have been given up all over the world; we can not regulate it; we will not even notice it; and yet it is the safety valve of civilization, to last as long as civilization—one of the safeguards of the home, and a necessary means of keeping

* See "Evolution of Marriage," Contemporary Science Series.

the families small. *Woods Hutchinson* has stated that our prostitutes are almost wholly supported by married men over forty years old.

Some years ago, 4,470 prostitutes were examined in Paris as to their literacy, with the following result: 2,392 could neither read nor write; 1,780 could barely read and write, and only 110 could do both well. In Manchester, England, not one per cent. could read or write.* Does this mean simply ignorance or are these miserable creatures of that low order of intelligence which cannot be educated? The general trend of thought is in the latter direction—they are the unfit—the female representatives of the male criminal class—and, brutal as it may sound, their elimination is a racial benefit, if it is done in this way. Prostitution not only reduces the birth rate by removing an enormous number of women from child bearing, but these women are all infected by venereal diseases which they spread, and which thus cause an enormous sterility.

Medical literature is crowded with articles describing the awful destruction of life and reduction of birth rates due to gonorrhea. The disagreeable subject must be mentioned at this point, as it shows how the necessity for a small birth rate has developed prostitution which, in its turn, is causing an abnormally low birth rate in some, and thus necessitating an unduly large rate in others to balance the losses. The disease is dreadfully prevalent, and produces sterility in ten and five-tenths per cent. of those infected, but if there is a complication of one-sided epididymitis, twenty-three and four-tenths per cent. are rendered sterile, and if both sides are affected, forty-two and seven-tenths per cent. Moreover, sterility in women is very commonly the result of this disease, which is so destructive of tissue as to cause a large percentage of all the operations on women—estimates varying from twenty-five to eighty-five, according to the locality of the clinic. Many young men think they are cured, but as the germs may remain quiescent for months or years, it frequently happens that the disease is transmitted to the bride, and that the first pregnancy is followed by serious complications causing sterility. This one-child sterility

* *Sanitarian*, March, 1904.

is found in seventeen per cent. of all cases of simple gonorrhea in men, and it has been estimated to be as high at forty per cent.

### ELIMINATION BY PROSTITUTION

Some years ago there were 300,000 known prostitutes in the United States, and as all of them are infected at some time, their sterility is probably due to its ravages, though much of it is really due to degenerate deformities and anomalies. As the police claim that there are more unknown than known prostitutes there must now be a total of nearly 1,000,000. These average only five years of life after they begin their calling, hence, there must be 200,000 who die every year; thirty to fifty per cent. of them die of gonorrheal complications, though *Woods Hutchinson* has stated that the average life was about nine years, and that the chief cause of death was alcohol. Think of it! every week in the United States at least 4,000 girls must enter that calling to perish. If we select 4,000 women for destruction every week, and select only those having one peculiarity, it is evident that we are changing the type very rapidly. It is the least moral who select themselves naturally for destruction, and the average morality must be rising at an enormous rate. It is no stretch of the imagination to predict that the normal white woman of a few centuries hence will be as much above the present as the present is above the average negro woman. As long as the institution lasts, the birth rate must be just that much higher to supply the waste, the 4,000 weekly and the untold number of deaths of women innocently infected. In the United States the number of women killed by gonorrhea in one week is, therefore, more than the number of our soldiers killed by the Spaniards in the whole war of 1898, and yet what a fuss we made over this driblet of men, and how we ignore the deaths of the women.

We have already mentioned the fact that in Southern Europe the least moral are not allowed to destroy themselves, as in the North, but are protected by conventional restraints. There can be, then, no evolution of morality by elimination of the least moral, such as we see in the North. Nature is at work like an artist. In the North she has been chiseling out a beautiful

statue of marble by chipping off and casting out the parts which destroy the beauty. A form is left of solid stuff, and when this type is subjected to the buffetings of adversity, she is uninjured, for her moral tone is built of rock as enduring as the everlasting hills. In the South, nature is like the artist modeling a beautiful statue of clay, who rejects nothing of the mixture of materials, but by restraints and artificial conditions forces them into a beautiful shape, which retains its form and beauty as long as the protection lasts. But let it be subjected to the buffetting of adversity and it is warped or even ruined. The moral tone is not of solid materials. Now, a curious result has already happened. The number of Anglo-Saxon women drifting into prostitution is becoming smaller each generation. The unmarried will work at almost anything so as to be moral. Hence, the ranks of these women must be recruited from the continent of Europe, and this is already a fact. Streams of such creatures pour into London every year. Efforts to reform them have failed, as they seemed to be devoid of moral sense. They are flooding certain streets, and constitute London's dark blot. Yet it is not an unmixed evil, for they are preserving a better type—the English girls. The same evolution is found in America, where the great majority of fallen women are foreign born or of foreign parentage.*

The facts here presented should convince us that it is wrong to describe prostitution as a social disease, though it is so considered by every one who has written upon the subject. Much as we dislike the institution and desire its abolition, we must

* Dr. Geo. M. Gould, in *American Medicine*, reports the conclusion of Doctor Sanger's investigations in New York City. In 1860 there were 6,000 public prostitutes. In 1897, there were 30,000, according to Doctor Sturgis, and the number has more recently been roughly estimated between 40,000 and 50,000. The majority of these are from fifteen to twenty-five years old. Three-eighths of them are born in the United States. Education is at a very low standard among them. One-fifth are married. One-half of them have given birth to children, and more than half the children so born are illegitimate. The ratio of mortality among the children of prostitutes is four times greater than the ordinary ratio among New York children. The average duration of a prostitute's life of abandonment is four years. Nearly half of these women in New York City admit that they are, or have been sufferers from syphillis. Six-sevenths of them drink intoxicating liquors to a greater or less extent. A capital of nearly $4,000,000 is invested in the business of prostitution, and the annual expenditure in this traffic is more than $7,000,000. In the whole country the expenditure must be $50,000,000.

wake up to the fact that it cannot be eliminated from civilization for many centuries, or millenniums, if ever. It is part of the social order grown up by changes in marriage customs and the necessity for a lessened birth rate. It partly replaces matrimony. It does not exist as a system in savage life because boys and girls marry so soon, but it exists there just the same, though to a very minor degree. It was a recognized part of the religions of ancient times in every part of the world, and is still practiced as a religious rite here and there. The only way it can disappear is through the gradual elimination by venereal diseases of those who practice it—both men and women. We have been trying to eliminate it by law for many centuries and will never succeed. Nature cannot be changed by an hysterical or emotional law. Nothing herein said as to the fact that this institution is a natural phenomenon can blind us to its dreadful evils—especially to young men. These are so well known that it is considered unnecessary to discuss them. In time they may cause the disappearance of the institution from civilization. No man in his senses can wish for its perpetuation, no matter what he thinks of its origin and former necessity. It is raising one sex to a high moral level and lowering the other proportionally—a very undesirable condition of affairs.

Curiously enough, the enormous death rate by venereal disease is rapidly causing a racial immunity through the survival of the most resistant. The process has already gone to such an extent that a large proportion of cases in healthy young men quickly recover without any special treatment, although there are a few extremists who deny that any case ever fully recovers.

## DELAY OF MARRIAGE

When *Malthus* first wrote about overpopulation he suggested as a remedy that we should delay the time of marriage. He was unaware of the fact that this delay takes place naturally for other reasons, and that as a rule the higher civilization the greater is the average age at marriage, irrespective of the number of marriages. It results from the greater preparation needed in higher civilizations before men are able to take care of their off-

spring, and it resembles in effect the postponing of puberty in certain large mammals. The elephant, for instance, is quite aged before it is able to produce and care for its young. In lower tropical civilizations, where the children are nursed until they are almost able to look after themselves, and when they require no clothing, their rearing is nothing more than an animal operation. Kids are raised by the goats just about as well as children of the savage. There is, then, no reason at all, why men should not marry soon after puberty, and this they actually do. Almost every Filipino boy of eighteen, even sixteen, is married, and women are generally grandmothers at thirty. In higher civilizations it takes the youth many years to learn a business or trade; in savage life the boy of fifteen knows as much as he ever will. In civilization it takes years to prepare a home, a little capital, clothing, etc.; in savage life these are not needed. To raise her fewer children the woman also in civilization needs more of education and preparation than in savage life. Hence, those women who matured very early were not fitted for matrimony, and their progeny were handicapped in the struggle for existence and did not survive in as many numbers as the offspring of the women of delayed maturity.

From all these facts it resulted that those civilized men, ages ago, who delayed marriage because their puberty was delayed, had a better chance of survival than those who, through very early puberty, married early and were unable to give their offspring the care bestowed upon the offspring of the better-prepared man. Then the ordinary law of natural selection secured the best type, and it was inevitable that puberty should be gradually delayed by natural law as civilization advanced in the evolution of the Teuton type of man. At present this evolution has made a difference of at least four years in the age of puberty in the North and South of Europe. As a rule these differences have invariably been explained as a result of climate, but this is not wholly correct. Any change of climate disturbs menstruation. All American women who go to the elevated plains of our Northwest, as well as those who go to the tropics, have much temporary trouble this way, but it is due to changes in vasomotor nerves and the loss of control over the circulation.

## INCREASING CELIBACY

The increasing number of celibates is another universal phenomenon of civilization which reduces the birth rate, and by leaving childbearing to a few it has the effect of increasing the number of children per family. The phenomenon is closely connected with the increased age at marriage, and needs discussion. One of the chief reasons for modern matrimony is the need of companionship of the opposite sex. There are many good authorities who state that in normal man there is no such thing as a need of sexual intercourse. If the desire is ignored, the apparatus, nervous and otherwise, gradually undergoes atrophy exactly as happens to another part of the body kept from functioning, but even this is strenuously denied now and then. Moreover, there is good evidence that the system suffers no deleterious effects whatever from abstinence. It is only in the people of unstable nervous system in whom the passion is either uncontrollable or absorbs so much of the individual's attentions that it seems to demand satisfaction. Certainly it is true that a large number of normal men can and do safely ignore their sexual nature for a long time.

There is no doubt that modern psychology has shown that the ordinary laws of selection have caused the survival of two types of mind, male and female, as the best fitted, to survive in the past. Each possesses some characters the other lacks, and each is necessary to the other's existence. Without that help, the man or woman alone is one-sided in views and actions and so inefficient to that extent that the life work does not produce the results of the married. The generalized type of mind, the same in male and female, disappeared from the earth with our prehuman ancestors. At present the further we go down in the scale of humanity the more nearly alike are the men and women mentally, and the higher the civilization, the greater is the difference. In some savage races there is so little difference that the women make most efficient warriors. The divergence is so great in the highest races that the two are now dependent upon each other —are really commensal organisms. All the discussion of the

women's rights associations as to the equality of sexes are highly unscientific—indeed, comparison of such different or rather complementary organisms is not possible. One completes the other and each serves a use in life entirely different from the other. When given the franchise, for instance, most women will not use it because they cannot. When men are given certain other opportunities, which can only be improved by women, they invariably neglect them because of inability to use them. Hence, if man is to do his highest and best, he must have his brain completed by the complementary organism evolved by natural selection for thousands of generations for this purpose.

Man, being the struggling, fighting bread winner, has been compelled to be selfish in the interests of his family as against other families, and emotion had little place. By natural selection this type has survived as the male brain. Woman's sphere has demanded tremendous sacrifices for the children, so that emotional minds—those ruled by love—have been the fittest, and selection has preserved them. This emotional type is the female. Each completes the other's defects. In his struggle, man had to combine with other men in business as he had in war, and to do this he invented the fictitious being called a corporation, which, in the eyes of the law, has all the rights of a man; can buy, hold and sell property and do any business a man can. It is a purely selfish creature, absolutely soulless—immortal—a horrible *Frankenstein*. It never does good except to benefit itself, reflexly. It treats its employees well, gives good pay, attends them when sick or injured, and gives them old age pensions, but not through any altruistic motive, but for the sole reason that by this means it gets the best servants and most faithful service. In its most modern form, the trust, it is a hideous monster, selfish, brutal, emotionless, fighting solely for its own interests. It is like the male type of brain and what the male type should have been expected to evolve.

On the other hand, notice the types of corporations evolved by women, emotional, unselfish, altruistic in the extreme, illogical, delightfully disdainful of facts, wholly unable to see good in that which opposes them, and they are eventually useless in that they destroy the very building they try to erect. Take the

Women's Christian Temperance Union, for instance, which has succeeded in introducing into schools those wonderful textbooks which, under the name of science, teach ridiculous falsehoods as to alcohol. The children read the books wherein all kinds of terrible things are stated of the men who drink a drop, and then go home and see the beloved father taking his evening toddy, comfortable, happy and long lived. No wonder they learn to have contempt for this propaganda and scornfully refer to the books as the "alcohol books." *American Medicine*, September, 1902, even states that the Women's Christian Temperance Union's prize for the best essay on the evils of tobacco was awarded to a confirmed "cigarette fiend." The Women's Christian Temperance Union neutralizes its own work, and will never accomplish what it aims to do. It is a female or emotional "trust." It should have male brains to assist and complete the idea emanating from female minds.

*Prof. E. L. Thorndyke** in 1,000 names from "Who's Who In America," finds that eminent men are married about in the same proportion as the whole population.† Likewise, the age at which they marry is essentially the same as for the general population. "Twenty-two and two-tenths per cent. married before the age of twenty-five; forty-three and three-tenths per cent. between twenty-five and thirty; eighteen and seven-tenths per cent. between thirty and thirty-five; and fifteen and eight-tenths per cent. between thirty-five and forty-five. The corresponding figures for the general male population of the United States are: twenty-two and seven-tenths, forty-one and three-tenths, twenty-three and one-tenth, and thirteen and one-tenth." He uses the figures to show the intense conservatism of nature, and the fact that the lines of eminent men do not

* *Popular Science Monthly*, August, 1902.

| † Eminent men | Per cent. married | Per cent. whole population married |
|---|---|---|
| 60–70 | 88 | 93 |
| 50–60 | 88 | 92 |
| 40–50 | 88 | 89 |
| 30–40 | 85 | 79 |

die out from celibacy as so often stated. But we can see in this the fact that if celibacy was an advantage there would be more eminent celibates. Pitifully little emanates from a celibate priesthood. The eminent men must have benefited by marriage; their thoughts must have been tempered, molded, shaped, if not even suggested, by the complementary brain.

### PROPER AGE FOR MARRIAGE

But the point we are coming to is this. We have within fifty years moved about half of our people into dense, urban masses, where moral companionship between sexes is possible without matrimony. A century ago, when ninety-seven per cent. of the people lived on farms, marriage was absolutely necessary, or man would have become insane from lack of companionship—now it is no longer necessary for this one object. There is a germ of truth in the idea that slighter companionship with many, as in modern society, is of more benefit than intimate association with one. Though this may be offset by the immense advantage which conjugal relations give to each partner to learn the psychology of the other, and thus understand and modify ideas to the best advantage to both, yet it seems true also that at the present time people can exist as celibates to a greater extent than before. The census of 1900 shows nearly 11,000,000 celibates over twenty years of age (6,726,779 men, and 4,195,446 women). Of course, the great majority of these will eventually marry, but the figures show that the very condition which *Malthus* wanted to cause by legal means, *i.e.*, postponement of marriage, has come about of its own accord. By the operation of natural laws now in force, there will be a selection of the most fit, and a real evolution, so that in time it will be as natural to marry at thirty as it is now at twenty-five, and as it once was at twenty and now is at fifteen in the tropics. Hand in hand with this change will be delay of puberty by natural selection of the most fit. Hence, our birth rate will diminish as we approach our saturation point, and will diminish naturally without the interference of artificial laws. *Thorndyke* says that for eminent men the age of marriage has advanced probably less than six

months in a half century. But this is tremendous. Evolution usually moves by slower changes. Suppose it is as great as six months a century or five years in a thousand years. This would make us marry at thirty where we now marry at twenty-five. What a tremendous reduction in the birth rate this alone will cause in our future civilization!

The proper age to marry and the means to compel marriage at that age are topics which have filled popular and semiscientific literature during some years, but it is all futile. The matter is beyond our control entirely. Natural law settles it. At present, early marriages are necessary for the good of the race because it places reproduction in the most vigorous period. The offspring of women twenty to thirty-five and of men twenty-five to forty are known to be markedly superior to those born of parents older and younger. Hence, if the delay of marriage progresses too rapidly those lines which delay too long will die, and the race will eventually consist of the descendants of those who delay a little. Late marriages thus carry the elements for their own disappearance in time simply because the offspring are weaker and of less vitality than the offspring of youthful couples.

The modern education of women to be independent is a result of the increased number of celibates needed in modern crowded communities, and like a closed chain it is the cause of more celibacy, for these educated women are more able to live alone than the uneducated. Statistics of women graduates of colleges, after making due allowance for the fact that the recent classes have not had time to marry, do show an increasing number of unmarried educated women.

The number of married women who are compelled to work at gainful employments is really very small—some one has asserted that it is as low as six per cent. Of course, there is a much larger number of workers among the divorced (55 per cent.), the widowed (32 per cent.), and the spinsters (31 per cent.), but the large number of men who are able to support their wives—ninety-four per cent.—shows what a tremendous change from savage conditions when married women had to do so much of the work. In agricultural communities at present many women

must still work in the fields, but civilization relieves women of the labor of providing and gives them time to raise families, and they do it better—infinitely better—probably rearing over half their babies, or three-fourths or more, in the highest circles. The savage woman reared only a tenth of hers. It is not true, then, that women are working more than ever—they are merely invading new lines because driven out of the old ones. Our grandmothers wove the cloth for our coats; the men do it mostly now, a few factory women and girls assisting. Women made the butter, cured the meat, preserved the vegetables, made the clothes—now men do it as a rule. Only 5,000,000 women in the United States are wage workers, and most of them are domestics. Instead of elbowing men to the wall in the labor market women are being relieved more and more of the necessity of work.

### ABORTION

It is now necessary to mention two other natural phenomena which, like all others, have been so universally misunderstood—abortion and prevention of conception. From their very nature they prevent popular discussion, and, therefore, but few people have any idea of their significance in the natural reduction of the birth rate. In the most ancient times, abortion was unknown, as the parents simply waited until the child was born and then killed it. Abortion came in as a later refinement to avoid the pain of labor, and the greater pain of killing the offspring. This latter pain is seen only in the higher races, for to my certain knowledge, lower races do not dread infanticide in the least. A Filipino peasant woman does not look upon her children as human beings until they are baptized, and would not hesitate to abandon them to death by exposure. Yet abortion is found among lower races, as I have personally discovered among American Indians. Though it was allowed in ancient Greece and Rome,* it has become illegal in higher civilizations for the reason that every human being, born or unborn, is declared to have a right to live. This modern and highest of

* W. L. Howard, *Journal American Medical Association*, May 15, 1897.

human rights is itself a result of natural selection in civilization. The idea was a natural growth because we survived as nations and were making life safer for all. Hence, the safer it is for others the safer it is for us, and no life must be sacrificed except to protect the community, as in war. The Roman Catholic Church is in the front of the modern crusade against all destruction of life by abortion. As soon as conception occurs, the tiny ovum, unless it jeopardizes other lives, has all the rights of life of an adult millionaire or a ruling prince.

The medical profession as a body has always considered the abortionist an enemy to the race, and ostracized him. A certain doctor of Magdeburg, who, in 1898, invented an intrauterine pessary to prevent conception, and thereby caused many deaths, was sent to prison like any other criminal. He was supposed to be responsible for the reduction of the birth rate of that city from 8,244 in 1891, to 7,224 in 1900, not from prevention of conception, but from abortions induced by the pessary.* Nevertheless, abortion is almost universal. It is stated by *Dr. Geo. J. Engelmann* that in every twenty-eight conceptions there are ten abortions in America. In Europe there are ten to every thirty-three conceptions. What a powerful means it is of keeping the birth rate in reasonable bounds.

The commission appointed to investigate the reduction of the birth rate in New South Wales, reported that it was due to deliberate attempts to prevent conception, or destroy the fetus if conception did occur, and also due to the diseases following such practices. There was no evidence of a physiologic sterility. The fall of the birth rate was gradual from 1867 to 1887, and then the drop increased, the fall being thirty per cent. in the last twenty years. It was thirty-eight per 1,000 in 1880, and twenty-seven and six-tenths in 1901. While there were five and four-tenths children per family in 1880, now there are three and six-tenths. It is said that of 94,708 first births in New South Wales in the decade 1891–1900, 48,271 were of post-nuptial conception, 22,094 were of ante-nuptial conception, and 24,343 were illegitimate. Surely this shows racial deterioration instead of

* Doctor Keferstein reports the details of the above case in *Centralblatt fur Gynakologie*, June 7, 1902.

normal reduction of birth rates elsewhere. As explained in another chapter, white men in that latitude must die out.

The newspapers too often are in favor of abortion because they gain revenue from the advertisements of the abortionists. Religious newspapers will have on one page editorials denouncing abortion, which only call attention to the bare-faced advertisements on the opposite side. As long as the newspapers and the clergy thus gain profit from abortionists the practice can never be stopped.

What is called the oath of *Hippocrates* was enacted of every Greek before he could even learn the art of medicine. It contained a solemn pledge not to give any woman an appliance to produce abortion. Considering, then, that the medical profession by 2,500 years of precept and example have been unsuccessfully fighting the evil—that is, the respectable element, not the black sheep—it is quite evident that we cannot upset a natural law. Abortion, no doubt, is getting less frequent, not because we have preached against it, but because it is less necessary.

### PREVENTION OF CONCEPTION

When we come to preventing conception, the Roman Church takes a modified attitude. It resolutely puts its face against any interference with nature, except by abstinence, which, when we sift it down to its last elements is, like concubinage and prostitution, only one of the numerous ways of preventing conception. This is not the place to discuss these means, as the moral tone of the commuuity will not permit public discussion, though the small size of families leaves no doubt that it is a custom resulting from the trend of events of thousands of years, and has been with us ever since primitive women prolonged lactation for the same purpose. What is universal must eventually become moral, for morals are only the expression of racial necessities. The Protestant churches do not concern themselves with the problem at all—to them it is a natural, not a spiritual matter. In Protestant countries, therefore, the reduction of the birth rate is larger than in the Catholic.

Every now and then the medical journals contain articles

inveighing against restricting the birth rate by these means, and written by physicians who do not know that for every extra life they would thus bring into the world, some one must die. Suppose for a minute that these *Don Quixotes* could have their way, and every American woman bring forth to her maximum until it kills her. We will have a birth rate of fifteen to twenty to a family, or each generation at least six times the last, allowing for accidents. Our population is now 80,000,000, and in thirty years it would be 450,000,000; in sixty years, 2,700,000,000. The writers do not say how these are to be fed. They can't be fed, so that in sixty years we would see 2,200,000,000 of beings die of starvation. This is not the proper way to place the problem, because the deaths would be gradual and would prevent the second generation being so large, but it serves the purpose of showing the law, that prevention of conception must take place if marriages are permitted, or in three centuries there will not be standing room in the United States for native-born American citizens.*

At a discussion of modern sterility at the 1901 meeting of the American Medical Association,† following a paper on "The Increasing Sterility of American Women," by *Dr. Geo. J. Engelmann*, of Boston, it was stated that whereas a century ago only two per cent. of American marriages were sterile, it is now over twenty per cent., and that from having an average of six children they now average less than two. There was an outburst of hysteria at this announcement, because not a soul there seemed to be aware of the fact that it was a natural and normal phenomenon which has been happening for millenniums.

Average birth rates always refer to the mass of the people. Now, this average is brought down by the notoriously small families of certain of the higher classes—lines which are con-

* "The fact cannot be disguised that the chief means by which the great lowering of the birth rate in most civilized countries has been brought about has been by the dissemination of instruction as to the means of artificially preventing conception. More attention needs, however, to be given to the production of abortion, which, it is to be feared, is more prevalent than is commonly imagined. The recent discovery of a large number of unburied babies' corpses in an undertaker's establishment in Birmingham illustrates, furthermore, that infanticide is with us as in biblical times."—*Charlotte Medical Journal.*

† Section on Obstetrics.

stantly being extinguished for this reason. Hence, the average number of children in the families of that middle class which is to survive and carry on the nation, though smaller than in the lowest improvident classes, may be greater than the averages show. In other words, the reduction in number of children in surviving humanity as a natural phenomenon is slower than the figures show, and the time of very small families is quite remote. No one knows what is the proper number of children to a family in our stage of culture. Nature settles the matter for us whether we give the matter any attention or not. If any people or class of people ever limit their offspring to a number just sufficient to overcome losses and keep population fixed—they are crowded to the wall by the increasing numbers of the other classes equally able to struggle for existence, who have a slight surplus. If the number of offspring is below the losses, that class, of course, dies out in time. The future population of any country will then be composed of the descendants of the classes having the largest number of healthy surviving children. It is not necessarily the class having the largest number of births, for such may die out through feebleness, as is the case in most of the mestizo families of the Philippines, where it is not unusual for families of eighteen children to have but two feeble survivors. Other things being equal, the class having the least number of births is quite likely to be the first to become extinct, as they are apt to have fewer healthy survivors than in the moderate families.

*Dr. Geo. J. Engelmann** proves that the reduction of the birth rate is common to all classes of Americans, but that the educated classes raise more of their children than the others and, therefore, have larger surviving families. It is not true, he states, that education induces fewer births. Finally, it is to be noted that civilized women are too frail to reproduce as the muscular savage. Excessive childbearing would be fatal—indeed, even savage women cannot reproduce as often as the ancestral anthropoids. Physical feebleness is an evolution, and if these frail modern civilized women can bear and raise three strong children, they are far better fitted to continue the race than those who bear ten and raise but two. Tiny little frail mammals survived

* *Popular Science Monthly*, 1903.

for this reason where the huge saurians perished in past ages. That is, a smaller and smaller birth rate is a necessity of the evolution of frail types of men fit for survival in modern times when a huge musculature is useless or an actual disadvantage, as requiring excessive nourishment.

## BIRTH RATE AMONG THE OVERCROWDED

In order to emphasize the benefits of a reduced birth rate, we must return to the question of the overcrowding of all large modern cities, in which it is impossible to build proper shelters for all the people. The best description is found in *Henry Jephson's* work, "The Sanitary Evolution of London," which is typical of all other cities. He states that in spite of an uninterrupted crusade for fifty years, one-fifth of the population in 1906, were still "living in circumstances where physical well-being is impossible and where even a moderate standard of public health is unattainable." Three-quarters of a million were without proper shelter, and 2,500,000 had to share a house with other families.*

In spite of this overcrowding, which was the same in 1891, the decade ending in 1901 showed an increase of 40,000 foreign-born Londoners, that is, there is always a flow into the city from the provinces and foreign countries; only two-thirds of the population is native to the city. Nevertheless, in that decade there were 490,974 more births than deaths, while the population increased 309,228. That is, there were 181,746 emigrants, and adding the 40,000 increase of foreign-born, there were 221,746

* The overcrowded were as follows:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 147,771 | people | lived | in | 40,762 | one-room | tenements |
| 296,657 | " | " | " | 50,304 | two | " | " |
| 187,619 | " | " | " | 23,979 | three | " | " |
| 94,047 | " | " | " | 9,738 | four | " | " |
| 726,094 | | | | | | | |

The tenements not overcrowded sheltered the following population:

| | | | | |
|---|---|---|---|---|
| 304,874 | in | one-room | tenements |
| 701,203 | " | two | " | " |
| 752,221 | " | three | " | " |
| 691,491 | " | four | " | " |
| 2,449,789 | | | | |

people elbowed out. Think of people bringing babies into such an overcrowded world of tenements, in which fifty per cent. died before they were five years of age! The reduction of the birth rate from thirty-one and eight-tenths in 1891, to twenty-nine in 1901, was a blessing. It meant 15,400 less babies per year, or 154,000 in a decade, or a saving of 77,000 deaths of infants who could not be raised. It meant the preservation of the health of 77,000 women, who would have otherwise been damaged by a useless pregnancy. It is social economy of the highest type to produce only what is needed.

The reduction of the birth rate is responsible in part for the great modern reduction of the death rate which, in former times and in lower races, was kept up by infant mortality.

There is an increasing number of physicians who are advising the dissemination of knowledge of how to prevent conception, and thereby to increase the happiness of couples now married but in constant dread, to reduce prostitution by inducing the young to marry who now refrain because unable to support children, to prevent invalidism of too frequent pregnancy and lactation, to prevent destruction of health by improper preventive methods, to prevent abortion, and to prevent the offspring of the defective classes.* Such information will merely be in line with what has been going on ever since the first women prolonged lactation for this purpose. It is a natural phenomenon in which the question of right and wrong does not enter at all. The first duty of the Association for Improving the Condition of the Poor, is to teach them it is wrong to bring babies into the world as burdens for charity organizations.

The relation of democracy to the birth rate seems rather far-fetched, but is really so intimate that one depends on the other. Society is evolved for the safety of the units composing it. It is man's method of surviving because it is the safest and best. It is made for him and by him. He is not made for it. It is foolish, then, to say that a big family is man's duty to society. Kings taught the peasant to produce soldiers as food for powder, but the peasants are now teaching kings to preserve the fewer children born. Society must adjust itself to new conditions,

* "Critic and Guide."

and the lessened birth rate is one of them. Society is not the master and man the slave, but it is the servant of man. It must serve man no matter how few children he has. It is no man's duty to be a breeder for the institution he evolves for his own protection. It used to be taught that he who had twelve sons had done well for his country—in time it will be recognized that he injures it by being too prolific. In any case, fatherhood is a right—not a duty.

The changes wrought in us by our dependence upon the social organism we have created for self-preservation, and the duties exacted of us by that organism as the price of our own personal survival, are discussed later, but it might be said here and at once that they have nothing in common with child-bearing. The organism exists for those already born and it changes to accommodate what the future presents to it.

# CHAPTER XIV

## RELATION OF BIRTH RATE TO SATURATION POINT AND TO DEATH RATE

BIRTH RATES VARY WITH PROSPERITY—LARGE RATES IN UNDER-SATURATION—BIRTH RATES LESSEN WITH DEATH RATES—DIMINISHING WAR LOSSES—LESSENING DEATH RATE FROM DISEASE—LENGTHENING OF AVERAGE LIFE—EVERY LIFE-SAVING DEVICE LESSENS THE BIRTH RATE.

### BIRTH RATES VARY WITH PROSPERITY

Having explained the rather self-evident fact that death or migration always wipes out the surplus which cannot be fed, it is now in order to take up the other end of the problem—the fluctuations of the birth rate from the natural tendency to keep the land full to overflowing. That is, the birth rate is a delicately regulated governor instantly responding to the need for overpopulation. It is very large where losses are tremendous or where the offspring can find room—it is low in the opposite conditions of civilization, and moreover it fluctuates to suit circumstances. It must keep every country overcrowded.

That the birth rate is intensely sensitive to changes in national prosperity has been proved by *G. Udny Yule* in a paper read before the Royal Statistical Society in London, in 1905. He studied the marriage and birth rates of the previous half century in England and Wales, and found that after periods of trade depression fewer babies are born, but as soon as the tide turned and prices improved, babies began to appear to share the surplus. There was no doubt that in bad times people could not afford babies. There was a remarkable drop after the financial troubles of 1873.

*Hunter*, in his work on Poverty, states that in every country of Europe it has been observed that emigration has never reduced the population, but on the other hand has increased the

birth rate. Every man who leaves for America makes room for another baby, and there were 20,000,000 born who would not have existed if the 20,000,000 emigrants had not made room.* The life-saving advocated by *Hunter's* book is, of course, necessary, but it will only cause a lessened birth rate, and will not lessen overpopulation any more than emigration from Europe has lessened their poverty problem. He shows that sanitation would save 25,000 lives yearly in New York City, but then there would be 25,000 fewer babies born, if we can judge from European experience. Our immigration has, so far, prevented the birth of 20,000,000 in America! In comparison to the 40,000,000 killed in the wars of the last two or three centuries, it is quite evident that emigration is merely an attempt of a few to survive and in the end does very little good to the home country beyond eliminating the least efficient. When, in 1835, plague destroyed the natives of Cairo and Alexandria at the rate of 2,000 a day, it merely made a small gap which was almost instantly filled. When *Frederick the Great* was taxed with the loss of life in his wars, he merely replied that one night in Berlin would restore the balance, for it is a well-known phenomenon that wars are followed by a greater birth rate. Even though they are due to overcrowding, the condition is instantly restored.

## LARGE RATES IN UNDERSATURATION

In lower civilizations the birth rate seems to be unaffected by the density of population—the women give birth to many children and the surplus are killed off, starved, or wiped out in other ways, as we see in China and India. On the other hand, in the highest civilizations, the birth rate is intensely sensitive to changes of density of population. This is illustrated in our own country where at first there was so much room for all, and such a sure existence for every one that there was no check on child-bearing, and very large families were the rule. Genealogical

* Prof. Richmond Mayo-Smith is quoted as saying that emigration depopulates Europe, and Hunter says: "Economic conditions abroad have not been bettered for the reason that an increased number of children have been born to fill the places left vacant by the emigrating millions. Neither has the poverty nor the congestion abroad been diminished by emigration."

studies of Colonial American families show that the birth rate was small prior to leaving Great Britain, and immediately jumped to the enormous numbers in the families of the seventeenth and eighteenth centuries. "The immigration which formed the basis of our colonial population was very slight. The men who fought the Revolution and created the United States, were almost exclusively native. The population of New England, as is well known, was produced out of an immigration of not over 20,000, all of whom arrived before the year 1640. From 1640 until about 1820, a period of nearly 200 years, the growth of New England was by the child-bearing of the original and native stock. There was no immigration worth mentioning, but, on the contrary, an overflow into neighboring colonies, New York and the West. *Franklin*, writing in 1751, when the population of all the colonies was about 1,000,000, said that the immigration which had produced this number was generally believed to have been less than 80,000."* *Mr. Fisher*, *Mr. Edward Jarvis* and *Gen. Francis Walker* all showed that if this same rate of increase had been kept up our population would now be far greater than it is. They all believed that the great checking of the native birth rate was due to foreign immigration, which began to be noticeable in 1820.

"The rate of increase by births among the colonists had been remarkably rapid, and had astonished the people of Europe (where the rate was not far from four per cent. per decade). *Franklin* was the first to call the attention of learned men to this phenomenon. In some parts of the country the people, without the aid of immigration, doubled themselves in twenty-five or twenty-seven years; and there were traditions of particular localities in which the doubling had taken place within less than twenty years. No record of a like increase over such an extended territory could be found in the history of the civilized world." But then, there never was a like instance of civilized people finding an unoccupied land with proper climate. "After the Revolution the rate of increase was greater than ever—doubling every twenty-three years." In the United States the rate of doubling is now about forty-two years; in

* Sydney G. Fisher, *Popular Science Monthly*, December, 1895.

Norway it is fifty-one years; Austria, sixty-two years; England, sixty-three years; Sweden, eighty-nine years; Germany, ninety-eight years; France, 334 years.

The fact that the birth rate is large in a newly settled country and gradually diminishes as that country grows older, is shown in the calculated birth rates of native families per 1,000 population according to States, in the 1900 census.

| | | | |
|---|---|---|---|
| Utah | 63.1 | Illinois | 22.8 |
| Idaho | 48.3 | Iowa | 29.8 |
| Wisconsin | 41.2 | Missouri | 26.3 |
| Minnesota | 40.0 | Nebraska | 22.2 |
| Texas | 38.7 | Kansas | 21.6 |
| North Dakota | 35.3 | Indiana | 16.3 |
| Louisiana | 35.8 | Michigan | 19.3 |
| West Virginia | 33.9 | Ohio | 12.9 |
| Arizona | 36.8 | Pennsylvania | 14.0 |
| Montana | 32.2 | New York | 8.9 |
| New England | 3.8 | Connecticut | 1.8 |

The large Utah rate is partly due to polygamy. Most of the adults are prosperous, a condition which could only occur as a result of undersaturation. Polygamy will, therefore, necessarily disappear as Utah fills up.

Statistics brought forth by the pastors of the German Lutheran Church in Jersey City, show much lower birth rate in the oldest congregations, which are English speaking, than in the newer ones speaking German, and, the older the stock the less the birth rate. In a general way the same reduction of birth rate according to age of a country is seen in the following table of birth rates per 1,000 of foreigners in the United States, 1890–1900 (United States census):

| | | | |
|---|---|---|---|
| North Dakota | 92.1 | Pennsylvania | 36.8 |
| Montana | 73.2 | New York | 36.6 |
| Minnesota | 53.4 | Wisconsin | 34.5 |
| Texas | 53.2 | Iowa | 31.0 |
| Arizona | 52.5 | Kansas | 30.0 |
| Idaho | 50.8 | West Virginia | 25.2 |
| Illinois | 43.9 | Ohio | 21.9 |
| Nebraska | 43.7 | Indiana | 19.4 |
| Utah | 41.7 | Missouri | 17.1 |
| Michigan | 40.1 | Louisiana | 11.2 |

So that the general contention seems proved that birth rates diminish as lands fill up and there is no relief by famine, war or migration. Australia is also an example of a birth rate lessening as saturation is approached. It has but a small manufacturing class to buy the foods it exports, and it cannot support many people. Hence, its birth rate had to decline, but its public men do not know the reason. The statistics collected by *Mr. Coghlan* show that the fall in the birth rate in Australia and New Zealand, taken together, is such that there are annually fewer births by nearly 20,000 than would have occurred if the rates prevailing as late as ten years ago had been maintained.* New South Wales furnishes a striking example. A curious fact is that the decline was found in every class, among people of every shade of opinion, except among women of Irish birth. As the proportion of women of Irish birth is fast decreasing that element in maintenance of the birth rate will soon disappear. Large as is the area of the Australian continent *Mr. Coghlan* thinks it is impossible that its people will become truly great under the conditions affecting the increase of population which now exist. Immigration has practically ceased to be an important factor, the maintenance and increase of the population depending on the birth rate alone, a rate seriously diminished and still diminishing.

Increasing industrialism has the same effect as undersaturation; the German birth rate, for instance, remained large as long as there was a demand for workers, but now there is an oversupply, a large unemployed mass, and dreadful distress. They have been priding themselves on their fecundity while sneering at the French, but have recently realized that to prevent starvation, they must reduce the birth rate to the French level, for they cannot get more land, more markets or continue to migrate as in the past. Stories of starvation and lack of work come from Berlin—not Paris. In February, 1909, Berlin had over 100,000 out of work.

### BIRTH RATES LESSEN WITH DEATH RATES

We can now consider a still further factor which influences the birth rate, and that is the death rate. From the cheapness

* *Journal American Medical Association.*

of human life in savagery, the birth rate is unaffected by the death rate—the unwelcome babies being simply slaughtered or left to perish sooner or later. In civilization, on the other hand, it rises and falls with the death rate, being as sensitive to such changes as to changes in density. Now, as civilization advances and the death rate goes down, the birth rate instantly responds.

*H. G. Wells** shows the dependence of birth rate upon death rate very clearly as to England and Wales:

| Period | Average yearly Births per 1,000 | Average yearly Deaths per 1,000 | Difference or effective yearly increase |
|---|---|---|---|
| 1846–1850..... | 10.5 | 23.3 | 33.8 |
| 1896–1900..... | 10.3 | 17.7 | 28.0 |

It is curious that the two rates should decrease by five and eight-tenths and five and sixth-tenths, respectively, so that the effective increase should not change in a half century. He also disposes of the claim that a reduced birth rate results from increase of illegitimate intercourse, by showing that the number of such births fell from two and two-tenths per 1,000 in the first period, to one and two-tenths per 1,000 in the end of the century. This is enormous—40,000 less per year among the 40,000,000. It is only one more proof of the undoubted fact of the gradual increase of morality, and that the world is getting better as evolution proceeds, and that the moral code is gradually advancing now as it always has. "The highly moral, healthy, prolific, pious England of the past is just another ideal delusion."

It has been said that the reduction of the birth rate is partly a result of figures, that is, it is more apparent than real, because of the modern prolongation of life beyond the productive period. There are now in every 1,000 population more old people who have passed that age than there were formerly, and consequently the births per 1,000 of population must be less, even if the number of children born to each marriage were the same. This is true, but those over fifty or fifty-five are too few in number to effect the figures markedly. The real test is the number of

* "Mankind in the Making," *Cosmopolitan*, November, 1902.

births per family and the number of marriages—and we have seen that these are both diminishing, and also the number of celibates increasing.

### DIMINISHING WAR LOSSES

As we advance in civilization, safety of each individual life is greater and greater. In time we will guarantee that the tiniest ovum, at the moment of conception, shall have all the rights of life of an adult. The women themselves will insist that it is murder to destroy an ovum. Selection will bring this about by the greater death rate of the women who commit abortions upon themselves. Of course, this will take a long time, for, as already explained, early abortions are not considered murder, either ethically or legally at present. In the meantime, this lessened death rate by cessation of abortions will cause an instant reduction in the birth rate. We are gradually waking up to the fact that we must place a higher value on human life. It is too great a burden to raise a child merely to sacrifice it in the end. Life may be as cheap as dirt among savages and barbarians, but civilized men come high. That is the real reason for the tremendous outcry against war. We have called attention to the benefits of war—as clarifying population, the elimination of the timid and evolution of strenuous types, and the beneficial blood lettings to kill the surplus. It is now time to look at the evils, and how they may eliminate wars in due time, that is, if the birth rate permits, for if we have too many babies, they must fight for our estate.

Wars have been diminishing in frequency from the time that savage man was perpetually at war and never at peace. In addition, in every war there is a progressive increase in the destructiveness of the weapons, yet a progressive decrease of fatalities, both numerically and proportionately. Only since the invention of gunpowder have armies been subsisted from home, and the art then arose of keeping up lines of communications and supplies from a base. Before this they "lived on the country," and an invasion must have caused awful destruction of life. The plan was found useless when *Louis XI* devastated Southern France and moved the people North, as the only and

successful means of defeating the invading Italians. Russia did the same to *Napoleon*.

There is a modern compensation working against warfare, and it is of such extreme power that it is quite likely to succeed in time. When populations were thin, each man had to be a soldier or die, and leaders of men were invariably the best soldiers. In modern times populations are too numerous for all to go to war, and the fighting is done by a part. Self-sacrificing soldiers are still to be had on demand, because of what we might call the first law of nature—preservation of the species. Since modern war exposes to death only those who have this gallantry in excess, it has a natural result of killing off the most soldierly. The least soldierly who stay at home are the best fitted to survive in modern life, and this slow process of weeding out the warriors, if continued long enough, would eventually put a stop to war from the inability to get the men. The people themselves will refuse to go to war except to repel enemies, and invasion of civilized nations by another will probably not then occur. Even now, with all the sensational journalism to get up glory and splendor for soldiers, there is a tendency to smile at the spectacular part. No matter how volunteers may sacrifice themselves for the stay-at-homes, they are soon forgotten and left to struggle for employment—their old positions often being occupied by stay-at-homes. Until recently it was even the law to keep volunteers out of their civil service positions. Business men and corporations are quite generally forbidding employees from joining the National Guard, or at least discountenancing enlistments.

Formerly, when all men fought, perfect measures were taken to care for their families. The widow became the wife of the eldest surviving brother—the Levirate. Now we find that when a man is killed in battle his wife and children must suffer, because the pension given them by taxing the stay-at-homes for whose benefit the husband died, is not sufficient for their support. Marriage, then, is already a bar to soldiering except in countries where everybody must do his share of national defense, and pensions are not given except for disability. Married men carry on the nation, the others are weeded out, and this also tends to eliminate the fighting instinct, though it is so far off

that we need not bother ourselves about it. Nevertheless, it has already gone so far that we had to resort to the draft in the Civil War, and the British discussed the same measure during the Boer War. Russia had to drive many a peasant to Manchuria. Modern leaders are more and more rarely its soldiers, and modern nations are not all soldiers by any means. The great future world nation cannot exist until non-fighting units are evolved.*

Anthropologists have repeatedly shown the deterioration in nations, following war. In France, for instance, procreation during the Prussian War of 1870 was left to the defective who could not enlist, so that the children born the subsequent year were very defective. War takes "the best we breed," and the cry goes up to stop the waste. *Hovelacque* and *Herve*† show how modern war eliminates the best and tends to deteriorate nations. Nevertheless, this deterioration is only a temporary affair after all, and in spite of all that is against the modern soldier, he does have an advantage after the fighting is over—which only takes a few of the best we breed and aids the survivors.

War losses are lessened also because it has become a huge ghastly game with rules like chess, only in place of "removing" the pawns we are permitted to "expend" lives in certain ways, and ways which are too deadly are not permitted—explosive bullets, chain shot, killing prisoners, etc. It is quite likely that the game will become so refined as to be bloodless, as it was once in medieval Italy, where a State hired foreign soldiers when it declared war. The soldiers did not relish being killed, and they made rules, or conditions, so as to be considered whipped when out-generaled. *Prescott*, in his Spanish Histories, mentions one campaign where only one man was killed—a cavalryman, who was thrown from his horse into the mud, where he was smothered, as his armor was so heavy he could not crawl out.

* "Even more serious from one point of view than the transport, remount and commissary scandals is the problem of caring for the hordes of discharged soldiers now clamoring for employment (after the Boer War). Their relief organization disbursed literally millions of pounds sterling in aid of widows, orphans and invalids, but the workhouses of the United Kingdom filled up with time-expired men, and in all the big towns masses of volunteers and reserves were vainly seeking situations in place of those their employers promised to hold open till after the war, but who did not do so."

† "Precis d'Anthropologie," p. 189.

The Red Cross Societies are a result of that modern necessity —the saving of life. Until the sixteenth and seventeenth centuries, the wounded were killed after battle because they could not be carried along, and this was more humane than allowing them to be tortured by the enemy or by the natives into whose hands they fell. One of the most important duties of the modern general is to keep his lines of communication so clear that the wounded can be promptly sent to the base, and then to their homes if necessary. His ambulance service is as important as the supply column. Nations even agree that articles marked with a red cross are neutral, sacred to the uses of the sick and wounded who can no longer fight.

The burden and expense of taking care of prisoners of war and guarding them is so great that nations are now discussing the advisability of paroling them, as is now customary in the case of officers who promise not to engage in the war again until exchanged. The paroled soldiers, of course, can go home and engage in "peaceful" pursuits, such as working in factories which are making munitions of war, and this would add to the nation's power at the expense of the enemy which paroled the prisoners. But it all brings forcibly to light the ridiculous side of the matter, and makes of war a game or sport rather than its original purpose of killing off the surplus population. All the Philippics against war will not stop it until it becomes useless, and then it stops naturally. We have no control over the matter at all. There is a current delusion that international arbitration is to stop it, but the Russian-Japanese war showed how false that idea was. The Czar—the most powerful man on earth and the originator of The Hague Peace Conference—even he could not upset natural law when the time came to fight. Arbitration has been tried for 2,500 years and failed. The Greek Amphictyonic Council, in 500 B.C., had full arbitration powers, and later the Achæn League. Likewise, the Hanseatic League, in 1284, established international arbitration courts in Northern Germany, and similar leagues existed in Suabia and on the Rhine. Peace congresses have been held yearly since the first one in Brussels, in 1848. All these leagues only solidified little States so that they could fight better—the modern German

Empire is a result. It has stopped all the little local wars and made bigger ones. When self interests compel modern nations to league themselves together, then wars cease between them. Of, course, it will come in time—a long time—and then the birth rate will lessen enormously as a matter of course. If there had been no wars in Europe in the nineteenth century there would have been 14,000,000 fewer babies born. In the future warless civilization an equal reduction of the birth rate will be a positive necessity. Then we will not have the ridiculous spectacle of a woman proudly saying she raised seven sturdy sons and sent them to war to be shot up. There seems to be some curious point of pride in producing food for powder. The future woman will point probably to her two or three children, all of whom she raised to live without war.

### LESSENING DEATH RATE FROM DISEASE

The main reason for the lessened death rate is warfare against disease, and here, too, the reason is the realization of the value of life. Modern science has shown that diseases once considered inevitable are wholly avoidable, and we are now organizing all kinds of agencies to prevent this appalling waste of life. Nevertheless, science is not entirely responsible for the lessened modern death rates, for the diminution began centuries ago. The main reason is the better standard of living. The death rate of London, for instance, several centuries ago, was 180 per 1,000, but has been gradually going down all the time until now it is less than seventeen. The tuberculosis deaths alone have diminished to one-third their relative number a half century ago, and recent statistics show that this gradual decline has not been affected in the least by modern sanitariums, which are really able to accommodate only a very small proportion and those of the well-to-do-classes. Some of this reduction, of course, is due to the evolution of racial immunity, for the disease seems to have about killed off the majority of the most susceptible. So many corpses show evidence of healed tuberculosis, that there is ground for the belief that the majority of us are already immune and that the disease is curable in over ninety-five per cent. of cases if taken in time.

Similarly pestilences are disappearing from among civilized people, and though science is responsible in some instances, such as smallpox and cholera, yet in others, like relapsing fever and typhus we really do not know the causes of their disappearance. Typhoid became a menace only when we crowded into masses too densely, but that disease, too, seems destined to disappear in time.

We might go on indefinitely through all the other diseases and show a progressive diminution, particularly in those afflicting children, among whom there has been an enormously lessened mortality, although, as elsewhere explained, they are still unnecessarily slaughtered by the tens of thousands.

Alcohol is still a powerful means of ridding the earth of surplus people, for it annually destroys immense numbers whose deaths are reported under the names of the final diseases which ended the life. Now, it is a fact that the Mediterranean nations which have known alcohol a long time, were formerly very drunken, but have had the topers killed off long ago, so that while they consume immense quantities of wine—nearly every one drinking—there is a minimum of drunkenness and very little death from alcoholism. Savage races which have never known alcohol and have never had their drunkards killed off, are potentially drunken—that is, when they get alcohol they kill themselves with it. Mediterranean nations survived because their alcohol was diluted and the destruction was gradual—that is, only the worst drinkers were destroyed in each generation. Teutons are in a transition stage, having known alcohol some centuries, and though they have been frightfully drunken in the past there is now a vast improvement through the deaths of the worst. We are becoming more and more sober as a nation, partly by reason of this mortality. Some reformers advocate increasing nature's way by forbidding procreation to the drunkards—so that we will weed out these lines without actually killing the drunkards or waiting for the alcohol to do it. The prohibitionists by removing the alcohol would save all the potential drunkards to raise children with the same parental drinking desires. Prohibition, though always accomplishing its main purpose, has failed except in the sparsely settled communities;

hence, this evolution is stopped in these localities, but in thickly settled places it has gone to such an extent that the great majority of employees in certain lines of business are abstainers. It is now possible for railroads, steamships, etc., to insist upon total abstinence of employees—a thing impossible three centuries ago. Hence, deaths from alcoholism are growing less and less, and will finally disappear,* although the consumption of alcohol is increasing.

City life has become so much improved that a few observers have concluded that cities are no longer "consumers of population" flowing into them from urban districts. Indeed, the trolleys and other means of transportation are practically destroying city life for the well-to-do who are now reverting to the normal suburban life of our ancestors, even if the men spend several hours every day in the city. Nevertheless, there is plenty of evidence that modern city life is far from the normal and a certain mortality is unavoidable.

In every direction we turn we find the same life saving. Even the dreadful destruction of life from modern machinery, railroads, mines, electric apparatus and the thousand and one accidents of civilization, is being lessened by the compulsory use of safety appliances, and this one branch of human endeavor has become so extended that we have annual exhibitions of new safety devices. We have even shown that famines themselves are becoming less frequent in the higher races, though just as bad and frequent in the lower.

## LENGTHENING OF AVERAGE LIFE

Now, all this life-saving means the prolongation of life, and the average length of life has thus increased from thirteen years in the seventeenth century to over thirty-five at present, and we can expect a still further increase, though, of course, the age of senilety is what it was in biblical times. No one can live any longer now than in ancient times, for our physique is practically the same.

An interesting result of the lessened mortality of early years

* "Alcoholism, a Study in Heredity," by G. Archdell Reid.

of life and infant saving, is the necessarily increased mortality later. That is, every one must die sometime, and if an infant is saved to live thirty years it adds one to the deaths in that decade. Our census figures thus show that for people over sixty years old, the death rate in each five-year group, sixty to sixty-four, sixty-five to sixty-nine, etc., has increased since 1890, and more so since 1900.

The low average age at death in the tropics explains the comparative immunity of these people from the diseases of mid-age and old age. Cancer, for instance, is very rare.* These affections merely reduce the advantage we gain by prolonging life. Cancer, various forms of *Bright's* diseases, arterio-sclerosis, apoplexy, and a host of senile diseases are modern, and the penalties of preserving so many beyond the age of vigor.

The question of old-age pensions has become acute simply because so many men now live beyond the age of effective labor. A few centuries ago they died while in the harness, and before that they were deliberately slaughtered if they lived too long. The unceasing lengthening of average life is thus producing a progressively larger class of old men who must be pensioned, by the operation of the very law we are discussing—the necessity for life preservation. Society is thus increasing its own burdens, and both Germany and England have found it necessary to pension the aged. Perhaps, indeed, it may result in greater social efficiency, by giving over more positions to the youthful. Compulsory retirement at 70, 65 or 60, according to the trade or profession, will soon be universal because it is necessary and the pensions will be more than balanced by the increased earnings.

## EVERY LIFE-SAVING DEVICE LESSENS THE BIRTH RATE

The point of the matter is the fact that every life saving discovery must, of necessity, reduce the birth rate, for it makes it unnecessary to produce so many children. That is, the trend of civilization must always be in the direction of smaller families. *Mr. H. G. Wells* in "Modern Utopia," says that "*Malthus* has demonstrated for all time, that a State whose population con-

* *British Medical Journal*, June 28, 1902.

tinues to increase in obedience to unchecked instinct can progress only from bad to worse." As a matter of fact it is an instinct to reduce the birth rate and always has been.

The proportion of children raised to produce children themselves is the real test of civilization, and that proportion is constantly increasing. There seems no doubt that the time will come when nearly all civilized babies born will survive. But as population cannot increase markedly after a certain density is reached, it is quite evident that the only birth rate possible is a child born for every adult who dies.

An interesting side-thought as to the large birth rate of lower races who exist in thick masses in the civilization of higher races, is the rapid evolution of robust types able to resist disease. The Russian peasant woman, as a rule, has an enormous family, often as many as sixteen, yet very few survive, as there is a terrible weeding out by infections due to ignorance of sanitation. The type in time should be remarkably resistant to disease, and it is said that the Russian soldier survives conditions which will kill an Aryan. People frequently remark upon the strong, healthy appearance of Indian babies, forgetting that we see only the survivors—the feeble infants invariably perishing. Consequently, a few biologists are worrying over the fact that modern life-saving is preserving the weaklings, which formerly perished and has put a stop to the evolution of a more robust type. They even say it would be better to let the weaklings die. As a matter of fact, survival is proof of fitness. The weaker who are intelligent enough to escape enemies are the fittest. Robust, muscular types are not needed in modern life as they were in primitive savagery. Indeed, the frailness of physique which these writers deplore as a possibility, is already an accomplished fact in the higher races, and is most marked where there is the greatest decrease in infant mortality. Army recruiting officers in England, France, the United States, and even in Germany, are finding a greater and greater percentage of applicants below par. Yet that is not necessarily a disadvantage if the man is healthy and can escape causes of death which will destroy the less intelligent. That is, evolution is not always moving along the line of increased resistance to disease, but increased intelligence, so

as to dodge disease. Smallpox was very quickly weeding out the most susceptible and evolving an immune race, as in the case of measles, but vaccination stopped that, and the only ones now destroyed are the families not having intelligence enough to realize the protective value of vaccination. It is even suggested that we hasten this process by abolishing compulsory vaccination and let every anti-vaccinationist die as soon as possible, so that we will become a nation of vaccinationists. Modern evolution, then, is in the direction of preserving the intelligent irrespective of physique, and that process has always been going on. The loss of the body hair, for instance, and the necessity for clothing, are decided advantages in the changes of temperature to which we are subjected. So in the future, the use of all kinds of protective vaccination measures will be equally necessary and advantageous, permitting survival which would otherwise be impossible. That is, the present and future evolution of man, as described by *G. Archdall Reid*, is dependent upon a greatly reduced birth rate which is, therefore, a necessary and beneficent phenomenon, which, in its turn, is due to the lessened death rate.

NOTE—Since the above chapter was put in type, W. S. Rossiter has published his analyses of the census. He finds that if the average American family had not shrunken from 5.8 persons in 1790 to 4.6 in 1900, the native population would be 20,000,000 more than it now is, and this agrees with the estimate on page 211 that our 20,000,000 immigrants have prevented that many births. The advantage of immigration, if it really can be considered an advantage in the long run, is the fact that laborers are imported for work to be done immediately, so that we need not wait for the birth and growth of natives to do it, and we are thus always twenty years ahead of the position we would occupy if dependent on our own increase.

# CHAPTER XV

## COMMENSALISM OR MUTUAL AID

MUTUAL ASSISTANCE IN UNIONS—ADAPTATION OF PARASITES—MUTUAL DEPENDENCE OF ALL LIVING THINGS—ALL MEN AID SOCIETY—HUMAN LIFE SACRED BECAUSE USEFUL—MUTUAL BENEFIT OF INTERNATIONAL UNIONS—AMERICAN NATIONS MUTUALLY DEPENDENT—IMPERIALISM IS COMMENSALISM.

### MUTUAL ASSISTANCE IN UNIONS

The diminution of the death rate, which is the cause of the diminution of the birth rate, is itself a result of the great natural law of commensalism or mutual aid which is at the basis of all coöperation for survival. This law is part and parcel of the struggle for existence, that is, organisms which aid each other against a common enemy have a better chance for survival. Indeed, every combination depends upon the mutual assistance of the units and their mutual dependence, and as such unions began when the cells began to adhere, the law of mutual aid is as old as multicellular life, and as it is also the basis of the modern expansion of nations and their increasing dependence upon each other, it is necessary to have a clear conception of it before we can understand the present trend of events. It is bound to cause profound alterations in our form of government, and in the relationship of the lower and higher races, all of whom are under such intense expansive pressure.

The first organization, of course, was the family, and differed in no respect from that of lower mammals, but in time large bodies or clans were bound together, and the first nations were all blood relatives. Then larger and larger organizations survived by reason of their ability to destroy weaker competing clans. In this way nations have been growing larger and larger by the absorption or death of competitors, and the struggle for

existence was changed from an individual fight to a collective one. Of course, no organism or nation can survive unless means are taken to preserve and protect each of the units. That is, life saving within the organization is absolutely necessary to enable it to destroy the men of competing clans or nations. Mutual aid within the nation is, there ore, essential, but the process is even more extended still, for it not infrequently happened that two competing tribes were compelled to form an alliance against a common enemy strong enough to destroy them separately. Such alliances of dissimilar peoples form the bulk of history, and find their counterpart throughout all nature.

Biologists have collected so many instances of two animals or plants of different species living together for their mutual benefit that we are now beginning to think that this phenomenon is universal. The vast majority were formerly called parasitism because one organism was small and subsisted on food obtained by the other, and no benefit to the larger could be shown. Investigation has brought to light this benefit in case after case, and caused us to transfer the organism to the commensal class. That there is mutual benefit in all cases is more than suspected from the universality of the association.

Jackals and hyenas dogging the footsteps of lions to eat the bones left over from the feast warn the lions of danger. Various "sucking fish" attach themselves to sharks, turtle, swordfish and whales as guides of some sort. Birds benefit large animals by eating their insect pests, the petrel on the whale, also a snipe called phalarope, carabao birds, cow birds, and so on indefinitely. Until the benefit was found, other names were invented, such as mutualism for those strange partnerships helpful in some way, like the partnership of blackbirds and fishhawks, the former building on sticks outside the nests of the latter and no doubt warning the hawk of danger or even protecting the whole nest during the long fishing absences of the hawk. Messmate is the term used for organisms which merely share food, but in which no benefit to either could be found, the weaker simply taking the crumbs from the rich man's table, like the chicken taken to town by the economical farmer to eat the grain dropped from the mouth of the horse. Anyhow, we know that the class of para-

sites is growing smaller as we learn more about them. The idea is also growing that every species has commensal species upon which it is wholly dependent for existence, and they must live side by side. Hence, it is not at all unlikely that every parasite will be found to bear some commensal relation to the host and the class of parasites disappear from our books. The word symbiosis is generally used by naturalists to cover cases of animals "living together" for their mutual benefit. We may here and there refer to organisms as symbiotics, but the word commensal is preferable, for though etymologically it merely means "eating at the same table," it has acquired an additional meaning of mutual aid.

### ADAPTATION OF PARASITES

*Claude du Bois-Reymond,* Berlin,* shows that disease is not a conflict "between parasite and host; it is in truth a kind of imperfect symbiosis." That is, if germs killed us off they themselves would die for want of food. Their existence, then, indicates a delicate balance and we are both able to survive as species, though many individuals perish. The advantage to them is very evident, for without us they would die, but the commensal advantage to us is not so clear. There is an advantage, nevertheless, in being diseased, though we do not know yet what it is. If there were no benefit, the people who promptly killed the invaders would have the advantage in the struggle for existence over those who had their vitality reduced ever so little by an infection, and by the laws of selection, the resistant ones would be the only ones to have offspring. Then, in time, the whole race would resist the germ and the latter would be exterminated. No doubt this comes about eventually in every disease, and new diseases are constantly arising in the passing millenniums, as new species of bacteria are evolved, flourish and then perish from lack of food, but during the process commensalism rules. Death due to parasites, such as typhoid bacilli, may be but the preliminary to an approaching immunity, and some future beneficial commensalism, or, indeed, it may be a disturbance or misplacement of commensal organisms. If that is so, then all dis-

* *American Medicine*, January 31, 1903.

ease organisms are commensal even before perfect tolerance is established.

Adaptation of parasites and their evolution is quite clearly brought out and explained in a paper by *Dr. J. G. Adami,* of McGill University.* He shows how we evolved along parallel lines with the bacteria. If an ancient Greek would visit us he would promptly die of tuberculosis, pneumonia or influenza. In the last 2,500 years we have developed an immunity which is effective in killing these invading parasites, unless they are too numerous, or we have lost immunity by some other cause of ill health.

When we first found out that we were full of bacteria we were horrified—now we know that those in the mouth dissolve foods lodged between the teeth; those in the skin dissolve dirt in the pores and keep them open; those in the intestines serve some unknown purpose in digestion. Certain worms are found in every fish of certain species, and must do some good to the digestion. Indeed, the infected are so much at an advantage that whenever biologists experiment with an organism by keeping it absolutely sterilized, it invariably dies.

*Pasteur* is reported to have said, "*C'est dans le pouvoir humain de faire disparaître du monde toutes les maladies parasitaires.*" If there is any truth in the trend of the present thought as to the possible benefit of alleged parasites, we can rest assured that *Pasteur's* theory is unnatural. To eliminate disease would probably be a disaster, for we are adjusted to the present organisms —indeed, it is known that one disease balances another. Many instances are known where one infection is killed off in another accidentally acquired. *Garnier* and *Sabarneau* have reported† experiments which show an antagonism between the germs or poisons of two diseases. It is not at all doubtful that we will find in this direction a use for some of the numerous bacteria in the digestive canal of man—they may be guards ready to kill deadly invaders. Indeed, *Metzshnikoff* has asserted that if we infect ourselves with lactic acid bacteria found in sour milk, we actually prolong our lives. *Charrin,* of Paris, has proved that

* *American Medicine,* April 29, 1905.
† Archives de Médecine Expérimentale.

rabbits fed on sterilized food die of starvation, because they naturally depend on some digestive function of the bacteria. We can be too clean—sterilized foods may be fatally bad. Nevertheless cooking of food has had the curious result of causing a loss of immunity to certain organisms, apparently harmless to lower races, who are nests of parasites, and we are now really dependent upon this partial sterilization.

### MUTUAL DEPENDENCE OF ALL LIVING THINGS

Domestic animals are all commensal, for without them civilized man cannot exist. The cat cannot exist without man, and it is tolerated for its benefits. The horse has been man's companion so long and undergone such tremendous artificial selection, that we really are doubtful as to what his wild ancestor was like. Our intense love for the horse is really self-love, he is part of us. No automobile, bicycle or any other contrivance for transportation can wipe out the joy of being on horseback. It is home—for there we evolved. If he went fast he allowed us to escape enemies or find food, and those with the love of fast horses survived by the natural selection of these lovers. The horse haters were all killed off in prehistory. Will any artificial, unnatural religion, therefore, ever be able to stop this sport? The horse gets just as much joy out of it as man, or he would not have evolved with man.

It is a strange side issue to this new idea in biology, that even the carnivorous or herbivorous enemies, which eat entire individuals of another species, are really beneficial in one sense. If they did not exist, their victims would increase beyond the food supply and die anyhow. Birds and insects which occasionally destroy vegetation are generally merely pruning the branches or scattering the seed or pollen. *Darwin* first showed the commensalism of clover and bees, the latter carrying the pollen to the female flowers from the male. What a strange outcome to modern biological discoveries, as to the preservation of the species being the first law. Our enemies are friends in disguise—gardners thinning out the garden to improve the rest, the very basis of evolution, for without enemies we would never have

improved! It is now known that no group of plants or animals can be affected without affecting others. The relationships are so close and all are so interdependent that the destruction of one species may even cause destruction of the commensal organism. The whole living world, from man to bacteria, exists on a firm basis of commensalism. Whatever is, is good.

*Prince Kropotkin* has written a book on this one topic, showing that the struggle for existence is not to the strong always, but sometimes to the weak when they are the fittest for rendering service to the strong.* There has actually been a new phrase invented to cover these cases—"the utilization of the unfit"—that is, those unfit for independent existence.

*Woods Hutchinson*† writes of love as a factor in evolution, and deals at some length with the question of commensal relationships of organisms. What he calls love is, to a certain extent, the tie which binds together those organisms which depend upon one another, as in herds of one species, or associates of separate species. Self-sacrificing love for wife or offspring is but one form of commensalism, for in all cases of mutual association there must, of necessity, be some self-sacrifice. In other words, commensalism is based on mutual altruism. Pure selfishness (egoism) defeats the object and destroys the opposite organism. Every now and then the announcement is made that mutual aid in communities ends the individual struggle for existence. That is an error, for the struggle keeps up in other ways than murder.

Commensalism shows, of course, that any organism which cannot render assistance in return for services rendered it, is a burden which in time must destroy its benefactors, and all such must eliminate themselves of necessity. The obligation to return favors is the prerequisite for survival and is universal. The human body itself is formed of specialist cells in mutually beneficial relations. A few years ago, *Prof. S. B. Laache,* of Christiana, Norway, published an article on "Reciprocity in Pathology," in which it was shown that the various organs and parts of our body are also in commensal relationships, that is, mutually assisting each other, yet each dependent on the rest.

* "Mutual Aid, a Factor of Evolution." † *Monist,* January, 1898.

Similarly, society is formed of specialist men or groups of men in similar dependence on society for survival and rendering aid to society in return.

### ALL MEN AID SOCIETY

Political economists have repeatedly shown that it is utterly impossible for any one, except outlaws, to avoid aiding the social organism created to enable him to survive. By indirect taxation we all support society even though we do not pay a penny of direct taxes. Payment for survival, then, is the basis for taxation, and it is the reason why taxes on necessaries are universal. It is often incorrectly said that taxes on luxuries should be the basis of governmental support, on the theory that property protection is the main reason for governments and should pay the bulk of the expenses, but as a universal rule the world over the main support for all government has quite naturally been obtained from the necessaries of existence to compel those without property to pay for preservation.

The salt tax for instance, is said by *Dr. A. C. Lane** to be "the one that the poorest mortal cannot evade if he would live. It is the last screw to be placed on abject poverty." *Doctor Lane* shows why salt is such a necessity. Living tissues arose in the oceans and are marine even yet, for all cells are bathed in salt solution and are killed by pure water. The degree of saltiness of the serum varies greatly in different animals, and it was thought that this would give some hint as to the prior saltiness of the ocean when the first land forms emerged, but natural selection would fully account for changes in the course of ages—changes due to a lack of salt in some environments and an excess in others—particularly those remaining in an ocean of increasing saltiness. In the meantime salt is a necessity, and as men do not get enough in food, they must buy it from those who make it. The more crowded the community and the greater the difficulty of obtaining salt, the greater is the revenue. The Chinese in the interior of the Empire pay enormous prices for it, and the tax yields much revenue. The same facts are also found in ancient times.

* *Science*, August 2, 1907.

The modern organization of charity is an entirely natural outgrowth of the law of mutual aid. Indiscriminate giving destroys the self-reliance of the recipient and induces pauperism or social parasitism, and the welfare of society demands that it be ended. Consequently, the basis of all relief is to tide over a period of accidental inefficiency or to increase one's earning power to the point that he becomes self-supporting. This plan has now been carried to such an enormous extent that the voluntary annual contributions mount into the scores of millions, not counting the immense sums given to educational institutions. The London hospitals alone annually require more than $5,000,000 in contributions, and the same rate holds in other cities. Of course charity is often if not generally overworked, and tends to save the worst elements. A certain amount of abuse is unavoidable, but the basis of real charity is mutual aid, which saves every human life capable of rendering some aid in return. Luckily, the present movement is in the direction of compelling the family to support its inefficients—sick, insane, blind, etc.—so that burdens are being placed where they belong. Nevertheless, society is being burdened to a tremendous extent in supporting people formerly sacrificed, and there must be some benefit.

### HUMAN LIFE IS SACRED BECAUSE USEFUL

What benefit can be derived from supporting the old, feeble, sick, criminal, insane, idiots and other State charges? This is not a hopeless question, in spite of the apparent parasitism. Labor unions demand that the criminal shall be supported by taxes, and shall not support themselves by work which competes with free labor. It is much more expensive to them, of course, as the taxes eventually are paid by the workmen of the country though ostensibly by the rich. All land and house taxes only raise rents; taxes on corporations, such as the Standard Oil, merely raise the price of oil and every one pays a trifle of the tax.

Civilized tribes which supported the aged must have been benefited by their mature judgment, experience and advice, and been better fitted for survival. So this load is necessary and beneficial. The sick and feeble must also come under

this head for they not infrequently furnish better brains than the robust. The insane are really sick, and so frequently recover to become useful members that it is necessary to support them. Criminals also recover, that is, the young or "accidental" offenders. The tendency, of course, is toward life confinement for habitual criminals as cheaper and better for the race. Degeneration or even insanity itself is now being regarded as no excuse for crime—life imprisonment being ordered in asylums instead of prisons. Why not destroy these burdensome types?

Society having evolved for the very purpose of life saving, it has quite naturally created the belief that human life is sacred. He who takes it wantonly must die, and such executions were formerly considered to be divinely ordered, though now they are looked upon as merely an effort to make life safe within the organism. The saving of criminals who have not done anything worse than offend against property is then quite natural, for it enhances the value of life. The law of mutual aid seems to be violated by our system of keeping the American Indians alive. We feed them, house them and clothe them, and are trying to raise them to a self-supporting basis in their civilized environment. It is doubtful whether we will succeed, for most of the tribes are not possessed of sufficient intelligence, and education never increases the size of the brain or the average intelligence. In like manner, through the efforts of a missionary, *Dr. Sheldon Jackson*,* the Eskimo of Alaska have been preserved by means of reindeer, which he imported for them. Otherwise they would have perished as the white man had taken away their other food supplies. These people seem to be of no known use on earth, and might just as well have been permitted to die out by natural law, for they will be a burden to higher races for all time instead of an assistance. Yet it does seem that the trend of civilization is to try to get good out of everything. Barbarism destroys ruthlessly—civilization preserves all except that which is known to be harmful to higher man. It is quite likely that these lower types will, in time, be able to furnish society with necessaries of some kind—material or labor—and their preservation will prove to be the

* *The Technical World Magazine*, Chicago, 1907.

highest wisdom. But now and always they will be types kept alive by the intelligence of higher races and not by their own.

### MUTUAL BENEFIT OF INTERNATIONAL UNIONS

The law of mutual aid is at the basis of all the larger international organizations now in process of evolution. Nations and races are drifting into a condition of dependence in which they are mutually beneficial, and of course that means that in the end none can survive unless they are of benefit to mankind in general. Each is already surrendering some of its independence, making some sacrifice, and rendering some aid in return for aid rendered to enable it to survive.

The independence of the weak is a pure myth. Only those are independent who can sustain themselves. Cuba is not independent—never was and never will be. The independence of the Hawaiian Islands was a myth. They would have been part of the British Empire but for the protest of the United States many years ago when they were seized by the British, and they have been American outposts ever since, wholly dependent upon the United States for political existence. They were buffers between us and harm. Their change of status to a political territory of the United States has not changed their real condition in the least.

The relationships of races are pure commensalism. England gets enormous benefits from India or she would leave, as she has utterly failed to colonize there. The Dutch nation is benefited in some way in Java, although Dutchmen never survive there as colonists. Indeed, no two races can live together except by commensalism. The Indian and the Malay are also benefited. Destroy the partnership and both suffer. Likewise, our occupation of the Philippines must be commensalism, mutually beneficial to both Filipino and to our home people, even if many of us die in the work. If it is no benefit we will evacuate, because national altruism does not yet exist. Cuba is beneficial to us. Wiping out of yellow fever alone increased our saturation point, and has saved us hundreds of millions of treasure and thousands of lives. Our alleged altruism in Cuba was politics—playing to the galleries—for it is a commensal organism, and will play that

part whether as a separate dependent government or a territory of the United States.

If Irishmen had been less efficient fighters and less liberty loving, they would not have been fighting each other, and would have been welded into a mass which Englishmen could not have conquered piecemeal. The course of events is really making them an integral part of the great English nation, gradually welding them into the great mass. Irishmen must learn that they are at last in a commensal relationship, as necessary to Englishmen as Englishmen are necessary to them—a union such as there is now in the other islands between descendants of ancient Britons, Angles, Saxons, Danes and Norman French. *Mr. Sidney Brooks'* letter in *Harper's Weekly* (April 18, 1903), gives a fine description of the recent attempts at amalgamation of the English and Irish peoples. He even speaks of the New Anglicized Ireland.

Numerous writers have dilated upon the excellence of the Dutch civilization in the East Indies—an exception to the universal failures of Dutch colonies all over the world—that is, not failures to colonize, but failures to so conduct their government that it remained healthy and a part of the home government. We have been accustomed to hear of the Dutch East Indies as a sort of Elysium. The fact is that the Dutch are failing in the Indies because they are violating the law of commensalism by demanding more than they give They have revolutions and insurrections constantly on their hands—indeed, one lasted thirty years—and the people, including not only European residents, but the half-caste , recently demanded annexation to the United States, Germany or England, to escape the burdens laid upon them by the Dutch.

In the *North American Review* (1903), *Mr. Hugh Clifford* drew a very instructive parallel between two rival systems of governing Malays The Dutch have looked upon their East Indies as sources of revenue solely; have ruled with the idea of increasing that revenue, and have forced the natives to labor or starve. The British have invariably looked to the mutual interests of rulers and ruled. There is no forced labor, and all taxes are spent on the colony.

The fate which has overwhelmed the Spanish dominions was no doubt partly due to their neglect of the law of mutual aid. All Spanish colonies were exploited for the sole benefit of the mother country, and the natives were neglected. They thus killed the goose which laid the golden egg. Anglo-Saxons, on the other hand, feed, protect and develop the laying capacity of the goose. The prosperity of the natives of the dependencies have increased the home prosperity. If she had followed Spanish methods in India, England would have been forced out long ago. She is in Egypt and Malta to-day, and making them prosperous on commensal lines, where the French failed because they exploited the native and did not know the value of commensalism.

For one brief period the English government adopted Spanish selfish methods, when the crazy Georges were on the throne, and they have regretted it ever since. The Spaniards in the Philippines neglected the law to such an extent that the natives are suspicious of every proposition submitted to them. Their universal experience in individual bargains has been that they have been cheated, and they cannot understand as yet that anything can be designed for their benefit. The only ones who really had the good of the natives at heart were the Friars, who have accomplished about all the good done in the Islands, and that is really greater than in any other Malay country, except where the English have adopted the law of commensalism in the Malay peninsula—the Straits settlements. It is also a sign of the trend of events that independent Malay States have noticed the immense commensal benefits of British protection, and one by one are coming into the Empire and getting British brains to manage affairs. In the Straits settlements such arrangements, with an Englishman at the head of every department of government, bring almost instant prosperity—life and property are safe; railroads and highways are built; taxes are honestly collected, and less of them are needed, and in every way there is created a modern high-grade government which would put our cities to shame. Indeed, where the British control lower races, there is infinitely better government than the disgraceful specimens of American graft at home.

### AMERICAN NATIONS MUTUALLY DEPENDENT

The commensal relations of Canada and the United States are fully explained in an article by *Mr. Charlton* in *The Outlook* (1903). He shows why we are so absolutely dependent upon each other, and that reciprocity is a necessity. In another article by *W. T. Hathaway*, in the *London Contemporary Review*, "it is shown how the commerce between the two has increased in spite of all taxes and restrictions. He refers to the prodigious investments of American capital in Canadian coal, iron, oil, lumber and tobacco, and railroads, Americans already controlling the Canada Atlantic Railroad, and attempting to buy the Intercolonial, Grand Trunk and Canadian Pacific Railroad.

The same story is told of Mexico which now has many hundreds of millions of American money invested in her development. She buys fifty-eight per cent. of her goods from us, and ships to us eighty per cent. of what she sells. She now has American iron and steel works, sugar refineries, packing houses, ice plants, tanneries, water works, electric works, street car systems, and a host of other things besides American mines and farms. It is increasing in prosperity at a prodigious rate, and is already dependent upon us. A stable government is necessary, and if no dictator equal to *Diaz* will arise to succeed him on his death, we will see all these millions of property lost, population decrease, and ruin come as in Hayti.

There is not the slightest doubt that South America and the United States are mutually dependent upon each other—real commensal organisms. Each will suffer if the other decays. We must help them survive or we will not be as vigorous as we should. Should we refuse to do this duty to a weaker neighbor, some European nation will do it in time for her own advantage. The German Empire is embarked on an expansionist policy of this sort.*

### IMPERIALISM IS COMMENSALISM

This brings us, then, to the modern movement which we have just inaugurated—a movement which has caused such an hys-

* See "The Pan-Germanic Doctrine," Harper & Brothers.

terical outburst from the anti-expansionists who did not understand its true significance. It is new because it is taking us to the tropics where we cannot survive, as we will subsequently explain, all prior expansions having been true migrations for permanent colonization—murdering earlier arrivals—and the Aryans have been practicing it to our certain knowledge for 3,000 years or more. No arguments from New England can root out the desire for self-preservation, inherited from Pilgrim fathers who were crowded out of England and expanded into lands occupied by American Indians. The descendants of the first settlers are now crowded out and desire to expand into lands occupied by Malays, who, by the way, are blood relatives of the American Indians.

This movement, falsely called imperialism, is not colonization in any sense of the word. In *Popular Science Monthly*, 1898–1900, there is a description of true colonization in a series of papers by *J. Collier*, of Australia. He shows that it is a biological process—a budding forth of a piece of the old organism—and the piece reproduces the type of the old. The details do not concern us here—we need to note merely that it is migration for a home and food. We have depended on colonization since the beginning of our history, only we make a pretense of buying the land first and then call it settling our territories. In 1492 there were 300,000 filthy, savage Indians overpopulating a land which now supports 85,000,000 or 90,000,000, and the savage had to step aside, for colonization generally demands the extinction of natives. The rights are with the strong, and our grandiloquent talk about the rights of the Indians is unscientific. Unless it renders a return benefit, nothing can exist where something stronger can replace it. In accordance with the tendency to attribute natural acts to a divine origin, the Hebrews even believed that God commanded them to drive out the Canaanites. Perhaps the Pilgrims thought the same, down deep in their narrow hearts. If we need the Philippines for colonization, the Malay will have to move on just as he made the pre-Malay move, and just as they in turn had forced out the Negritto, and just as the latter, probably, forced out an earlier race. The Tagal is a recent intruding expansionist who arrived only a few

centuries before the Spaniard, and he has no more right there than any other nation which could get more out of it.

We must not confuse natural law with our moral ideas, as the two are absurdly inconsistent. Our altruistic standard is the result of a constant evolution, and what was moral 3,000 years ago may be highly immoral now. The family is younger and its standard is, therefore, less complex, and we see families doing what not one of its individuals would dare to do. So clans or associations have a still younger code, and even Christian churches as corporations are soulless, and will do things as a body for which each member would be expelled in disgrace if he did for himself. Nations, the youngest of all, are still positively brutal, fighting each other like prehistoric savages. Hence, it follows that our moral standard is not only always in advance of what we are, but it is so far in advance of what nations are, that it is unscientific to expect colonies to conform to such a high standard.

But this expansion is based on mutual aid, demanding preservation of the Filipinos—not their extinction in the brutal way of our colonists. It is something higher, better, more advanced than colonization. We can get no good from the Philippines unless we render services to them, and those Filipinos who expect everything from the United States but do not desire to return the benefits are as foolish as the Spanish nation which wanted everything, yet gave nothing to its colonies. Benevolence alone is as foolish as exploitation alone. Left alone, the poor Filipino will become in time a commensal organism to some conquering European power.

One of the curious phases of our present politics is the amusing attitude of the descendants of the stay-at-home New Englanders. This people, themselves the descendants of expansionists, have greatly multiplied, and for 250 years have been pushing the surplus to the West by expansion. The surplus has been kept "moving on" and "moving on" until it bumped up against the Pacific barrier and piled up. Still the pressure from New England and the East kept up, and the flood of people went on across the Pacific. What a curious illustration of heredity! The people who would not "move on" have transmitted their char-

acters to descendants—the present anti-expansionists—who now raise a great outcry against the "moving on" of the very relatives they forced out of the home nest. They drove out their surplus children and now criticise them for being driven out. The stay-at-homes are, therefore, naturally and normally anti-expansionists. If they had been expansionists they would not have remained in New England. The same has happened in Great Britain, where villification has always been heaped upon the men who have built up her greatness, from *Clive* and *Warren Hastings* down, and it was all done by the anti-expansionist stay-at-homes.

The only weak nations ever permitted to live are the few like Switzerland and the Netherlands, whose separate existence is necessary to the big ones—a species of commensalism to more than one organism. Such weak nations, kept alive by other influences than their own exertions, are like those of tropical America which have no excuse for existence except to protect us through the *Monroe* Doctrine. They were necessary for us and survived as fittest for their commensal existence, for if they had perished from attacks of our enemies we would have been subject to attack also. They are buffers between us and harm, just as the dependent Balkan states are buffers between the Turk and Christianity, and just as Turkey itself is kept alive to prevent bigger nations flying at each other's throats. For this reason the Armenian murders could not be stopped. Alsace-Lorraine is an unfortunate shuttlecock—if granted independence the price of European bonds would shoot upwards at once. This policy of ours—letting poor degraded savages of tropical America imagine they are fit for Aryan self-government, and murder each other by constant civil war—is a cynically brutal one according to moral standards, as brutal as putting wild animals into an arena and letting them tear each other to pieces, but it was natural, for it was necessary for our existence. The time has now come when their decay is a source of danger, and we must help them survive if we are to survive. That is, expansion has become mutual preservation.

# CHAPTER XVI

## THE MYTH OF ACCLIMATIZATION

TROPICAL INFECTIONS—ADAPTATION TO ENVIRONMENT—USES OF PIGMENTATION—ELIMINATION OF MIGRANTS—DISAPPEARANCE OF HYBRIDS—COLONIZATION IN ZONES—ILLUSTRATIONS OF MISPLACEMENT—OPINIONS OF OBSERVERS—NEGRO DECAY—AMERICAN DETERIORATION—THERE CAN BE NO AMERICAN TYPE.

### TROPICAL INFECTIONS

Before showing that our tropical expansion is based on the commensalism existing between us and the natives, it is necessary to prove that we cannot colonize there. The history of attempts of white men to colonize in the tropics has been a very sad one. So many failures have resulted that it is now generally acknowledged to be impossible. White men might live anywhere on earth, perhaps, if they knew how to protect themselves. They can live under the ocean in a diving bell for awhile, but that does not mean acclimatization to a fish's environment.

A great deal of the past mortality in the tropics has been due to infections, but since we have learned how to escape them, the death rate has been diminished, though not so very greatly, for as soon as an Englishman in India or an American in the Philippines, begins to break down, he is sent home. Our army statistics place these cases with the home troops. Some of our tuberculosis, for instance, arises in the Philippines, and the deaths occur in the United States. This reduction of the death rate in the tropics has given rise to a widespread opinion that acclimatization is possible, and it seems an almost hopeless task to convince people of the truth. To dodge or hide from the causes of death is the necessity of the well-housed white man, but the tropical native resists the same dangers which would kill Northern types. That is, a white man cannot safely do manual labor

in the open—the test of acclimatization. Even with all his care, his children deteriorate unless sent North.

The sanitation of Panama has so completely removed causes of death that thousands are now working at places formerly considered uninhabitable, and the death rate has been so greatly reduced that it is said to be a healthier place than New York City. Yet, as a matter of fact, the death rate is kept down by sending home all who cannot recover there, and, indeed, many do die after they come home sick. No "colony" can survive if it must send its invalids away to save their lives. Indeed, it cannot afford such expenses as those needed in Panama to keep the workmen alive, and for that very reason it is generally acknowledged that tropical "colonies" will always be unsanitary except when a rich Northern nation supplies the funds. No little community can support the enormous sanitary force needed in Panama, for instance.

## ADAPTATION TO ENVIRONMENT

Anthropologists have at last learned to apply to man the laws which are found to govern the spread and survival of any other species. We have finally awakened to the fact that every character possessed by a species has been evolved by natural selection to enable it to survive. A very long time ago, biologists found that animals and plants were distributed in zones and that a form never went beyond its zone, whose boundaries were approximately the isothe mals.* That is, forms spread east and west, but not north and south. It was soon found that each was so fitted to its zone by its own physical characters, that it could not go out without fatal results, omitting, of course, forms which are able to migrate annually to escape seasonal extremes.

*Agassiz* long ago noticed that the type of man which inhabited any one of the zoölogical zones was entirely different from those in the other zones. He knew that each type was thus fitted to reside in his own locality and unable to acclimatize elsewhere, but he never accepted *Darwin's* discovery of the plasticity of species, never understood any of the basic laws of evolution, and

* "Smithsonian Report," 1891.

could not account for man's presence in these zones. He got over the difficulty by the very absurd assumption that there was a separate creation of man in each zoölogical zone—an *Adam* and *Eve* for every race, negroes, Asiatics, Americans, Europeans, etc. We now know that man and other species resemble glaciers in their plasticity, for though apparently hard, rigid and unchangeable, yet they are molded like clay into new forms by very slow migrations or changes in environment, a process extending over immense ages and really resulting in a new type adjusted to the new climate and unable to return to the ancestral home.

We can explain this best by taking up racial characters, one by one, and showing why they are beneficial in one place and fatal in another. For instance, the shape and size of the nose and position of the nostrils are now fairly well proved to be results of selection of the fittest variations. In the tropics where the air is hot and therefore rarefied, so that more of it is necessary, it is essential that there should be no impediments to the air currents. The nostrils are therefore open and wide and the nose very flat. Such a nose is fatal in cold countries, as it permits masses of cold air to flood the air passages and irritate the lining membrane. In cold places it is necessary that the nose should have much warming surface, and the nostrils are slender slits to admit the air in ribbon-shaped streams easily warmed. The air, being cold, is concentrated, and less of it is needed than in the tropics. Hence, there is a selection of the slender nosed types in the North. The nasal index or width of nose divided by the length, gradually increases as we go to hotter countries, where we find some races with index much greater than 1,000, *i.e.*, width greater than length. It is now many years since it was first pointed out that the open tropical nostril was one reason for so much pulmonary trouble of negroes out of the tropics.

In like manner a small slender body with weak muscles is best for the tropics, as it is far easier to keep cool than a huge or fat body so necessary for warmth in cold climates. So we see selection working in this line, but the survival of small men in the tropics as the most fit is not noted until we compare them with our own big men. When we organized the Havana police

force we had to lower the standard, as few native Cubans would have been accepted. In the Philippines, the native municipal police, are tiny fellows, four of whom are needed to arrest a white man. In Jamaica it is stated that more than half the men who volunteered for the Boer war, were rejected as physically below the standard for militia. Likewise, as we go south in Europe, the stature gradually diminishes from the Scotch to the little Mediterranean folk.

After the declaration of the Spanish war the writer was engaged in the physical examination of the volunteers of a Southern State, and was painfully impressed by the frailness of the recruits—men who were wiry, able to live in swamps, and resist the heat, but who were nevertheless poor specimens of the physical man. In marked contrast there were the big-bodied men of the Montana, Nebraska, Dakota, Minnesota, and Colorado regiments, compared to whom the Malays are pygmies. It reminds one quite forcibly of the astonishment of the Roman soldiers at the gigantic size of the Northern tribesmen. Big men, as a rule, with a few notable exceptions, have proved to be unsuited for tropical climates. It is a well-known fact that these beefy types do not last in India like the undersized campaigners such as *Lord Roberts*. Explorers like *Livingston*, *Stanley* and *Johnston* are not big men, and some of them are below par physically. Quite a number of American officers who were of great musculature have been seriously damaged by Philippine service, while little men stand it well, as a rule. There are a few tall tropical races to be sure, but they are slender—never beefy. It is no wonder, then, that the heavy, big men of the North should die out when they try to colonize in the tropics, for they cannot become smaller, which is the only possible way for them to be adjusted to the climate. *Dr. W. Hartigan* has gone into this subject quite extensively,* and he emphasizes the fact that big men are out of place.

### USES OF PIGMENTATION

In no character is natural selection so evidently at work as in the amount of pigmentation of the outer epithelial structures,

* *Journal of Tropical Medicine*, January 15, 1906.

skin and hair. Color has long been used as a means of classifying man as it is so evident. As soon as we discovered that it was an advantage we began searching for that benefit. At first it was thought to be an assistance in radiating heat in the tropics and conserving it in cold countries by the physical law that dark, hot bodies radiate more quickly to cooler bodies than do bright, hot ones. The water in a black tea kettle will cool off far sooner than that in the bright teapot. Hence, blondness enabled men in the North to save heat and to keep warm, but was a disadvantage in the tropics, as it kept men too warm, even feverish, and many an observer has given this as the reason why white men in the tropics may have a temperature above normal. As this injures nerve tissue it is only a question of time when exhaustion and collapse occurs. There is much truth in this theory, and we do know that the negro in the North has much greater difficulty in keeping warm than the white man. Not only does he require more clothing, and lives in houses which are stifling to us, but he avoids outdoor labor as much as possible in winter, inclining to house labor for warmth. When he does go out he is more easily overcome by the cold and suffers dreadfully from frost bite. This law of radiation is undoubtedly one reason for the evolution of blackness in tropical animals and whiteness in the North, for nearly all black animals are in the tropics and white ones in cold places.

Radiation must not be confounded with absorption. Cool, dark bodies likewise absorb heat from hotter sources, much easier than cool, light bodies. The tea kettle heats up on the stove more quickly than a bright teapot. Likewise black clothing is warmest in the sun. But this law is of little effect in evolution because the dark tropical animals are mostly nocturnal and, therefore, are at no disadvantage.

A great deal of extra heat in our bodies in the tropics is no doubt due to the greater difficulty of disposing of it. We radiate but little because surrounding objects are nearly as warm as we are. At home, evaporation of perspiration carries off immense quantities by reason of the fact that to change a pound of water to vapor requires 540 times as much heat as to raise a pound of water one degree C. In the dry Western plains this evaporation

entirely prevents the classical sunstroke. In the tropics evaporation is at a minimum when the air is saturated and the perspiration pours off. This is the reason for the tendency to bathe so often. It is a curious thing that a cold bath checks heat conduction to the surface, because it drives the blood from the surface. Hence, the English in India find that tepid baths, which dilate the superficial capillaries, are really more cooling. Indeed, they are preferable for other reasons, as cold baths are too stimulating to the jaded nervous system which needs rest and recuperation.

Sexual selection may modify man's coloration as it certainly does in case of birds as first noted by *Darwin*, though his explanation is not wholly accepted. Where the healthiest and best are of a certain complexion, that color will be most attractive to each sex, and selection be along that line intensifying it. This may be the reason for the intensifications and unifications we see in long settled places, as in Africa and Asia, but it is only a modifying element after all. I have observed this sexual selection among Maryland negroes who ridicule the half-breeds as something unnatural, and pride themselves on purity of blood. Hence, in all races there is a tendency to marry their kind.

Haytian negroes have long shown this intense hatred for half-breeds whom they have excluded from offices and discriminated against in many ways. So that the Island is nearly pure blooded negro already. Hindus, Japanese, Chinese—indeed, all races have an antipathy for their half-breeds, and in Japan and India they are practically excluded from native society.

*Von Schmaedel* was the first to describe the real reason for the evolution of skin pigmentation. In a paper read before the Munich Anthropological Society, about 1894, he showed that it exists because it excludes the dangerous actinic rays of light—those of short wave length, the violet, indigo, blue and ultra violet rays. The non-actinic rays at the other end of the spectrum, green, yellow, orange and red, are more or less harmless. Skin color is then an opaque armor. *Dr. R. W. Felkin* was the first to call attention to this fact in English journals.* A full technical proof of *Von Schmaedel's* theory can be found in the

* *Journal of Tropical Medicine*, September, 1900.

book which the author devoted to this topic.* It may be consulted for the details of the proof but it is sufficient here to state that in every part of the world—hot or cold—the native is pigmented in accordance with the maximum intensity of the light to which he is exposed. The Eskimo is very dark for protection from the snow glare and the negro is black for protection from the tropic sun. Mediterraneans are brown, but the people of Northwestern Europe, where the cloudiness is at a maximum, are the only real blonds in the world. It has been proved that white ants are killed if they are exposed to excessive light, and the same result follows in the case of white men. This one fact alone will fully account for the evolution of the blond Aryan of Europe and his gradual disappearance whenever he migrated far to the South.

### ELIMINATION OF MIGRANTS

Of course it takes time for the unsuited to disappear, and during the process we see vastly different types inhabiting the same place as though there was no law, but the facts merely show intrusion of migrants who are in process of selection or extinction. It must be kept in mind that all the evidence points to Scandinavia, and perhaps Southern Norway, as the place where blondness arose, as it is the only place where there is sufficient coldness combined with cloudiness, and at the present time the center of blondness is still there.

*Bouchereau,*† in a study of the people of the central plateau of France, shows that the blonds are losing ground, being more subject to certain fatal diseases, tuberculosis especially, and that the brunet types are gaining ground. This is to be expected, since we know that the ancient Celts of this region were very blond; the modern process is only a continuation of that which has always been going on in these places. Not only have the blond Celts disappeared in the South but so have the later blond Franks. Similar investigations as far north as England show the same slow elimination of the blonds whose ancestors have wandered there from Scandinavia. Only in the North, in Scot-

* "The Effects of Tropical Light on White Men," Rebman Company, New York and London.

† *Anthropologie*, Paris, 1900.

land and northern Ireland do the blonds seem permanently established.

*Livi*, in his anthropological investigations in Italy, finds that in places over 401 meters above sea level the lighter types predominate, but below that level the brunets are more numerous. This phenomenon has been noted so often that it has almost become an anthropological axiom that people of cloudy, mountainous regions are distinctly blonder than those in the surrounding sunny plains.

*Prof. G. Sergi*, Professor of Anthropology in the University of Rome, has fully discussed the numerous theories accounting for the blonds of North Africa, in his book on "The Mediterranean Race." Briefly it might be said that though there is evidence of repeated invasions of Northern Africa by types of Europeans, blonder than the Berber and Egyptian, yet there is no evidence that any of these have survived. The earliest wave into Egypt was not far from 2,000 B.C.—perhaps a forerunner of the waves in Greece a few centuries later. The present "blonds" are of the physical type of Berber in every other way, with no evidence of crossment, and moreover they are not real blonds at all, for their skins are heavily pigmented in spite of some lightening of the hair and beard to a chestnut or reddish color. It is merely the contrast to the surrounding types with black hair and beard which has arrested attention. Now *Sergi* brings out the interesting fact that these "blonds" live mostly in the valleys of the northern slopes of the Atlas chain at considerable altitudes, even near regions of snow, where it is cold and not so brilliantly lighted as in the Southern valleys where few are found, and, as *Sergi* states, there is no doubt that they arose *in situ* from the survival of such variations. From this center they percolate downward to the seacoast in all directions, being less and less numerous the lower and further away they are studied—though in no case do they amount to more than ten per cent. These curious people, then, offer no obstacle for explanation, but are clear illustrations of the law of diminishing pigmentation with diminishing light. *Hartman* (quoted by *Sergi*) says the real Teutonic blond does not now exist in Africa—they are reddish brown or ash color. The Amorites or sons of Anak were mountaineers of great stature

and blonder than the plainsmen. According to *Fishberg, Luscham* states that there were many blonds in ancient Palestine and Syria, but we can well assume that they were of these red or Esau types. Even in Borneo the Punans who dwell in the forests are much lighter than those on the coastal plains, and the same law applies to the forest tribes of Central Africa and the Philippines. *Sergi* mentions many instances of blond Southern men in ancient times, though he does not seem to appreciate the fact that they are evidently immigrants from the North or their immediate ancestors were. For instance, in 1700 B.C., the mother of *Amenhotep IV* was a foreign blond with blue eyes and rosy skin. This probably accounts for his intelligence, too, by the way. In 1400 B.C. there was quite an invasion from the West of blond nomads with blue eyes and fair hair. Perhaps these were Berbers from the Atlas mountains, like the present light types there, but it is more likely that they were advance waves of that great flood which came from the North a few centuries later.

### DISAPPEARANCE OF HYBRIDS

The disappearance of half-breeds is an illustration of the damage done by lack of adjustment to the climate. The mulatto, for instance, has characters half way between those of the parent type; his skin is too light for him to live in the tropics, and if he lives in the North his nostrils are too open for the cold air. Indeed, there is no climate on earth suitable for him, and he is damaged wherever he lives. He is "the man without a country."

The evidence as to the mulatto is universally to the effect that he shows less resistance to disease than either parent, and also does not stand surgical operations well. It is generally assumed that the mixture produces a weak tissue, but it is more logical to assume that his tissues are the same as the parental, but that they are being constantly bombarded by adversities from which each parent is protected. At any rate, mulatto families constantly tend to extinction by small birth rate and huge death rate, and in spite of the enormous production of such types in America they do not constitute nearly as high a percentage of

our colored population as they should if they were not unfit for the environment.

Our records for 8,000 years show that the negro cannot mix with the whites, and we can safely predict that he never will. The mulatto invariably dies out unless new black blood is infused into the mixed race, and though some families survive a few generations, as a rule there is absolute extinction of such feeble offspring. The Griquas were half-breeds from Dutch Boers and Hottentots, numerous at the Cape at the end of the 18th century, but practically extinct in 1825. Dutch half-breeds in Java and Sumatra are sterile in the third generation. In India the half-breeds—Eurasians—are feeble and perish. Mulattoes from French or Spanish fathers last the longest, but eventually die out. The hideous Huns who overran Europe and married native European women have not left a trace—all their half-breeds gradually dying out. Half-breeds between Chinese and Japanese are not permanent, and those between Japanese and the Ainus of Yezzo are also sterile as a rule.

The Spanish mestizo race in the Philippines, is a hybrid destined to early extinction. It is now the ruling race because it is more intelligent than the native Malay, but it is unfit for the climate. Being feeble, the mestizo cannot work like the native and, therefore, cannot exercise sufficiently to keep healthy. He has not sufficient intelligence to compete with whites and occupies a subordinate place in trade and all the professions. As a rule mestizo families date back not further than a Spanish grandfather—the older families seem to have perished already. It takes little prophesy, then, to foretell their early extinction. If they could have built up a government, it would have perished with them, and the Islands relapse into savagery in the hands of the native Malay, as Egypt relapsed into chaos every time its invading civilizers perished.

Permanent hybrid races may arise from the union of two closely similar races because the mixed types are so slightly out of adjustment to either climate that they can furnish fit variations to survive, hence, such hybrids as are found in many European localities are more or less permanent, but there is no exception to the rule of absolute extinction of hybrids between widely

differing races. Volumes might be written about the pitiful frailness and feebleness of these races, and the awful physical degeneration which comes from living their unnatural lives. It is a rich field in which to study the ordinary stigmata of degeneration so frequent in the mestizo and so much rarer in the Malay.

It is said that *Aguinaldo* and all his cabinet, with few exceptions, were Chinese mestizos, and this illustrates the greater fitness of Chinese than Spaniard for this blending. Both Chinese and Spaniard have black hair and an olive complexion, so that they are very nearly equally fitted for the climate. Moreover, the Chinese and Malays are of the same broad-headed, Asiatic type, and in accordance with law, their half-breeds must be the more vigorous of the two. The Malay is merely an earlier Asiatic wave than the Chinese, though coming from the mainland through Sumatra and Borneo. There is the same blood relation of Malay to Chinese as there is of Berber to Italian.

It is known that the longer a race has been under civilization where its variations can survive, the greater are the varieties of brain, so different from the uniformity of brain in a savage race. Hence, there is in China every type from the coolie, so stupid as to be merely a beast of burden, to some of the brainiest men in the world. Some Chinese immigrants in the Philippines are highly intelligent, and transmit this to their half-breed offspring. The term Chinese mestizo conveys no idea as to the amount of intelligence of the man, for there can be every type, but these facts show why there are so many able men of this mixture. The Chinese are a Northern race and really unfit for this Southern climate, and their half-breeds are sure to die out in time, but it will, of course, be a long time, and they do not show nearly so much of the degeneration found among Spanish mestizos.

There is a current idea that the Chinese can upset natural law and be an exception in the zoölogical world—independent of climate—or as one man says, they can flourish from Siberia to Singapore, but the very lightness of their skins needed in cold places is a distinct disadvantage in the tropics where they must hide from the light like white ants. They huddle in dark houses, carefully exclude the glare, hide in midday and are nearly wholly

devoted to house employments. Though they do manage truck farms, they leave tropical farming to the natives, just as intruders do all the world over; indeed, the Chinese do not compete with any labor which was necessary in pre-Spanish days. All trades imported since that time, watchmaking, carpentry, cabinet maker, machinist, etc., must have imported workmen, as the Malay is unable to grasp them. Malays have learned to be machinists, blacksmiths, turners, carpenters, painters, but the good ones are very few and they are generally half-breeds. Hence, the cry in the Islands is, and always has been, for imported laborers to do the work of imported trades beyond the abilities of Malays. But to say that this imported labor is to push the native to the wall is utter nonsense as it is unnatural—the native will remain what he always has been—farmer and house builder.

There is an apparent exception to the rule that Chinese hide from the light, and that is in the coolies who are porters, drivers, etc., but they mostly come from the Southern subtropical parts of China, where selection has made them much darker than the Northern types.

Chinese rarely settle except where there is a safe government to protect them. They are typical commensal organisms—never pioneers, never raise civilization, never establish government—only appear when there is a higher race to give them protection. They were very numerous in the Philippines over two centuries ago—indeed, in 1696, a law was passed giving twenty lashes and two months' confinement to Chinese mestizos who failed "to go to church and act according to the established customs of the village." Surely they should number more than 500,000 if they were adjusted to the climate. They must be less prolific than the native type, and though they will constantly die out, they will be replaced, and we will have them to deal with forever, just as we will have intruding full-blood Chinamen in America demanding protection. It is said that there are only 75,000 Spanish mestizos in spite of several centuries of intermixture. They must die out more quickly than the Chinese half-caste. Whenever I have attended a "society" event among natives, I have made as careful examination as possible, and was much interested in the fact that scarcely any Malays were present—a few

to be sure, but the vast majority of guests were mixed bloods. The real people of the Islands, who are "ancestors" of the future populations, were the uninvited hoi-polloi, pure-blood Malays, squatting in the streets looking into the house from the soil where they are at home.

One of the most remarkable letters ever written was the one sent to *Baron Kaneko*, of Japan, by *Herbert Spencer*, and as it dealt in great part with the question of half-breeds, some of it is here quoted:

"To your remaining question respecting the intermarriage of foreigners and Japanese, which you say is 'now very much agitated among our scholars and politicians,' and which you say is 'one of the most difficult problems,' my reply is that, as rationally answered, there is no difficulty at all. It should be positively forbidden. It is not at root a question of social philosophy. It is at root a question of biology. There is abundant proof, alike furnished by the intermarriage of human races and by the interbreeding of animals, that when the varieties mingled diverge beyond a certain slight degree the result is inevitably a bad one in the long run. I have myself been in the habit of looking at the evidence bearing on this matter for many years past, and my conviction is based on numerous facts derived from numerous sources. This conviction I have within the last half-hour verified, for I happen to be staying in the country with a gentleman who is well known and has much experience respecting the interbreeding of cattle; and he has just, on inquiry, fully confirmed my belief that when, say of the different varieties of sheep, there is an interbreeding of those which are widely unlike, the result, especially in the second generation, is a bad one—there arise an incalculable mixture of traits, and what may be called a chaotic constitution. And the same thing happens among human beings—the Eurasians in India, the half-breeds in America, show this. The physiological basis of this experience appears to be that any one variety of creatures, in course of many generations, acquires a certain constitutional adaption to its particular form of life, and every other variety similarly acquires its own special adaptation. The consequence is that, if you mix the constitution of two widely divergent varieties which have severally become adapted to widely divergent modes of life, you get a constitution which is adapted to the mode of life of neither—a

constitution which will not work properly, because it is not fitted for any set of conditions whatever. By all means, therefore, peremptorily interdict marriages of Japanese with foreigners.

"I have for the reason indicated entirely approved of the regulations which have been established in America for restraining the Chinese immigration, and had I the power I would restrict them to the smallest possible amount, my reasons for this decision being that one of two things must happen. If the Chinese are allowed to settle extensively in America, they must either, if they remain unmixed, form a subject race standing in the position, if not slaves, yet of a class approaching to slaves; or if they mix they must form a bad hybrid. In either case, supposing the immigration to be large, immense social mischief must arise, and eventually social disorganization. The same thing will happen if there should be any considerable mixture of European or American races with the Japanese.

"You see, therefore, that my advice is strongly conservative in all directions, and I end by saying as I began—keep other races at arm's length as much as possible."

## COLONIZATION IN ZONES

Nothing could be clearer, then, that residence in any climate is made safe by skin pigmentation in accordance with the maximum amount of sunlight at any season, and it proves the impossibility of colonizing out of the proper zone. Brown and black people who now live in light tropical countries will always live there. We cannot exterminate them. *Mr. Michael A. Lane* has written a book* the sole purpose of which is to prove a false theory that "through the force of progress itself, these (lower) races must be totally eliminated from the earth." This cannot be, but they will be forever used by white men to their mutual benefit, not as slaves, or serfs, or domestic animals, but as junior partners with little voice in the management of the firm.

Colonization, to be successful, must be in a climate similar to the ancestral one. The colony is an offspring of the parent, and can no more survive in a markedly different environment

* "The Level of Social Motion."

than can brook trout survive in warm water. If the difference is slight there might be adjustment by survival of suitable variations, but that means a change of type—the process which has resulted in the great differences now existing. To live normally in the Philippines, a man should be like a Malay or Negritto; to live in the far North, an Eskimo, and in Central Africa, a negro. Unless he resembles the native he is subjected to damage of some kind and gradual deterioration sets in, increasing from generation to generation until the line dies out.

It is an exploded theory, then, that man is able to become acclimatized, that is, inured or adapted to a climate different from what is natural, enabling him to resist climatic diseases better and better, the longer he resides there. It is no more true than that a man by continuous residence in the Arctics is less easily frozen or starved to death.* Indeed, we may put the matter stronger still, and confidently assert, that after some years' residence in the tropics a white man is less able to resist disease than when he went there, and if he would expose himself to the causes of sickness, he would succumb more quickly than ever. England, for several generations, has been sending home from India a constant stream of "acclimated" wrecks, to recuperate, if possible, but if too far gone, to pass the remnant of existence as comfortably as possible. We are beginning to do the same thing.

If the Medical Department of the Army had known, in 1898, the real absurdity of acclimatization, troops would never have been sent to Tampa and other hot Southern places to get accustomed to the heat. Officers testify that every day at these places weakened the men for their coming struggle instead of strengthening them. They started out enfeebled, so that they collapsed within a few weeks—the most complete destruction of any army we ever had—in effect the same as the annihilation

* The following is an editorial in the *Journal of the American Medical Association* for May 20, 1899: "*The Indian Medical Record* does not believe in the acclimatization of the white race in the tropics. It holds that the lowered death rate in hot countries is not an evidence to the contrary, but rather that it shows that it is only after elaborate precautions have been learned, that it exists. It is rather a proof of the inability of the white race to colonize, that is, to labor and undergo constant exposure in the tropics. It is absurd to say, it claims, that a reduced death rate directly due to the avoidance of every possible exposure is an evidence that such exposure can be endured."

of *Hood's* Army by *General Thomas* in December, 1864. They should have been assembled where they would have kept strong. There were scarcely a dozen men in the 75,000,000 of our people, who knew anything about the subject. Anthropology is a new thing, and its lessons are now being learned by sad experience.

*Karl Penka* believes that "the influence of climate has exterminated the Aryan race in India, Persia, Greece, Italy, Spain, France and Southern Germany, the Aryan speech alone being left as the permanent evidence of early Aryan conquest."

"The fair race holds the Baltic lands, the brown race the shores of the Mediterranean, and black race holds the tropics." "As a rule the fair races succeed only in the temperate zones, and the dark races only in the tropical and subtropical lands." "As a rule it is found that Northern races die out if transplanted to the South, and the Southern races become extinct in the North." "Intrusive conquest or colonization has left little or no trace." *Isaac Taylor*, from whom these facts are quoted, states that the extinction of such colonies is due to four causes: sterility, infantile mortality, tendency of climate to enfeeble the constitution so as to prevent recovery from ordinary diseases, and liability to special diseases such as pulmonary affections in the negroes transplanted to cool lands, and malaria in whites transplanted to the tropics.

The instrument for the extinction of men in unnatural climates is degeneration in its modern sense, and it is brought about in the tropics by nervous exhaustion. In his great work on "Degeneration in the Human Species," published nearly fifty years ago, *Morel* refers to the evil effects of the climate in causing degeneration of the families of the Europeans colonizing in the tropics. Throughout all works on degeneration we find that the almost sole factor at work is nervous exhaustion which unfits the body for procreation—and the causes of the exhaustion are legion—overwork, vicious conduct, and the thousands of things which lower vitality. There is produced a physique unfitted for procreation by reason of lowered vitality, and this is the kind of parents who produce the greatest number of degenerate offspring in any climate. In the tropics, those children are still further unable to resist the adverse environment. Not only

are they congenitally feeble or degenerate, but they have no chance to improve. "In India the children of Europeans fade away unless they are sent home before they are ten years old."* In Manila there are no healthy white children who have been there continuously from birth. I was credibly informed by ladies who had lived there a long time, that after a child is four years old and until it is twenty-two it had a real struggle for existence, and gives parents constant trouble. It is said to be "getting adjusted," but it is probable that by the age of twenty-two all the weaker ones are killed off and there is a survival of the fittest. A pitiful story is told of an English boy of seven or eight, raised in Manila and taken to England to his mother's home. The first time he saw his rosy little cousins with their bursting cheeks, he turned to his mother and exclaimed: "Why, mamma, they have all painted their faces." The poor child had never seen a healthy white man's complexion in his life. Women who have lived in English boarding schools devoted to the education of children sent home from India, tell even more pitiful tales of the wan and yellow appearance of the wives and children as they arrive from the tropics. If the children are not sent home, but survive and marry, their offsprings are worse off still, and *Taylor* says that "there is in India no third generation of pure English blood."

### ILLUSTRATIONS OF MISPLACEMENT

The following examples are taken from *Taylor's* "Origin of the Aryans," pages 199 to 202:

"In Jamaica both the whites and the mulattoes become sterile, while the negroes are prolific; and hence the type is lapsing into the pure negro, as in Hayti. The European element is dying out, not only through sterility, but by the liability to tropical diseases, which are not so fatal to the natives of the tropical regions. The English race is doomed to disappear, leaving behind it nothing but a corrupt English jargon as an evidence of its former dominance.

"Negroes succeed in the West Indies, and the Gulf States, but die out in Canada and New England. The English race

* Taylor.

succeeds in the Northern States and Australia, but fails in India and the tropics. The Dutch fail to naturalize themselves in Java and Sumatra; and in the third generation even the Malay half-breeds become sterile. The Dutch have left no descendants in Ceylon, but at the cape they have left large families, possessing great stature and physical power. The French succeeded in Canada and Mauritius. In the West Indies and New Orleans they can exist, but they do not increase in numbers. In Algiers emigrants from the Southern departments succeed. The Spaniards, a South European race, together with Maltese and Jews, thrive better in Algiers than any other immigrants from Europe.

"In Egypt no foreign race has ever naturalized itself. The Egyptian Fellah still exhibits the precise type seen upon the monuments. The Ptolemai Greeks have left no trace, the Mamelukes were unable to propagate their race, and the Albians and Turks are mostly childless, and there is great mortality among the negroes.

"Hindustan is Aryan in speech, but not in race. There are in India some 140,000,000 of people who speak Aryan languages, but the actual descendants of the Aryan invaders are very few. They are represented by certain Rajput families, and by the Brahmins of Benares and some other cities of the Ganges. [It is now believed that the Aryans died out ages ago.]

"At St. Petersburg the deaths exceed the births, and in North Russia the Slavonic-speaking population only maintains itself owing to the blood being mainly Finnic or Samoyed.

"The Gothic blood has nearly died out in Spain, the Lombard in Italy, and the Vandal in Northern Africa. Southern Germany was originally Celtic or Ligurian. It was Teutonized in speech by German invaders; . . . but the type of the conquerors has now disappeared, and the prehistoric type has reasserted itself, except among the nobles, who are of the Teutonic type. Plainly, the fair Northern race has been unable to maintain itself, and has left little more than its Teutonic speech as an evidence of conquest.

"On the other hand, feeble indigenous races are unable to maintain themselves in the presence of the higher civilization of an invading race which happens to be suited to the environment.

"In the United States the Red Indians are rapidly disappearing before the whites [except where kept alive as paupers], while in Mexico the Aztec race shows a continually increasing pre-

ponderance over the descendants of the Spanish conqueror. But the Tasmanians, Australians, Maoris, Fijians, and Sandwich Islanders have disappeared or are destined to disappear. The Arabs in Algeria are withdrawing to the Sahara, but the Berbers prosper and increase. The French conquest has resulted in one native race being supplanted by another, just as in the West Indies the European occupation has caused the Carib tribes to disappear before the more vigorous negro race which has been introduced."

In Hawaii the general trend of observation is to the effect that the aborigines are dying out as unfitted for survival in the new civilized environment, the half-breeds are even less hardy and short-lived, while it is entirely too soon to say anything of the whites born there, as the infusion of new blood from the United States is so constant that there are few illustrations of native whites in the third generation. We can confidently predict that without the infusion of new vigorous blood from the United States the native whites will become extinct. Even now many families are compelled to leave after a few years, on account of bad health.

As a rule, Northern people who go to Cuba, escape disease the first summer while they retain their strength and vitality; but the natives all advise such newcomers to go away during the second summer, which is considered very fatal, for by that time the strong active man has become weak and nonresisting and not acclimatized.

### OPINIONS OF OBSERVERS

As a result of English experience, *Prof. J. Lane Notter*, Netley Army Medical School, states that "a prolonged residence in a hot climate doubtless deteriorates the system." Again he says that the great mortality of typhoid in the tropics is because "there is an increased activity in any acute fever due to the diminished resisting power of the individual." "All diseases, however trivial elsewhere, become serious in the tropics," and "the energy of the Anglo-Saxon who has been long resident in the tropics suffers." *Lord Roberts* noticed the quicker onset

of effects of age on the private soldier, and we have found that tuberculosis is rapidly fatal to white men in the tropics.

We have long known that the adult natives of the West Indies, creoles, etc., did not contract yellow fever, and we believed them to have become immune through acclimatization; but even this is an error, for our yellow fever commission many years ago proved that every one of these "acclimated" natives had had yellow fever in infancy, and were immune from that reason and not from acclimatization. There has been a woeful mortality in New Orleans creole families from yellow fever in spite of nearly two hundred years of "acclimatization." White residents in the tropics hold to the conviction almost universally that it is no place for whites, and though they insist upon going to a temperate zone for six months every three years, yet even that does not prevent the slow but inevitable deterioration in health.*

Wherever we turn we will find facts which annihilate all our former conceptions of acclimatization, in spite of the fact that in the tropical and subtropical regions of the world there are said to be 10,000,000 of white men living and degenerating. There is even an outcry about South Africa and Australia, which we rather look upon as permanent Anglo-Saxon homes. The London *United Service Gazette* says: "It is an undoubted fact that the Australasian of two generations is ever on the verge of decadence if new blood is not forthcoming from the mother country. The Anglo-Indian, too, born in that great dependency, though of pure British blood, is very inferior in that energy and virility which mark the Anglo-Saxon race as we know it at home. In South Africa, where at least a better climate is attainable, a stationary population, unfed from home, will certainly degenerate."

Ethnologists, philologists and archæologists are pretty well

* Kipling, in speaking of his heroine in "William the Conqueror," says: "She stayed down three hot weathers, as her brother was in debt and could not afford the expense of her keep at even a cheap hill station. Therefore, her face was as white as bone." In "The Tomb of His Ancestors," he says: "All India is full of neglected graves that date from the beginning of the eighteenth century—tombs of forgotten colonels of corps long since disbanded; mates of East Indiamen who went on shooting expeditions and never came back; factors, agents, writers, and ensigns of the Honorable, the East India Company, by the hundreds, and thousands and tens of thousands. The English folk forgot quickly."

agreed as to the fact that existing races and even nations have undergone evolution in climates similar to those in which they now live, and that in spite of being conquered, enslaved, compelled to learn new languages and submit to new civilizations, aborigines may survive their lords and masters, so that in some parts of Europe, such as the French peasants of the Dordogne, the natives are the proved direct pure-blooded descendants of the original inhabitants who have evolved from lower types through untold ages, just where we find them now. Colonizations spread speech, trade and civilization, but not races if they meet adverse climate. Migration resembles glaciers, but speech and civilization are bowlders left in the "terminal moraine" as the glacier melts.

Of the numerous articles which have been written on the subject of acclimatization, perhaps the best is that by *Prof. Wm. Z. Ripley* in his "Races of Europe." Its great value consists not only in his high scientific attainments, being our most brilliant anthropologist, but from the fact that he wrote the article before 1896, or long before all such discussion could possibly be accused of having political bias. He says: "To urge the emigration of women, children or of any save those in the most robust health to the tropics, may not be murder in the first degree, but it should be classed, to put mildly, as incitement to it." *Doctor Semeleder*, of Cordoba, Vera Cruz, says "that white men cannot become acclimatized in the tropics at a less elevation than 3,000 feet, which is a moderate climate." There is a biological law that every 250 feet elevation is equivalent to an advance of one degree of latitude as far as the flora and fauna are concerned. *Dr. G. Archdall Reid** also shows that white men can never colonize in malarial parts of the tropics, the change to a new environment being too rapid. The native immunity to malaria is a result of natural selection and the death of the susceptible during untold thousands of years in a gradually changing environment. *Doctor Beyfuss* in a very temperate article doubts whether life in the tropics is possible for white men even if we exterminate malaria. *Mr. Benjamin Kidd* is the chief exponent among laymen of the truths of nonacclimatization, and seems to

* "The Present Evolution of Man"

be the pet enemy of all the expansionists-at-any-price. He also shows how evolution in cold climates has produced a far different creature than in the tropics, from which places white men are forever barred as colonists.

*Patrick Manson*, "Tropical Diseases," says (page 81): The most fatal form of malaria, hemoglobinuric fever (twenty-five to thirty per cent. fatal) never appears in newcomers, but only after a year or two of residence with attacks of benign forms. Rarely it appears after two or three months' residence. The third year is the most susceptible. Some writers, though, declare that there is neither acclimatization or increase of susceptibility by residence (page 121). Long residence makes one less liable to severe remittants but more liable to mild attacks of malaria and to the pernicious dynamic type and hemoglobinuria. He gets chills from causes which do not affect new arrivals (chronic malaria). Acclimatization is only caring for our health (page 226). There is an acquired immunity to typhoid by long residence, and (page 235) an acquired immunity to siriasis or heat stroke, but probably this is due to greater wisdom in escaping the damage (page 354). Sprue (tropical diarrhea) is a disease of old residents. *C. Firket** asserts that the longer whites remain in the tropics the greater is the mortality from malaria, instead of a lessened rate, as we would suppose, if immunity or acclimatization were possible. *Wm. J. Cruikshank*, in an article on "Dysentery," in *National Medical Review*, March, 1901, shows that there is no acclimatization to this disease, but on the contrary the longer the residence the more predisposed are whites to contract it, that it is far worse in soldiers of continuous residence than in those who come and go—and states that writers in India concur in this experience.†

* *Semaine Medicale*, Paris, July 4. See *Journal of the American Medical Association*, August 4, 1900.

† Speaking of South Africa, the late Mary H. Kingsley said: "Yet remember, before you elect to cast your lot in with the West Coasters that 85 per cent. of them die of fever, or return home with their health permanently wrecked. Also remember there is no getting acclimatized to the Coast. There are, it is true, a few men out there who, although they have been resident in West Africa for years, have never had fever, but you can count them upon the fingers of one hand. There is another class who have been out for twelve months at a time, and have not had a touch of fever; these you want the fingers of your two hands to count, but no more. By far the largest class is the third, which is made up of those who have a slight dose of fever once

Spain long kept possession of Cuba simply because of the degeneration of the Cubans, who were unable to fight for freedom. Many of them allowed themselves to be herded like cattle —the reconcentrados. Imagine men in cold New England being reconcentrados in 1775. The intelligent upper class is probably smaller in Cuba than anywhere in Europe or the United States, and the degraded lower classes larger in numbers.

As before explained, anthropologists once believed that populations spread in cataclysmic floods; now we are explaining ethnologic features of populations by the present slowly acting causes of race expansion by individuals, military expeditions being "merely its superficial manifestations."* It seems as though these streams of men going individually to new homes are like certain rivers which flow on, only to disappear in the desert. For in spite of the ceaseless spreading, conquering and being conquered, races of man now inhabit climates essentially the same as they have for thousands of years. In some regions we know them to be similar to the fossil remains. Even the races driven westward in England in historic times are already returning.

In the chapters on migrations, there are numerous illustrations of the degeneration of all ancient civilizations, directly due to the fact that they have resulted from the rapid immigration of brainy races into a country occupied by inferior men who have then been annihilated by the climate, leaving the civilization in the hands of the stupid autochthons, serfs, or lower classes. There are few or no traces left of the men who developed the civilizations of Chaldea, Persia, India, Egypt, Greece and Rome. The moderns are not degenerate—they are strictly normal descendants of ancient serfs. Degenerate people do not survive;

a fortnight, and some day, apparently for no extra reason, get a heavy dose and die of it. A very considerable class is the fourth—those who die within a fortnight to a month of going ashore. The fate of a man depends solely on his power of resisting the so-called malaria, not in his system becoming inured to it. The first class of men that I have cited have some unknown element in their constitutions that render them immune. With the second class the power of resistance is great, and can be renewed from time to time by a spell home in an European climate. In the third class the state is that of cumulative poisoning; in the fourth of acute poisoning." ("Travels in West Africa," pp. 526–7.)

* Ripley.

they become extinct in a few generations according to their unfitness to their new environment.

*G. de Lapouge,** shows the invariable decadence of the dominating minority of intruders in a population and their eventual elimination, and the regaining of power by the lower inferior subjugated elements. *M. Leclerc,* in a paper before the Congress of Ethnography,† shows how the change of environment of conquering races ruins them physically, mentally, and morally and their conditions ruin the conquered.

*Dumont,* in a work on "Depopulation et Civilization," a study of the causes and remedies for French decadence, after showing how all races immigrating to France die out, entirely misses the point that it is due to climatic unfitness and cannot be prevented. It can be nullified by more immigration, as has been the rule since prehistory. The land between the Seine and Loire (seventy-five miles wide between Paris and Orleans) has been called the Mesopotamia of Europe, and like its Asiatic namesake has consumed streams of men for ages. He also shows that the poor aborigines have a higher birth rate than immigrants dwelling in towns and fertile plains. He then shows that various races in a country disappear in the inverse order of their arrival, that is, the latest intruders have the highest death rate.

## NEGRO DECAY

Our own negroes in slavery times were like animals under domestication—fed, clothed, housed, doctored when sick, and kept in health as a matter of dollars and cents. Since emancipation a most intense struggle began in an environment to which they are unfitted physically and mentally. In the last thirty-five years there has been a progressive and appalling increase in consumption, insanity and crime, showing that the deterioration has already begun. There is a large number of congenital defectives among the young, due in great part to parental faults, improper food and clothing, unsanitary houses, and vicious habits. Our negro problem will settle itself in time, for like

* *La Vie et la mort des nations, Int. de Sociologie*, 1894, page 421.
† *New York Evening Post*, about November 1, 1900.

domesticated animals turned loose into an unsuitable environment, they will certainly perish, lasting longest in the hottest climates. *Dr. J. L. M. Curry,* in *Popular Science Monthly,* details the awful savagery already rife in our negro districts, almost as bad as in West Indies, where sixty to seventy-three per cent. of births are illegitimate.

*Doctor Barringer* says,* "all things point to the fact that the negro, as a race, is rapidly reverting to barbarism, with the inordinate criminality and degradation of that State." He and others mention the enormous number of illegitimate births and frightful infection with venereal disease. In the winter charities of Southern cities it not infrequently happens that every recipient is a black† unfit for the struggle for existence.

It is said that nearly all pardons of negro criminals are due to consumption, though this is also an affliction of white criminals. Their death rate from this and other causes has increased from twenty-four per 1,000 in Charleston, S. C., in 1822, to about forty-five per 1,000, some say over fifty per 1,000 in some cities, and is now more than double the white race, whereas in slavery it was less than the white race. "Dirt, disease and the devil" are given as the causes, but this is merely the result of putting savages in a civilized environment—they are savages still—only they talk English and many can read and write. Civilized negroes can only arise in millenniums in the same way we arose, by the brutal method of killing off the stupid of each generation. Their annual birth rate, twenty-six per 1,000, is now slightly more than that of whites, twenty-two per 1,000, and they must decrease. They should have numbered 26,000,000 now instead of 9,000,000; their increase in the last ten years ending in 1900, is said to have been twelve and twenty-four one hundredths per cent., the white increase being twenty-three and ninety-one one hundredths per cent. Negro fathers cannot support their wives and children, hence sixty-two per cent. of all negroes over ten years old are required to work. In the white population, the corresponding per cent. is forty-eight and six-tenths. Also forty and seven-tenths per cent. of female negroes over ten years

* *American Medicine,* August 16, 1902.
† "Race Problems," *McClure's.*

old must work, while only sixteen per cent. of white females.* The negro condition is then like the savage condition in which all must help support the family.

*Wm. Hannibal Thomas*, himself a negro, writes that the negro is still a savage unfit for civilization, that is, unfit to carry it on.† *Doctor Curry*, mentioned before, and *P. B. Barringer*, Chairman Board of Trustees, University of Virginia, are both said to have declared the higher education of the negro impossible, as they have not the brain. *Dr. Searle Harris*,‡ Professor of Medicine, University of Alabama, shows that the continual decadence of our negroes means extinction in time, and *Dr. A. B. Richardson*, Superintendent of the Government Hospital for the Insane, in Washington, D. C., stated that all the superintendents of Southern asylums are unanimous in stating that negro insanity has increased since the war and is constantly increasing.

*Prof. Walter F. Wilcox*, of Cornell University, has analyzed the Negro Problem in the United States,§ and seems to think that the census returns show a steadily decreasing rate of increase and that 25,000,000 is the maximum number of negroes who can live here, and that their proportion to the whites must steadily decrease.

Some parts of our South and West Indies have climatic conditions proper for negroes, and there they have resumed their original savage state—Hayti is an Africa in America, and in Louisiana and Florida there are small bands of tiny negroes almost pygmies, living essentially as their ancestors lived in Central Africa as described by *Stanley*. In Cuba the negro question is far more complex, as the forces are more nearly balanced. The climate is not so markedly different from the native one, as to prevent adjustment and permanent survival, so that if he gets the upper hand as in Hayti a reversion to savagery is possible, and the whites will disappear.

* 1900 Census.
† "The American Negro." Macmillan.
‡ *American Medicine*, September 7, 1901.
§ *Quarterly Journal of Economics*, August, 1905.

## AMERICAN DETERIORATION

The evidence as to deterioration of Northern European types in America is voluminous. Not only do workmen decay earlier than in Europe, but it is shown by *Prof. B. Laquer** that German migrants to America have their lives shortened in spite of less work, less intemperance and better food. Among every 1,000 German-Americans there are 170 between forty and sixty years of age, and 65 above sixty years of age, but in Europe there are 179 and 78, respectively. In the first generation of native born the deterioration is marked, and the type melts away as already explained. The intense nervousness so characteristic of Americans, and due to the stimulation of sunshine, causes undue arterial tension and the subsequent hardening of the arteries is, therefore, much more common in America than in Europe. Indeed *Sir Robert Barr* † states that from this cause Americans are generally old at sixty. It is also said that in the United States one person in every forty-two is a defective, and that we have a higher rate than any other country in the world except Baden, Iceland and the Argentine Republic. The deterioration is more rapid in the South, for practically all of the American Olympic Athletes of 1908 were born north of Mason and Dixon's line.

Now, all this deterioration does not affect the types from Southern Europe to nearly the same extent as those from the North. In the case of tuberculosis, I have subjected the matter to statistics,‡ and in my work of the effects of light there is abundant proof of a similar character. That is, blonds fail to become acclimatized in America.

The process of elimination of the unfit is well under way. *Francis Parkman*, in his History of the Old Régime in Canada, mentions the observation of *La Hontan*, a lieutenant of *Louis XIV's* Army, that few of the women immigrants were brunets. They came from Northern France, which is strongly blond, but they have failed to maintain their numerical supremacy in the

* *New York Medical Record*, May 13, 1905.
† *Journal of the American Medical Association*, February 24, 1906.
‡ *New York Medical Journal*, September 12, 1908.

lighter valley of the St. Lawrence. The same increasing brunetness has long been known in New England, and the blond creoles of Louisiana disappeared generations ago. Blonds have survived in the mountains even as far south as Tennessee, where the rainfall is enormous, and the cloudiness similar to Norway. Whether they are to be permanent is another matter, for it is further south than the northern mountains of Italy, which is the furthest south that blonds have survived. In the American lowlands the blond type is disappearing everywhere, and in Europe, south of forty-five degrees, they likewise disappear from the lowlands. The further south the family resides the sooner is extinction. Already the deterioration is so marked that few athletes come from south of the fortieth parallel of latitude. Of course, we refer to continuous residence in the south, not a residence of two or three winter months, the rest being spent as far north as they can conveniently get. Such migrating families may survive forever. Scientists have called attention to the fact that the flora and fauna north and south of the Mason and Dixon line are so different as to constitute two continents. These sections will always be opposed politically, religiously, and biologically, but mutual interests compel national unity for all time.

It is not surprising, then, that the 1900 census should show that in the preceding decade, the New England population having native-born parents, had decreased by 50,000. This is the nearest statistical proof of the disappearance of the old stock. There is, therefore, abundant reason for the recently expressed fear on the part of *Professor Ripley*, of Harvard, that other races now arriving are submerging those who first came here.

The broad-headed Alpine type of man does not flourish in Europe south of the fortieth parallel of latitude, and the same phenomenon is found here, for this type tends to remain in the northern half of the country. South of that parallel the Mediterranean types are establishing themselves so strongly, it is even feared that through their greater intelligence they will displace the negro from the farms and drive him into servile positions—the only ones he can fill—for he has not sufficient intelligence to compete with any European race.

The first streams of men pouring into Virginia were completely wiped out, but were instantly replaced. There has been an equally deplorable mortality in other places, but the stream from Northwestern Europe still continues to replace the losses. In 1905 we received 40,000 from Germany, 60,000 from Scandinavia and Denmark, 64,000 from England and 52,000 from Ireland. Indeed, the actual number of blonds in the United States may be constantly increasing even if they evaporate in time. One year may bring more into New York harbor than in all the time from Columbus to the Revolution, so that it will be impossible for any type to disappear completely. Scandinavians are coming here directly now, instead of to the British Islands, and their descendants differ in no respects from the descendants of Scotch and Irish immigrants.

Even should the death of the blonder races be much more rapid in the future, it will make no difference in the end. We can look upon Northwestern Europe as the breeding ground of these types of people. Only recently we contemplated nominating for the Presidency the son of a Scandinavian immigrant, and he would, no doubt, be a far better President than some of the degenerated stocks who have been here a few generations longer. Even though these immigrants are the least successful, yet they are infinitely higher than the least successful from the Mediterranean.

There is even a Southern drift as in Europe. The industrial regeneration of the South is mostly due to Northern types, indeed its most prosperous areas are really Northern colonies. In an address before the Canadian Club,* *Prof. Wm. Osler* referred to the Southern drift of Canadians into the United States and remarked that fully 1,000,000 of them were now among us, many in prominent positions in finance and the professions, particularly medicine and theology. They have been successful, industrious and thorough in their work. Of the 651 women nurses in six of the great Eastern hospitals, 196 are Canadians, so that the migration affects both sexes and all classes. He mentions the fact that all vigorous strong nations are in the North, and he draws a picture of the moral, mental and physical conditions

* *British Medical Journal*, 1905.

of the Canadians which is certainly to the disadvantage of the nation to the south, about the same difference as between Scandinavia and Italy. He shows that Canada is a better climate for Aryans than the United States, as it more nearly approximates the proper latitude, but whether the great future nation will be north of the Great Lakes, as he prophesies, is another matter. To be sure, Scandinavia and Hudson Bay are equally far north and should be equally fitted for Scandinavians, but the cold of Hudson Bay does not permit of food production, and the light of its many cloudless days is suited only for Eskimo types or the dark types of the identical climate of Siberia.* Strangely enough, the migration from the British Islands now seems directed to Canada, as though it were instinctive to go where there is more chance for permanent survival, and indeed, most of Canada's immigration is from the mother country.

## THERE CAN BE NO AMERICAN TYPE

The types of future Americans can now be fairly well predicted. It has been generally assumed by unscientific writers, that through intermarriage we are being amalgamated into one uniform type capable of surviving in all our climates. Yet such amalgamation has not occurred in Europe where mixing has been going on for some scores of thousands of years. Nature has been unable to make a type fit to live in every climate from Northern Scotland to Malta, and there is no reason to believe she will be any more successful here where similar climatic differences occur. Indeed, there has been no recognizable change so far. If we disregard speech and dress, no one can distinguish an American of the old stock from a recent immigrant from the ancestral home.

Indeed, it is now being proved by biologists that amalgamation of varieties of any animal or plant is impossible. *De Vries*, the great botanist, has shown in his book on the origin of varieties by mutation, that characters persist unchanged and the great advance in the evolution of new kinds of cereals is based

* Boston, *Medical and Surgical Journal*, March 2, 1905.

on plans to discover and isolate specimens having the proper characters. The process is entirely different from what it was once assumed to be when agriculturists thought they caused new types by cultivation and then preserved them by selection.

*Mendel*, the priest, nearly fifty years ago, discovered a law of inheritance now dignified by his name, and by this is meant the fact that the characters of the parents are not necessarily blended in the offspring, but come out separately. It is now being discovered that this law applies to man also, and that children may have the physical characters of grandparents or more remote ancestors, and not necessarily be blended like a mulatto. By this law, there may be many varieties of man in one family, and as some of these varieties may perish from greater unfitness, one type may survive and carry on the family name. This is why family names do not disappear, even though the descendants may not resemble some of their progenitors at all. That is, there is never to be a distinctly American type, but for thousands of years Americans will resemble their European ancestors. Mediterranean types will be more numerous in the South, Alpine in the North, and dying Aryans sprinkled everywhere, but most vigorous in the mountains and other cloudy cold places.

The latest speculation of this character is that by *Professor Ripley*,* who thinks the interbreeding will cause reversion to the primitive prehistoric European out of which present types evolved, and he bases the prediction on the similar reversion of domestic pigeons to the primitive rock pigeon from which they were evolved, and the disappearance of recently acquired traits of plants. This law does not apply, because these phenomena are really results of restoring the original environment. In the case of man the original environment is not restored and, indeed, the constant interbreeding in Europe has not caused reversion. The "Pigmentary Survey" of Scotland, made by the anthropologists *Gray* and *Tocher*,† proved that mixtures due to modern transportation have not increased the homogeneity of type, but on the contrary have actually made the population more hetero-

* *Atlantic Monthly*, 1908.
† *The Journal of the Royal Anthropological Institute*, 1908.

geneous. This article, by the way, also shows the small proportion of pure blonds in Scotland, about one-fourth, and their elimination from city life, where the brunet earlier types are surviving, confirming *Shrubdall's* observations in England as to the disappearance of blonds from both city and country. Intermarriage of widely different types should be discouraged and boys advised to mate with their kind. As so forcibly stated by President *Eliot* of Harvard, the history of civilization shows that racial stocks are never mixed with profit. Nevertheless, in the end nature will preserve the fittest, no matter what we do.

# CHAPTER XVII

## TROPICAL NEURASTHENIA

ADVERSE FACTORS—RESULTS OF TROPICAL RESIDENCE—SUICIDE—OPINIONS OF OBSERVERS—GREATER HARM TO THE YOUNG—TROPICAL ANÆMIA.

### ADVERSE FACTORS

We have mentioned that the disappearance of migrated races which have journeyed to climates to which they cannot become acclimated by reason of physical characters which adjust them to colder and darker places, has been accomplished by the gradually increasing degeneration of successive generations. The basis of this condition is often, if not generally, a state of weakness of the parental nervous system which we call neurasthenia. This disease is so prevalent among white races in the tropics as to have merited the special term of tropical neurasthenia. It is also the basis on which other diseases are grafted and it deserves a further explanation, as it is perhaps the main reason why our relation to all our tropical dependencies must be commensal and not colonial.

It will be noticed that the climate in which a race underwent its recent evolution, exerts a tremendous influence upon the nervous system. The extreme differences between the various races make them unmiscible. Cold and severe climates are the best for this evolution, because they cause a more intense struggle for existence, and the survival of the fittest is here the survival of the most active and intelligent, just as in the terribly severe glacial times only the most intelligent survived, and there occurred a rapid evolution of brain. In hot climates where exercise is distasteful, the struggle for existence is of a different type, and there is a survival of the least active and no general improvement in the race. Low tropical savages are the fittest for their environment, and the strenuous white man is the unfit.

Races which remained in cold, bracing climates, developed a nervous system fundamentally different from tropical man. It seems to be inherent in the nerve cells, constituting a higher type of tissue, capable of doing more and doing it better than the nerve tissues of the tropical creature—in other words a higher and therefore more complex machine. As we know so little of the composition of nerve tissue, it is, of course, the wildest kind of speculation to build theories, though we do know that a nerve system growing up and developing in cold, bracing air, protected from excessive light, nourished with good meat and plenty of food, actively exercised every day and rested every day, will not do its work in the tropics, but on the other hand will proceed to deteriorate. In blonds it simply burns up, for their temperature is generally higher than that of natives. Nervous exhaustion is then our great danger in the tropics, and its ravages are terrible.

*Lombard** found that muscular power was markedly decreased in summer by several days of high temperature, especially with great humidity. *Grijns* has studied the reaction times of Europeans and Malays, and found that a sojourn in the tropics reduced the time fourteen and four-tenths per cent. as compared with newcomers, and sixteen per cent. as compared with that found in Europe. The Malay responded as well, if not better, than Europeans at home. He thinks that there is a general retardation of all nervous processes and the necessity for overcoming this inertia is responsible for the greater prevalence of neurasthenia in the tropics.†

"*Dr. Benjamin Ward Richardson* found, after long experiment and practice, that (for white men) sixty-four degrees F. is the best temperature in which to conduct mental labor. If the temperature falls below this, the mind becomes drowsy and inactive; if it rises much above this, there is a relaxed state of the body and mind which soon leads to fatigue and exhaustion."

We have elsewhere stated that the white man has proved that he can live anywhere on earth, but as *Ripley* says, toleration of the climate does not mean adjustment to it. We must protect ourselves from light and from heat or cold, or in other

* *Journal of Physiology*, 1892. † Archiv für Anatomie und Physiologie, 1902.

words build up an environment around us like that at home as near as possible, and not live like the native. We must live in an oven in the arctics or cold storage in the tropics, or, as *Benjamin Kidd* says, like living in a diving bell: "It is a cardinal fact that in the tropics the white man lives and works under water . . . neither physically, morally nor politically can he be acclimatized in the tropics." He also shows that evolution in colder climates makes a far different machine than in hotter. Yet with all our care we cannot approximate our home environment, and there is then a strain for which we are not built, and though some stand it a long time, exhaustion comes sooner or later. The writer first called attention to tropical exhaustion in 1900, and since then the condition has been found almost universal, and is flippantly called Philippinitis. The symptoms are identically those of the same condition at home when due to living in a manner whereby the exhaustions of work, worry or illness are not repaired by food and rest. *Manson** says that "prolonged residence in hot countries causes vague, ill-defined conditions of debility."

*M. de Manaceine*, in a work on "Sleep," states that when the temperature of a room is sixty-eight to sixty-six degrees many people sleep only six to eight hours; if sixty-four to sixty the same people sleep eight to ten hours, and if fifty-six to fifty-two, ten to twelve hours. In hot rooms, seventy degrees to seventy-six, they could sleep only three to five hours. In the tropics therefore, insufficient sleep is the rule, except where the nights are cool. This lack of recuperation must cause exhaustion, of which the latter insomnia is a mere symptom, and it is common in the Philippines in the hot cities, but not so frequent in the provinces where the nights are cool.

Another reason for the difficulty in recuperation in the tropics is found in the fact that heat dilates the superficial blood-vessels and lessens the amount of blood in the brain. We use a warm bath to cause cerebral anæmia and induce sleep in the restlessness of disease where there may be a cerebral congestion. It is especially beneficial in infants and children, and is the routine treatment in maniacal states. Hence, this same lessening of the

* "Tropical Diseases," page 16.

cerebral circulation in the constant heat of the tropics must lessen its recuperative power.

### RESULTS OF TROPICAL RESIDENCE

Loss of memory, loss of muscular strength, increasing presbyopia (old-sight), and all other signs of exhaustion are very common. "*Punjab head*" or "*Burma head*" is a cerebral asthenia due to exhaustion well known in the Indian army. It sometimes completely prostrates because loss of memory is very marked. Cases generally recover when they go home, only to relapse upon return. We have had many similar cases, though, but few are permanent.

The following table from *Lombroso* shows the month in which insanity begins, and illustrates the effects of heat and light:

| | | | |
|---|---|---|---|
| January | 1,476 | July | 2,614 |
| February | 1,420 | August | 2,261 |
| March | 1,829 | September | 1,604 |
| April | 2,237 | October | 1,637 |
| May | 2,642 | November | 1,452 |
| June | 2,701 | December | 1,529 |

Overwork in the tropics seems to be a very potent cause of exhaustion. Vigorous Americans invariably fall into this error, as they cannot understand why they should do less than at home. In time one learns to take things easy. A high civil official who had an intense interest in his work, informed me what a sad mistake he had made by working to his limit the first year. He soon found himself exhausted and unable to render correct legal decisions unless he limited his work. To be just, then, a judge should keep his mind active by the greatest conservatism of his mental powers. The same applies to clerks. The government gets more out of them in the tropics if there are only four and one-half hours of work, than if it exacts eight.

"The average native born (Australian) is taller and paler than his British forbear. The hot, dry climate induces a nervous temperament, also unlike the British stolidity. Girls develop rapidly, have a tendency to anæmia, and age earlier than is usual with English women." The nerves and physique "are further

exhausted by the busy life" they lead.* The New York *Medical Record* of February 2, 1901, published a letter calling attention to the rapid degeneration of Anglo-Saxons in New Zealand, and enumerated the prevailing conditions—loss of teeth, cessation of lactation in nineteen-twentieths of mothers, neurasthenia, chlorosis, sexual and nervous disorders.

There is a peculiar stimulation during the first few months of residence in the tropics just as the heat of hot mineral baths stimulate chemical changes when sluggish, such as in gout and rheumatism. *Manson* mentions it (page 369), and *Dr. James Cantlie,* in the International Textbook of Surgery, mentions the stimulating effects of the heat on newcomers to the tropics with the subsequent anæmia, exhaustion, lower vitality, feebleness and irritability. He also states that no natives have any physical or moral stamina.

There being increased tissue change of newcomers in the tropics, there must be a feeling of well-being with better and freer thoughts. It makes newcomers enthusiastic about the climate and they invariably say that it is far better than they were told. One high-ranking naval officer cabled home that the climate was perfect, and three months later he was carried home collapsed and ruined in health. I know of another officer who wrote his wife to come and bring the children, as the climate was perfect; before she could get on the boat she was cabled that he had died of disease due to his contempt for sanitary measures.

A chaplain, who came over with the volunteers and who, upon his return, published roseate views of the climate as fit for colonization, was killed in three years by the climate which had so basely deceived him by its early stimulation. While under this preliminary stimulation *Wm. E. Curtis,* the correspondent, actually wrote home that white men could labor in the fields, but *Dr. Louis H. Fales,* formerly of the Civil Service in the Philippines, shows that† the *tropic neurasthenia* is common among white people in the tropics, particularly the women.

* Colquhoun, "The Mastery of the Pacific."
† *American Medicine,* April 1, 1905.

## SUICIDE

As previously explained, there is no evidence that any civilized man in modern times ever commits suicide if he is mentally healthy. In more than half of the cases there is proof of marked insanity, and in the rest it is sure that there is a mental depression due to an incurable neurasthenia or a temporary exhaustion. The Chief Surgeon in the Philippines, *Colonel Greenleaf*, reported that most of the suicides are from this latter class. Of course, men who come from neurotic families, will suffer more than normal men. These facts are confirmed by the investigations of *Prof. E. G. Dexter*, University of Illinois,* of the suicides at home. He finds that like insanity† there is a marked increase in warm weather, April to August, inclusive, then gradually diminishing to a minimum in February. There is a remarkable increase on very hot days when the temperature is over eighty-five degrees. Humidity is also a powerful factor, and there is a gradual rise in suicides as the air becomes damper, a remarkable rise taking place in the days when the temperature is over ninety and the air saturated. These two facts at home explain the increase in suicides in the tropics among those who have been there long enough to be exhausted by the heat and moisture.

That suicides are more frequent in the light months than in the dark ones is also shown in the following table of *Petit*:‡

| | Paris | Italy | | Paris | Italy |
|---|---|---|---|---|---|
| January | 862 | 1,025 | July | 1,231 | 1,625 |
| February | 887 | 1,109 | August | 1,029 | 1,309 |
| March | 1,017 | 1,294 | September | 926 | 1,021 |
| April | 1,136 | 1,527 | October | 917 | 1,049 |
| May | 1,193 | 1,651 | November | 773 | 942 |
| June | 1,311 | 1,718 | December | 724 | 891 |

## OPINIONS OF OBSERVERS

"*Col. Charles R. Greenleaf* regards it as inevitable that the strength of the most robust American soldier should be undermined by tropical service. He says that after a year of service

* *Popular Science Monthly*, April, 1901.
† See Lombroso's table.
‡ *New York Medical Journal*, December 22, 1900.

in the Philippines the most energetic and stalwart American loses energy, strength, and ambition. It is more or less half-heartedly, and with a draft on his vitality that he actually feels at the time, that he performs what work his duty demands, and slight ailments, to which at home he would not give a second thought, he feels out of all proportion to their severity, so that the number of entries for trivial complaints on the sick report increases. We may gather from what *Colonel Greenleaf* says of the direct effect of the solar heat that something more than that is at the bottom of the enervation, that he depicts; 'men are often overcome on the march by heat,' he says, 'but real heat-stroke and lasting heat exhaustion are remarkably rare.' There seems to be, we should say, a general devitalizing influence exerted, much resembling in its effects that which so frequently accompanies influenza, but probably of greater duration."*

"Now India is a place beyond all others where one must not take things too seriously—the midday sun always excepted. Too much work and too much energy kill a man just as effectively as too much assorted vice or too much drink. Flirtation does not matter, because everyone is being transferred and either you or she leave the Station, and never return. Good work does not matter, because a man is judged by his worst output and another man takes all the credit of his best as a rule. Bad work does not matter, because other men do worse and incompetents hang on longer in India than anywhere else. Amusements do not matter because you must repeat them as soon as you have accomplished them once, and most amusements only mean trying to win another person's money. Sickness does not matter, because it's all in the day's work, and if you die another man takes your place and your office in the eight hours between death and burial. Nothing matters except home-furlough and acting allowances, and these only because they are scarce. This is a slack, kutcha country where all men work with imperfect instruments and the wisest thing is to take no one and nothing in earnest, but to escape as soon as ever you can to some place where amusement is amusement and a reputation worth the having."†

*Sawyer* mentions the mental, moral, and physical decay of whites who work in the tropics at manual labor, and also says:

* *New York Medical Journal*, February 1, 1902.
† "Thrown Away," Kipling.

"A gradual but complete break-up of the nervous system," comes to whites who live long amongst natives. "A peculiarity manifests itself amongst natives of the Far East in the curious nervous disorder which is called *mali-mali* in the Philippines and *sakit-latah* amongst the Malays of the Peninsular and Java. It seems to be a weakening of the will, and on being startled, the sufferer entirely loses self-control and imitates the movements of any person who attracts his attention. It is more prevalent amongst women than men. I remember being at a performance of *Chiarini's* Circus in Manila, when *General Weyler* and his wife were present. The clown walked into the ring on his hands, and a skinny old woman amongst the spectators, who suffered from the *mali-mali*, at once began to imitate him with unpleasing results, and had to be forcibly restrained by the scandalized bystanders. Running amok marks a climax of nerve disturbance, when the sufferer, instead of committing suicide, prefers to die killing others. Both natives and white residents are at times in rather a low condition of health, and if after exercise or labor they fail to get their meal at the proper time, when it comes they cannot eat. In its lighter form this is called *desgana* or loss of appetite, but I have seen natives collapse under such circumstances with severe headache and chills. This more serious form is known as *trespaso de hambre*, and is sometimes the precursor of fever and nervous prostration. Amongst the Europeans who have been long in the islands, many are said to be '*chiflado*,' a term I can only render into English by the slang word, *cracked*. This occurs more particularly amongst those who have been isolated amongst the natives.

"Long sojourn in some other lands appear to act in a different manner. In tropical Africa it seems to be the moral balance that is lost. The conscience is blunted if not destroyed, the veneer of civilization is stripped off, the white man reverts to savagery. The senseless cruelties of *Peters Lothaire, Voulet, Chanoine* and of some of the outlying officials of the Congo Free States are not mere coincidences. They must be ascribed to one common cause, and that is debasement by environment. The moral nature of a white man seems to become contaminated by long isolation amongst savages as surely as the physical health by living amongst lepers. If the poor white man takes out a white wife, he will probably have the pain and distress of seeing her fade away under the severity of the climate, which his means

do not permit him to alleviate. White women suffer from the heat far more than the men. Children cannot be properly brought up there after the age of twelve. They must either be sent home to be educated, or allowed to deteriorate and grow up inferior to their parents in health, strength and moral fiber. When I think of these things, I feel amazed at *Oscar F. Williams'* presumption in writing that letter."*

### GREATER HARM TO THE YOUNG

Not only do children suffer in the tropics, but the men over fifty do not stand the climate as well as the young. The proper age to go to the tropics is in the time of the greatest physical vigor, from twenty to thirty years of age, and it is not very safe even then.

These rules are borne out by the results of an examination of the ages of a regiment of soldiers divided into classes as to whether they stand the climate (1), deteriorate (2), break down (3), or die (4). The following table presents the percentages:

| Age | Percentage | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| 17–20 | 66 | 17 | 5 | 12 |
| 21–25 | 65 | 26 | 7 | 2 |
| 26–30 | 69 | 18 | 10 | 3 |
| 31–35 | 56 | 28 | 11 | 5 |
| 36–40 | 52 | 26 | 13 | 9 |
| 41–45 | 65 | 12 | 17 | 6 |
| 46–50 | 50 | 17 | 17 | 17 |
| 51–55 | | 33 | 67 | |

Men below thirty have an advantage in preserving their health; from thirty to thirty-five there is less chance and men over thirty-five are at a disadvantage. The boys below twenty and those from twenty to twenty-five are about on a par as to their ability to retain health, but the younger die or break down where those twenty to twenty-five merely deteriorate in health. Twenty-six to thirty seems to be the most resistant age, as it

* Report as Consul in Manila, July 2, 1898, "Blue Book," pp. 330–1, advising an influx of 10,000 Americans, who "all can live well and become enriched."

has the highest percentage who retain their health. Over thirty progressively more break down. The percentage of deaths increases from twenty-five up, as we would expect. Our soldiers, then, should be twenty to thirty for tropical service; younger than this they die more frequently, over thirty they deteriorate more frequently, and over thirty-five break down and die in greater numbers also. Nevertheless, the figures show that the advantage of youth is not so very great, as it is probably counterbalanced by the greater discretion of maturity. Old men should stay at home, and none over fifty-five, or, better, none over fifty be sent out—still better, none over forty-five.

The 1908 Report of the Surgeon General presents similar statistics, and *Burot & Legrand*, in their work on Tropical Hygiene, state that experience shows that soldiers less than twenty-two do badly in the tropics, and that many of the boys of eighteen or nineteen sent out never return. He places the minimum at twenty-three, and *M. Morache* places the limit at twenty-five, because the maximum resistance to fatigue and disease is between twenty-five and thirty-five. They advocate retirement after fifteen years service, and that every soldier be retired before forty years of age, unless he be a non-commissioned officer, when it may be lengthened to forty-five years of age. Colonization is impossible where the young and old cannot safely live.

## TROPICAL ANÆMIA

Tropical edema is a swelling or dropsy of the lower extremities generally from knees down and due to cardiac weakness. It is the condition we find in cooks, policemen and others who have to be on their feet, and whose circulation is thus dammed back by the constant hydrostatic pressure which in other people is relieved by other exercises or being occasionally seated. But in tropical residents there is a dwindling of all the muscles, including the heart, so that there is almost universally a condition of cardiac weakness, and this is sufficient to cause the dropsy. We should call this condition the *tropical heart*, because it is so common.

Tropical anæmia generally refers to the anæmia due to intes-

tinal parasites (anchylostomiasis), but there is an anæmia in all people of over two years' residence and in many who have been there but one year. It is part and parcel of the general exhaustion we have mentioned, and not due to infections. It is practically universal, and deserves more investigation to discover whether it is a real reduction of number of blood cells or a chlorotic condition of lessened hemoglobin. It is particularly noticeable when a transport arrives, and we can compare the newcomers with the veterans.

All these conditions increase tropical exhaustion, and we have thus proved that permanent residence of white men in our tropical dependencies is wholly out of the question, for it results in a neurasthenia which unfits for further work. Our contact with the natives must be kept up by officials who go there for limited terms.

Tropical neurasthenia, by the way, is the identical condition called American nervousness, and due to the same causes, the unfitness of Northern types to the climate, and is found more frequently in blonds as a matter of course.

# CHAPTER XVIII

## PROPER NOURISHMENT FOR WHITE MEN IN THE TROPICS

PREVALENT ERRORS—RESULTS OF EXPERIENCE—NEED OF FATS—NEED OF SUGAR AND ALCOHOL.

### PREVALENT ERRORS

We must now return to the subject of nitrogen starvation to show how difficult it is for a white man to nourish himself when he migrates to a hot climate to which he is unadjusted. He cannot live as the natives, for, as we have shown, they are usually so overcrowded as to be in a serious condition of nitrogen starvation themselves. In addition, their foods and methods of preparation are nauseating to him and, therefore, lead to indigestion and gradual impoverishment. He must then import special foods, use special cooking arrangements, and live apart from the life of the country. He cannot live on the country as true colonization demands.

We have shown that the increased exhaustions demand as much if not more nitrogen than at home in accordance with modern medical practice which resorts to forced feeding with nitrogen in all wasting or exhaustion diseases, tuberculosis, typhoid, most insanities, neurasthenias, including alcoholism and all the rest of the long list; yet there is a false popular idea that we must use less nitrogen because the natives use little. Every one presumes that the natives are properly fed, but we have shown that they are always starving or underfed. It will be a long time before this false idea disappears, for all such popular errors persist with wonderful tenacity.

A long time ago, before we knew anything of tropical diseases or the damages due to the climate, it was thought that all our troubles were due to overeating, because the only marked and noticeable habit of the English was the fact that they ate more

than the starving natives. In those days nothing was known of the uses of the liver, and not so very much is known now, by the way, and the unknown has always exercised a great and exaggerated mental influence. All kinds of diseases and conditions were attributed to the liver being "sluggish," "overloaded" or "out of order." The idea has become a fixed one in the popular mind and will not disappear. By means of it quacks reap a golden harvest by ascribing all diseased conditions to the liver, and giving little liver pills or any old thing to "act" on the liver. One man has publicly stated that our army collapsed at Santiago and was taken to Montauk because every soldier who went there had a "swelled liver." Those who talk grandiloquently of a "deranged liver" do not know what it really is. Now, we know that while some chronic liver affections may be due to poisons brought from the stomach and intestines, tropical abscess is due to bacteria or other germs brought in through broken surfaces in stomach or intestine.

We formerly starved in summer and prayed for cold weather so that we could eat. If we had only eaten better, we need not have prayed so hard. In the Santiago campaign there was a medical officer who insisted upon every one being starved and who believed that to eat heartily was fatal. He preached his doctrine continually until every one believed him, and they restrained their appetites even when they could eat, and many were hungry days at a time. It was noticed, nevertheless, that the doctor himself had not sufficient self-control to restrain his appetite, but ate large quantities of all kinds of stuff, at all hours, and whenever he was inclined. Out of a dozen men or more in the mess, he was the only one who escaped sickness—all the others collapsed. The men who survived were convinced that they would have been worse off still, or even dead, if they had not starved themselves. Overeating, by the way, is possible, but it is harmful only in the idle and sluggish. The climate merely results in exhaustions and never originates a case of cholera, dysentery or typhoid.

*Col. Chas. R. Greenleaf*, says that only exceptionally does food cause intestinal troubles in the tropics, and* that the ration

* Report of Surgeon General, 1900.

is not responsible for these infections either by its variety, character or quality.

## RESULTS OF EXPERIENCE

What a crime, then, it would be to cut down our meat ration in the tropics, where there is more exhaustion than at home. *Dr. C. L. G. Anderson,** as a result of his experience, mentions "tropical neurasthenia," "need of meat and not rice," advises us "not to reduce the ration," and mentions the "uselessness of cholera belt" to exclude infections. *Lieut.-Col. Geo. W. Adair*, Chief Surgeon in the Philippines, in his annual report, 1902, states:

"Continued experience still more tends to disprove belief in the advantages to be derived from a reduced ration, lessened in the amount of nitrogen and fats. In the theoretical discussion of this subject, claims are made that as food in the tropics is not required for the maintenance of bodily heat, it might with advantage be reduced, especially in those foods which are heat producing. Other theorists have gone even further, even to the point of contending that rice, being the staple food of natives, should be adopted, to the exclusion of all else, by the white man dwelling in the tropics. Heat production must go on in tropical countries as in temperate climates, in fact a certain amount of heat production is essential as long as life lasts; the balance is maintained not by decrease in food but by increasing heat loss by the use of lighter weight clothing.

"The factor on which amount of food needed depends to such a great extent as to make other factors of an almost negative importance is work. That a soldier's work in the tropics is less than in a temperate climate is not true; the results accomplished may be less, but tissue is used up with much more rapidity in a mean temperature of 85 degrees F. than at 50 degrees F., and an ample supply of good food is required to supply this waste, the effects of deprivation being shown immediately in reduced strength and health."

The annual report of *Col. Valery Havard*, Chief Surgeon in Havana, February, 1901, says:

* *American Medicine*, March 22, 1902.

"The food of a large proportion, if not a majority of the population, consists mostly of bread, vegetables, fish and fruit, sometimes in insufficient quantities; meat is an expensive luxury quite beyond their means. From this circumstance, some writers have jumped at the unwarrantable conclusion that there is an instinctive dislike for meat in tropical countries and that one is better off without it. This conclusion is disproved by the fact that meat, in a great variety of forms, is always found upon the table of the well-to-do, and by the striking contrast between the robust, healthy-looking meat eater and the thin, anæmic, pot-bellied fish and vegetable eater. The truth is that meat is an indispensable component of a good diet in all parts of the world."

*Maj. G. W. Ruthers*, surgeon, says* that soldiers in the tropics need the full army ration, including the full allowance of fresh beef, as health cannot be maintained without it. *Col. E. S. Godfrey*, Commanding 5th Brigade in the Philippines, commenting upon the complaints which followed the order reducing the amount of the ration given to the native troops, who formerly had the same food as the white soldier, says:

"It is claimed that when the army ration was given—the native scouts showed wonderful physical development. The officers of the scouts claim that the endurance and bearing of the men generally was much better with the army ration than since they have had a separate ration."

I have repeatedly heard these same complaints.

A board to investigate tropical ration says:

"The recommendation that the fresh meat ration be reduced in quantity was so opposed to all the teachings of experience, both in our country and in Cuba and Porto Rico, that the board was unable to accept the recommendation as conclusive without further investigation. Two members of the board have served in Cuba, and the third in Porto Rico, and their personal experience has been that as much fresh meat was desired and eaten as in the United States, and with no deleterious effects on the health of the men. The natives of these countries are largely meat eaters when they are able to procure it, and the meat eaters are noticeably healthier and stronger looking than the poorer classes,

* *American Medicine*, June 15, 1900.

who, from necessity are mainly vegetarians. The board also interviewed a number of officers and other people who have been in the Philippines, and taking all sources of information together, the board is of the opinion that it would be a mistake to make a fixed reduction in the meat ration."

*Col. Chas. A. Woodruff*, Chief Commissary in the Philippines, has shown in his article,* by a great many references, the urgent need of nitrogenous food and the danger of cutting it down.

The British were compelled to increase the ration of meats in the tropics instead of decreasing it. They now give approximately a pound each of meat, bread and vegetables in addition to many other things not given at home. The meat ration alone in South Africa cost eighteen cents. As before mentioned Japan had to increase her nitrogen and fat ration to stop beriberi in her navy. A great deal more testimony of the need of nitrogen among all tropical natives is recorded under the discussion of the nitrogen starvation, all of which is to be kept in mind whenever any one suggests reducing our meat allowances to accord with starved natives.

## NEED OF FATS

Another standard blunder at home is the idea that no fat should be eaten in the tropics. It is also falsely stated that tropical natives do not use fats to any great extent. *Doctor Semeleder*, of Cordoba, Vera Cruz, writes that under the effect of this false idea, foreign visitors to the tropics "are always shocked by the quantity of fats these people take." An army surgeon, who has seen much of the lower classes in Cuba, informs me that they have an intense desire for fats. In the Philippines fat pork is one of their necessities. In the Mediter anean all the nations fairly grovel in grease—all their foods swim in oil of which they consume large quantities. *Maj. P. R. Egan*, Surgeon, United States Army,† also calls attention to the great taste for fats shown by the native Porto Ricans, who consume large quantities whenever they can get it. He scouts at the idea that there is

* "Ideal Ration for the Tropics," *Journal* Military Service Institution, 1900.
† Boston, *Medical and Surgical Journal*, March 21, 1901.

any distaste for fats in any quantity in the tropics. He also called attention to the blunder of reducing our ration to the standard of starved savages unable to get food. *Dr. H. E. Banatvala,* Major, Indian Medical Staff,* mentions the great necessity of fats in the tropics. He also talks of the necessity for a liberal ration in campaign, though less is needed in garrison in tropics. In the Philippines we tried reducing the bacon and the soldiers at once bought lard, and the commissary officers reported that there is a demand for more fat bacon than the allowance. It is a natural normal thirst, and all of us find ourselves eating fat things with relish, even more so than at home. Practical experience is unanimous that our idea of reducing fats in the tropics was another of those ignorant ideas coming from men who never lived south of Boston.

*Maj. Jas. N. Austin,* Chief Commissary Department Northern Philippines reports July 1, 1902:

"Continual experiences confirm the conviction that the theory of a special ration for the tropics is untenable. The demand for fats and sweets among the troops doing duty in the Islands is quite equal to that found among those in Alaska. As shown by invoices, between 60,000 and 70,000 pounds of candy have been shipped since August 24, 1901, to different posts in the department. And in all the accumulation of components of the ration reported in excess of needs of stations following the departure of the volunteers last summer, and consequent heavy reduction of garrisons amounting to many thousands of pounds, not a pound of sugar was reported in excess of needs. And this in face of the fact that the authorized allowance of this component has been increased by one-third. It is only a few days since a letter was received from the commissary at a station nearer the equator by some degrees than this, asking if the seven-tenths allowance of fresh beef his men were receiving might not be reduced and the allowance of bacon correspondingly increased, there being a general appeal to that effect. While no fault was found with the beef which was uniformly excellent, the men wanted more bacon."

*Sawyer,* previously quoted, also says:

"Employers seem to forget that the ordinary food of a native, rice and fish, is not sufficiently nourishing to enable him to do

* *New York Medical Journal,* May 26, 1900.

hard and continuous work, such as is required in mining. A higher rate of pay than the current wages is essential to allow the miner to supply himself with an ample ration of beef or pork, coffee and sugar. The Roman Catholic Church has had the wisdom to recognize and make allowance for the liability of residents and natives of the Philippines to this serious disorder (neurasthenia), and has relaxed the usual rules of fasting, as being dangerous to health. In the tropics a good table is a necessity, for the appetite needs tempting. Such a diet as I have mentioned (plenty of meats and other nitrogenous foods), will keep you in health, especially if you are careful not to eat too much, but to eat of the best."

The diet he recommends, eggs, chickens, plenty of ripe fruit, diversified with oysters, prawns, crabs, wild duck, snipe and quail, would be wholly impossible in a ration, for not a thousandth part of amounts needed could be obtained. The soldier must have easily supplied staple articles. In other words, residence in the tropics is impossible unless we import appropriate foods, and even if acclimatization were possible the "colonists" would be fed from home.

## NEED OF SUGAR AND ALCOHOL

In addition to all this, there is an actual need of the maximum amounts of sugar in the diet, for this easily digested food supplies available energy when most needed. Indeed, the excessive consumption of sugar by our soldiers is instinctive and is of itself a proof of the exhaustion which is so common. The matter will be more fully explained in discussing the need of tropical products.

Almost as important as the food in the tropics is the question of alcohol. The exhaustions must be combatted in every way, and the increasing amount of evidence as to the necessity for a little alcohol with meals, only emphasizes the impossibility of acclimatization and colonization. Where alcohol is a necessity normal living is an impossibility.

In April, 1900,* the writer first called attention to the need

* *Philadelphia Medical Journal.*

of alcohol to combat the exhaustion due to our physical unfitness for tropical conditions. This rather took the breath away from the home folks who had never lived in the tropics, and who believed that as centuries of experience showed that excessive amounts of alcohol are more harmful than at home, therefore, small amounts are also harmful. They did not appreciate the fact that it had never been shown that small amounts were either harmful, harmless or useful. They did not see that their attitude was the same as advocating total abstinence from water because so many thousands were yearly drowned in it, or having no heating arrangements in our houses at home because so many were destroyed by fire, or advising perpetual rest in bed because so many were ruined by excessive exertion in the tropical sun. They did not understand the axiom that every necessity of life is fatal in excess, nor its corollary, things fatal in large amounts like quinine may be occasionally necessary in small amounts. They did not apparently know that though meat is good food, too much is fatal, and the same may be said of starch and sugar and fat. They forget that even water may kill if too much is administered.

More evidence was published in the New York *Medical Record*, in 1905, and since then even more has been discovered.* The details do not concern us. We are only interested in the fact that tropical experts are drifting to a gradual acceptance of the increasing mass of proofs, that a very small daily dose of alcohol, with meals, after the heat of the day, is a necessity for the majority of Northern types in the tropics. The medical profession is almost unanimous in opinion that where alcohol is necessary, life is abnormal.

* *American Medicine*, November, 1908.

# CHAPTER XIX

## WHITE RACES DEPENDENT UPON THE TROPICS

OUR INCREASING NECESSITIES—SUGAR—CAFFEINE—ALCOHOL—RUBBER—FIBERS AND LEATHER—INCREASE OF TROPICAL IMPORTS—TROPICS DEPENDENT UPON THE NORTH.

### OUR INCREASING NECESSITIES

The tropics being then completely, absolutely and forever out of the question as spheres for colonization, what is the good of our new move? Are we simply streaming to a new environment merely to perish and thin out the home country, as our elder brethren did in India, Java, Northern Africa, Greece and Rome thousands of years ago? Is it merely to thin out New England to make the stay-at-homes safer? As long as we are even now producing enough food and other necessaries for almost double our present population, and as there will be further increases, we can well dismiss the necessity for thinning out. The flow is toward America.

Two conditions, each subject to law, answer the question. In the first place, certain products of the tropics are now necessary for our existence. This is one of a group of phenomena which must be explained in full or we will fail to realize the importance, indeed the vital necessity, of "The White Man's Burden." It may thus be stated—*the higher the civilization, the more numerous become the necessities of existence.* That is, the higher the type, or the more intricate the machine, the more it needs for survival. Luxuries of one age are the necessities of the next.* There is no end of illustrations, many of which, no

* Prof. Ira Remsen, of Johns Hopkins University, says (*Science*, January 1, 1904): "Things that are not dreamed of in one generation become the necessities of the next generation. Many thousands of workmen are now employed and millions of dollars are invested, in the manufacture of dyestuffs that were unknown a few years ago."

doubt, will present themselves to every man in his own particular sphere so that it would be a waste of time to mention them. The longer we live as a race, the more we require to keep us alive, because we ourselves are different. If we returned to the life of a savage we would promptly die of exposure or starvation, for we could not eat the food of our ancestors of a few thousands years ago. Evolution means enfeeblement and a more intricate human machine for which more care is necessary.

This law is only a corollary of the law of selection. Man survived by reason of the favorable variations. His hair, for instance, disappeared because the least hairy were better fitted to survive rapid changes of temperature, one day cold, another hot, etc. Thus, clothing became a necessity, while once it was a mere ornament or luxury, and though we now need protection from cold, we are not degenerate, but a higher evolution with more needs—indeed the only type which could survive—the fittest. Horses need hair in their natural state, but it is too much for active exercise in civilization, and they are healthier if clipped and blanketed when idle. We can go on through the whole list of modern needs and follow up the same law. Hence, the fittest types are those with intelligence enough to survive by their avoidance of the causes of death. Great musculature is a nuisance and takes up too much time and nourishment to keep it healthy, and the less muscular types have the advantage in modern life. We now have machinery for brute force. The weaker prehistoric men on horseback were superior to the muscular fellows, too stupid to train horses. Intelligent weaklings are the best types, for certain situations, and, indeed, they actually put the most robust in dangerous places—soldiers, sailors and policemen—and kill them off. Machinery of all sorts, then, is a modern necessity to aid our incompetent muscles.

## SUGAR

Sugar is a beautiful illustration of a former luxury which has become a necessity, and it also illustrates the increasing dependence of Northern races upon the foods produced by tropical peoples. It deserves extended notice, for it is also a proof of

the fact that white men must control the tropics or suffer reduction of numbers and efficiency.

Through the ordinary laws of selection all animals prefer the foods which nourish them the best. Man's remote ancestor was able to digest cellulose, like the goat or camel now, but starch was no doubt preferred, and as he was able eventually to secure enough starch from grains and fruits, his organ for digesting cellulose dwindled in time, and now is a mere vestige of its former greatness—the vermiform appendix. The lessened ability to digest starch was not degeneration, but an involution leading to survival, as there was less strength wasted in useless organs.

In time man himself, somehow, learned that heated starches tasted better, and we now know that dextrin or even sugars may thus be formed. But such cooking breaks up the starch grains and renders them more digestible, and as survival was possible on less food, natural selection preserved the men who resorted to cooking exclusively, and there was through involution a still further reduction of our powers of digestion, and we are now weaklings dependent upon cooked starches. The luxury has become a necessity.

Within the last few centuries a new and further evolution has begun and has already progressed to a considerable degree. Physiologists have shown that carbohydrate foods are presented to cells in the form of a sugar, both in plants and animals. Indeed, mammals furnish their young with a solution of sugar in the milk. Hence, starch digestion in man is merely changing it into sugar. He who eats a little sugar is at a decided advantage, for he lessens the burden of digestion and can survive with less food and weaker digestion. The craving for sugar is, then, the same phenomenon as the craving for cooked starch, or for starch in preference to cellulose, and there is a survival of those who can obtain sugar. This is a natural evolution over which we have no control whatever, and has been going on without our knowledge. It has progressed to a point that we can already safely eat four or five ounces of sugar daily, and probably could dispose of more if taken frequently in small doses highly diluted.

As all such evolutions are very slow it will of course be many thousands of years before we are dependent upon sugar, like the bees, and unable to digest starch. Indeed, there is a counteracting factor, for strong solutions of sugar are distinctly poisonous, not like strychnine, of course, but injurious to living tissues. We even use syrups as antiseptics to prevent the growth of putrefactive organisms. Nature always presents the sugar to cells in very dilute solution, and our starches are digested and absorbed very slowly. Hence, it has been only recently realized that if we eat much sugar at a meal, it is absorbed in such strong solution as to be extremely harmful. This is particularly true of glucose, the form into which cane sugar is changed before it is absorbed. It is now suspected that such irritations may even cause contracted liver. It is not true that this condition is confined to drunkards; indeed, it is probably more common in abstainers, and there is ground for the belief that sugar is now and then the fault, and abstainers take more of it than alcoholics do. The irritation of sugar in the blood may even cause death, as in diabetes, when the system has lost the power to further oxidize the sugars delivered to it from the alimentary canal.

If we are ever dependent upon sugars to the exclusion of starch, we will be compelled to take them in weak solutions and frequent small doses. Even at present such a use of sugar has become a necessity in armies, because it is absorbed quickly and at once furnishes energy to refreshen exhausted men in campaigns. Experiments have been made in both the German and French armies, which showed conclusively that extra rations of sugar to the extent of four ounces per day, caused great increase of energy, vigor and less sickness. In some cases as much as ten ounces were taken, though this seems to be beyond the present safety line.* This is why all armies are increasing the allowance of sugar.†

When soldiers are exhausted they crave sugar in the same way as underfed women. In the tropics the consumption of it is enormous, both by natives and white men, and at one time

* M. Joly, Arch. de Médecine et de Pharmacie Militaire, April, 1907.
† See also Bulletin 93, United States Agricultural Department.

our soldiers in the Philippines used twenty tons of confectionery a month.*

The craving for sugar, then, is perfectly normal and explains the history of that commodity. Two thousand years ago no one knew of it, though they cultivated and ate all the sugar foods they found—grapes, figs, dates, honey and maple syrup. When sugar was discovered it was a mere drug or curiosity.† Then it became a sweetmeat for feasts, but gradually became a part of the ordinary diet, and is now a necessary ingredient in many of our dishes. The consumption in the United States alone amounts to about eighty-three pounds per capita, and the importations have mounted to billions of pounds yearly, and are of more value than our exports of grain. This is economy of the highest sort, even if it costs more than starch, for we are relieving the digestion of some of its burdens. Even our Indians, who never saw sugar until recently, are dependent upon it, and it constitutes a necessary part of their ration for which they will barter anything they possess. Like all other necessaries the cost of sugar is always diminishing, and though it was as high as five dollars a pound in the fourteenth century, it is now not far from a cent and a half. Its use is constantly increasing, and we are absolutely dependent upon the tropics for it, and we use one-

* The sales and issues of sweets for the year ending June 30, 1902, were reported by the Chief Commissary in Manila to be as follows:

| | | |
|---|---|---|
| Sugars | 4,619,693 | pounds |
| Candy and Chocolate Cakes | 262,196 | pounds |
| Molasses, Syrup and Honey | 28,334 | gallons |
| Malted Milk | 30,326 | pounds |
| Mellin's Food | 937 | bottles |
| Condensed Milk | 1,934,639 | cans |
| Australian Fresh Milk | 13,385 | gallons |
| Preserves and Canned Fruit (¼ to ½ sugar) | 1,042,367 | pounds |

† "Cane-sugar was made by the Chinese at a very remote epoch. In the West it was known much later; Pliny, Varro, and Lucan, among the Romans, at the beginning of our era, just make mention of it, and it was then known under the names of 'Indian salt,' 'Asian honey,' and 'Arabian' or 'Indian juice.' In 1090 the Crusaders, on their arrival in Syria, found cane-sugar there for the first time, and it became part of the soldiers' ration. In the following centuries sugar-cane was introduced into the island of Cyprus, into the Nile Delta, on the north shore of Africa as far as Gibraltar, into Sicily, and into the Kingdom of Naples; then into Spain in the fifteenth century and thence into Madeira and the Canaries. In 1644 the French took it to Guadeloupe and shortly afterward to Martinique and Louisiana. The Portuguese introduced it into Brazil, and the English into Jamaica."—*Cosmos*.

fourth of the sugar made in the world.* Unless we control the tropics, they will relapse, as Hayti did, and we will suffer for this necessity. Anti-imperialism is, therefore, race suicide.

## CAFFEINE

The problem of tea, coffee and other stimulants is equally instructive. There was a time when primitive men used no stimulants at all, but depended upon those stimulating internal secretions now known to be produced by such glands as the thymus, thyroid, supra-renal capsule, and many others. In time certain plants were found to be stimulating and were instinctively consumed. At present we have become dependent upon them through inheritance from ancestors who survived because they could do better work than the unstimulated. Man now finds a stimulant necessary if he is to live long and work well, and that which has survived the test of centuries is caffeine. Some, chiefly in subtropical zones, take it in coffee; others, mainly those in temperate and cold climates, prefer tea; others, cocoa or chocolate, and its use is universal in civilization. Even among the antagonists of all stimulants may be so excessive as to be harmful. Its moderate use seems to fill all the needs of existence of normal white men in a normal environment and renders unnecessary the other stimulants upon which some nations depend. Opium, for instance, has weeded out the susceptible Hindus so that only immunes are left, and it is not only harmless to them, but the New York *Medical Record* of January 12, 1901, quotes many authorities showing it to be actually beneficial to those Asiatic races which have known it a long time.† To races newly introduced to opium it is very harmful, as the unfit (*i.e.*, non-immunes) have never been killed off. Filipinos, and indeed all Malays, use the stimulating betel nut (bonga) which they chew up with a little lime and a green leaf (buyo). Its use by adults is universal, and they suffer from its depriva-

* "By countries, the order of importance of our sugar imports in 1903 is: Cuba, Hawaii, East Indies, Porto Rico, British West Indies, other West Indies, Brazil, other South America, Germany, Africa, Austria-Hungary, Philippines, British North America and Central America."

† See also details in *G. A. Reid's* "Alcoholism."

tion as we do when deprived of our morning coffee. Other Asiatics use hashish, South Americans cocaine in the coca leaf, Central Africans the fresh kola nut, and so on universally.

Hence, we cannot live properly without tea and coffee, and as the tropical natives cannot grow enough for us, we must send down representatives or agents to the tropics to do it for us. It will be to the mutual interests of the native and ourselves. It is not meant to say that no man can live without tea, coffee and similar stimulants, for we all know of men, and great workers, too, who never touch them, but the abstainer is not as efficient as a rule, and is pushed to the wall by those who depend upon them.

## ALCOHOL

The enormous consumption of alcohol in constantly increasing amounts may be partly explained by the fact that it is now proved to be one of the stages of the oxidation of sugar by both plants and animals. Certain ferments or enzymes produced by the cells accomplish this. In one sense, it is the only carbohydrate food we use, and is always present in our bodies. To take it in tiny amounts only relieves us of the necessity of digesting that much starch. Like sugar, it is a poison in strong solution, but unlike sugar is has a selective action on nerve cells and cannot be harmlessly taken in larger amounts than one or two ounces distributed throughout the day. It does seem as though alcohol were becoming necessary, a most curious and disquieting thought. Perhaps its sedative effect at night is as necessary as the stimulation of caffeine in the morning. At any rate, its production consumes immense quantities of starch and sugar from the tropics. At the same time that alcoholic consumption is increasing all over the world, we are witnessing the curious paradox that in many lines of work—engineers, motormen, chauffeurs—total abstinence is becoming necessary on account of the loss of mental clearness which may result in fatal accidents to others. Employers are also finding out that the abstainer does more work and they will not employ a drinker, though they may themselves indulge. The reason for all this is the tendency to drink to excess and paralyze one's powers during

working hours. This does not alter the fact that alcohol is becoming a more common beverage for those who can use it.

It is to be noted that the enormous consumption of alcohol and sugar in America is the same phenomenon as the craving for both in the tropics and is partly due to that tropical neurasthenia of migrated types which we have shown to be so common in both places, though in different degrees. Australians also yearly consume 129 pounds of sugar per capita, while the German nation uses 36 and the French but 32. Alcohol and sugar are even interchangeable to a certain extent and replace each other in exhausted states. This fact has recently been seized upon by a few observing physicians who are convinced that the judicious use of sugar in non-poisonous, frequent doses has actually reduced the craving of alcohol in drunkards and may be an aid in the cure of cases not too far gone—an amazing idea which seems destined to have far-reaching results. That is, hot climates may give us the preventives for their own ill effects.

### RUBBER

Rubber is now necessary for our existence, as without it, our telephone, telegraph and railroad systems would fall, the flow of food to cities would be checked and starvation result to hundreds of thousands. We import millions of pounds, and the supply is so limited that the price has doubled, and we find that the native of South America is destroying the rubber trees, so we must protect these plants and raise more. White men must go there to do it, and if the native government does not guard him and his property, it must give place to a white man's government which will protect this industry.*

Meanwhile, discoverers and inventors are at work to increase the supply. It is conceived possible to establish a great rubber-growing industry in the Philippine Islands, and officers are ex-

* *Collier's Weekly* for January 23, 1904, says: "Rubber is getting scarce, owing to the rapid growth of manufacturing interests, and to the gradual exhaustion of the supply of crude rubber. The rubber scrap heap is becoming an important factor in the situation. Last year we imported 24,659,394 pounds of scrap India-rubber, and used as much more from the scrap piles of this country. The imported scrap rubber was worth more than a million and a half dollars."

ploring lands suitable for growing forests of rubber trees. At the present writing the Department of Agriculture intimates that our future rubber interests in our new Far Eastern possessions will be worth all that we ever paid for their acquisition. From Borneo and other parts of the East Indies there comes a new product a a good substitute for India rubber. It is called gutta-jootatong, and it is used in combination with gutta-percha with excellent results. It is a thick, sticky, whitish substance, resembling marshmallow candy. Some 14,000,000 pounds of this were imported last year. When it is realized that one rubber company in this country sold $30,000,000 worth of rubber shoes and boots, and another sold $15,000,000 of other rubber articles, and when we realize the equally enormous quantities used in tires and hose, it is evident that we must control the production or we will soon suffer.

## FIBERS AND LEATHER

Paper was a luxury a few years ago, but the complications of civilization have made it a necessity. The paper makers in the United States are being put to their wits' ends to secure the necessary soft woods and fibrous materials. The nearby supplies will be exhausted in time, and, indeed, we are already going further and further from home for materials. In a little time it will be necessary to go to the tropics for the immense quantities of fibrous stuffs yearly wasted or even burned. In our efforts to help ourselves by cultivating more of these stuffs, we will benefit the natives more than they could themselves, a clear case of mutual aid. Break the union and both would suffer. It is reported that more than 2,000,000 tons of waste sugar cane in the Hawaiian Islands are annually available for certain kinds of paper. If we abandon these possessions this necessary supply is cut off, and it is doubtful whether our corn stalks can be marketed, though recent inventions can utilize them to make pulp.

Uruguay is an illustration of our dependence upon the products of another people. Though we have enormous quantities of hides to be made up into leather for our factories, we have not enough by any means, and we now import the extra amount

from South America, as we have for nearly a century. From Uruguay alone we get millions of dollars' worth every year, while the flesh goes to Europe. English shoe makers were greatly injured by a leather famine resulting from the huge quantities used in the Russian-Japanese war. A like calamity could visit us.

### INCREASE OF TROPICAL IMPORTS

From all over the world a flood of evidence is now being presented showing the dependence on the tropics of every civilized people. *Benjamin Kidd** clearly shows the fact that the English speaking world, though it cannot live in the tropics, is absolutely dependent upon tropical goods for its existence. England's trade alone, in 1895, amounted to £738,000,000 sterling, and of this, £138,000,000 was with tropical countries, £233,000,000 with the English speaking world, and £367,000,000 with the rest of the world. The tropical imports were valued as follows in millions of pounds sterling:

| | |
|---|---|
| Rubber | 5.0 |
| Cocoa | 1.0 |
| Coffee | 3.5 |
| Cotton | 36.0 |
| Drugs and Dyes | 5.3 |
| Gum, Oils and Gutta-percha | 3.4 |
| Jute | 4.1 |
| Sugar | 19.0 |
| Tea | 10.0 |
| Tobacco | 4.3 |

and an enormous list of other articles, such as hard woods, silk, hides, minerals, and foods.

*O. P. Austin*, Chief of Bureau of Statistics,† showed the growing consumption of tropical and subtropical goods in America, and proved that there is a bond between the tropics and the United States. From 1870 to 1901 the consumption of sugar increased from thirty-three pounds per capita to sixty-eight; coffee from six to twelve; cacao increased six times per capita, while silks, then a luxury, are now a necessity, and rubber, but little

* "The Control of the Tropics." † *Forum*, June, 1902.

used then, is now essential. Fruits, nuts, spices, goat-skins, tobacco, cotton, gums, dyewoods and fibers are used in greater and greater quantities, the total value of importations mounting from $143,000,000 to $400,000,000. The prices are much less now than in 1870; imported sugar averaged two and three-tenths cents per pound, whereas it was five; coffee has dropped from eighteen to seven and three-tenths; tea from twenty-four to twelve and three-tenths; raw silk from five to three. The amounts of these importations increase much faster than the population. While our population increased 100%, the coffee imported increased 300%, sugar 300%, cacao 1,000%, fibers and tobacco four times, rubber five and one-half, silk twenty-four times, the greatest increase being in the raw materials needed in our factories. The actual value of these products did not increase to such an extent because the average prices were less; thus tea increased in quantity 50%, but the total value was 33% less than in 1870. We need not give more data from *Austin's* paper, as these are enough to answer his question. "Have we builded better and more wisely than we realized in our recent unsought tropical acquirements?" He shows that the $1,000,000 we daily send to other tropical countries to buy, should go to our own tropics, and thus enable them to buy from our manufacturers. "The capacity of the Philippines for the production of the fibers, tropical nuts and fruits, cacao, rice, spices, dye-woods, tobacco, sugar, and many other articles which we now import from the tropics is already assured; and if it should develop that they can also produce coffee, tea, silk and rubber, they may not only prove the great source of supply for our requirements of tropical products, but in so doing would surely grow extremely prosperous and thus become large consumers of our breadstuffs, provisions and manufacture." These Islands could produce enough hemp to drive out all substitutes now used in the world. Later statistics published by the Department of Commerce and Labor only emphasize this matter and show the enormous extent of our dependence upon the tropics. Even the list of imports is too large to quote here—and they are all valued in the millions. It is quite evident, then, that the Philippines are a valuable and necessary posses-

sion, although there are still thousands of able men who think them only a burden.

Ignorance leads to ridiculous predictions, similar to that absurd speech by *Senator White* a century ago, in which he denounced the Louisiana purchase as a curse.* It is reported that *Mr. Richardson*, of Tennessee, made a similar speech in Congress relative to the Philippines. *Webster* wished to trade our Pacific Coast for some Newfoundland fishing privileges, and *Wendell Phillips* hoped that the Indians would prevent the construction of our trans-continental railroads. Alaska was called "*Seward's* Folly," and its cost of $7,000,000 was considered pure waste. We did not appreciate its value for a quarter of a century. It has yielded hundreds of millions of gold alone, and still bids fair to make fabulous returns. We even yet do not know the value of the Aleutian Islands. The fisheries are worth millions yearly, and besides the immense grazing lands fit for stock raising, they are rich in coal and metal and have abundant water power and good harbors. As they have the climate of Norway, they are bound to support a big population in time. As it was more than forty years before the people began to appreciate the Louisiana purchase, more than forty years before they saw the value of the Alaska purchase, it may be forty years before they appreciate the value of the Philippines.

The question constantly arises as to how we are to obtain the necessary labor to raise all these tropical products; the Northern man cannot do manual labor in the fields at all, and only for a few years in shops and sheds, and the native will not work. Mexico and Africa are solving the problem of labor for mines and plantations by importing Chinese, who are the most faithful

* "But as to Louisiana—this new, immense unbounded world—if it should ever be incorporated into this union, which I have no idea can be done but by altering the constitution, I believe it will be the greatest curse that would at present befall us; it will be productive of immense evils, and especially one that I fear even to look upon. Gentlemen on all sides, with but few exceptions, agree that the settlement of this country will be highly injurious and dangerous to the United States. We have already territory enough, and when I contemplate the evils that may arise to these states from this intended incorporation of Louisiana into the Union, I would rather see it given to France, to Spain, or to any other nation on earth upon the mere condition that no citizen of the United States should ever settle within its limits, than to see the territory sold for $100,000,000 and we retain the sovereignty." (See Republican Campaign Book, 1900.)

laborers the world produces. Of course, the importation of Chinese into the Philippines is necessary for all those trades which the natives cannot carry on, and it would undoubtedly be to the advantage of the islands to import them in larger numbers to compete with the native employment. Very serious proposals are made to pass laws compelling the Filipino to work. But this, though temporarily successful in Java, is wholly impractical with us, and it has serious disadvantages in Java, where the native is practically a government slave, and is revolting against his bondage.

It seems that the conditions in the Philippines will rectify themselves in due time. The peace and high civilization brought by the Americans reduces death rates and increases saturation. The population is sure to increase to the point where there will be a glut of labor. Even if a laborer will work hard but three days in a week, and this is the limit of his strength on his present food, it merely means that when the population is doubled (only a few years hence) there will be enough workmen. We must make haste slowly, and only introduce industries at the rate the labor increases. We need not worry over it, for no matter what we introduce, there will be laborers waiting to make our sugar, rubber, hemp, and whatever else our factories demand. But, of course, the government must stop feeding the starving, for as long as a native receives free food he will never work for it. Since the above paragraph was written, we have built and operated a trolley system in Manila, almost wholly by Malay labor—the white man furnishing the brains. The combination is perfectly satisfactory.

### TROPICS DEPENDENT UPON THE NORTH

All tropical countries are quickly assuming a commensal relation to the Northern countries. Independence is so unnatural as to be impossible if both are to thrive. In the *Forum*, June, 1902, *Prof. Paul S. Reinsch* showed that dependent colonies cannot be independent and that the use by them of names and forms of machinery of popular institutions of independent peoples is a mockery. The desire of the Filipinos for independence is quite

natural, for it is a universal human characteristic, but even if possible it would be suicidal. Indeed, it would be a crime to desert these Malays, right on the eve of our mutual prosperity, as we have twice deserted the Cubans to their fate unaided, unassisted, cast off to go alone when they needed help as much as the Venezuelans do—people by the way who must be protected from themselves. To give them control is as awful a mistake as giving firearms to children. This whole article by *Reinsch* is a beautiful epitome of the application of the law of commensalism to colonial government. Its keynote is mutual aid—allowing natives to help themselves as much as possible, but protecting them from themselves and from exploitation.

*Sir Frank Swettenham*, an expert in East Indian affairs, of forty years' experience, sees no hope of the elevation of the Malay. It is a notorious fact that every one who believed that the Malay can be raised to the Aryan level of intelligence, is ignorant of the fact that the Malay is low for the same reason that horses are low—lack of brain. Most of the optimists, by the way, are newcomers who have had little experience, and they are generally teachers or clergymen, the two great classes of people under a delusion that teaching or religion is sure to raise a race intellectually. As a class, both of these professions are profoundly ignorant of the fact that if Malays could be raised to Anglo-Saxon level, then also should we be able to educate horses to take part in national elections. *Prof. Alyne Ireland*, of Chicago University, who has investigated Malasian affairs, is reported to be a "pronounced pessimist in all that concerns the improvement of the Malay."

*Colquhoun* states* that no Malay State has ever stood alone. Like every other lower race, it always deteriorates and must be assisted by a higher, so that to turn the Filipino loose to do as he likes, would be to ruin the Philippine Islands. By the side of successful Sarawak, in Borneo, where the British control, is the decayed Brunei, once a splendid State, but which the Malay has ruined. The commensal position of the Spanish Friars in the Philippines is very evident. By their superior intelligence they instituted irrigation and other works which made it possible

* "Control of the Pacific," p. 253.

for eight men to live where only one could before. They themselves benefited largely, of course, but if we do not take up their work and supply the intelligence the Malay lacks, we will see the works neglected and the population starve and diminish to its new saturation point, as it did in Ceylon when the higher Aryan type died out. Already the Spanish churches used by natives are tumbling down and no efforts are made to rebuild, and in a little while there will be no hemp or other things we need. A very fair account of the wonders accomplished by the Friars is given by *Stephen Bonsal*,* and the shame of it all is that while they were doing this civilizing and uplifting, the ancestors of anti-imperialists were exterminating a related race in America.

The lands and other properties created by the coöperation of the brains of Spanish Friars and the muscles of Malay peasants, belonged to both, and when we paid the Friars $7,500,000 for their share we drove a Yankee bargain. They deserved every cent of it, yet there are objections raised by people who see no wrong in one New York church which has acquired property worth from $50,000,000 to $100,000,000, and is morally not entitled to a cent of it, for it is the accumulation of unearned increments due to the labors of others. Indeed, this church actually exploits poor whites, while the Friars benefited the Malay. England once freed slaves by money sweated from murderous child labor, and some of our churches carry on immense charities with money derived from sweat shops. What a curious Christianity! How the Friars have been maligned by these pharisaical Christians!

Hayti, used elsewhere as an illustration of the law that civilizations built up by higher types must disappear when placed in the hands of lower races, is also an illustration of the awful results of our brutal neglect of duty to lower types which are really essential to our existence. We have wholly failed to realize that men are born dependent and unequal—no two alike—no two with equal physical or mental or social powers, and that each of us is a poor, helpless creature wholly dependent for existence upon the corporation called society. We have failed to realize that none of the lower races can manage or understand the corpo-

* *North American Review*, October, 1902.

ration we have built up, and we have thought that all we had to do was to thrust a system called a democratic government upon negroes and all would go well. We did not know that these negroes of Hayti did not have the brain. The conditions brought about are best shown by a few quotations from an article by *Wm. B. Hale,* in *Collier's Weekly:*

"The island of Hayti is nearly as large as Cuba. Its population is probably greater. It is one of the most beautiful countries on earth, while in productiveness and natural wealth of every description it far surpasses its sister isle. All tropical fruits and spices flourish; its tobacco is excellent; its coffee Belgium and France esteem the best that grows; its cacao alone would enrich a nation; its forests are capable of yielding immense quantities of rubber; the finest mahogany grows there, and other rare woods are plentiful; the precious metals, with copper, platinum, mercury, manganese, antimony, sulphur, asphaltum, salt, and phosphates, abound.

"There is probably no land on earth of equal area possessed of equal natural wealth. For two centuries it was the richest colony in the New World, pouring inexhaustible riches into the treasuries of Spain and France. Columbus, Napoleon and Cromwell considered it worth all the rest of America. Magnificent estates dotted its savannahs, mighty engineering works covered its plains, its mountains pierced by innumerable mines, and its harbors thronged with richly laden ships.

"That was in the days when Hayti was a colony, first of Spain and afterward of France. Since the revolt of the slaves and the gaining of 'independence' through a series of the most bloody and brutal wars that ever raged on earth, the island has been shunned by the ships of white men, and the negroes upon it have been abandoned to their own devices. Innumerable half-savage chieftains have wrestled for authority in it. In the eastern and less populous portion of the island—that portion which is called Santo Domingo, where Spanish is spoken—something like a settled government has been established. In the western, French-speaking and principal portion—in Hayti proper—continuous revolutions have decimated the population, devastated the land and wrecked the cities, while the state of society has drifted back until to-day it is a close approximation to primitive African savagery.

"The story of Hayti's wrecking is one of the most sanguinary, as it is one of the most lamentable, chapters in human history. It is decorated with the names of the monster *Dessalines*, the arch-brute *Cristophe*, the inhuman tyrant *Soulouque*, and relieved by that alone of *Toussaint L'Ouverture*. It is the story of the extinction of two populations and civilizations, and the horrible degeneration of a third. Where the white man had exterminated the Carib, the African slaughtered the European, and now fights his own fierce battles in a land soaked with the blood of all."

The vital interest in this whole matter is not only that we are the causes of all this frightful barbarism, but that Hayti bears a commensal relation to the United States, in that each needs the other's products and each suffers for the damage done to the other. We are being punished for our neglect of natural duty. Self-interest and the interests of Haytians themselves both demand that a stable government be formed by Anglo-Saxon brains.

What is said of the sad condition of Hayti can be also said of the other alleged republics of Central and South America. They, too, are commensal organisms necessary for our preservation, buffers between us and harm, yet we have so neglected them that we are now suffering for their products. They are wonderfully rich in all the tropical things we need. Colombia even tried to stop the course of civilization of the world in her barbarous attitude toward the Panama Canal. Venezuela is not a republic at all, but a turbulent mob without organization, because there are not brains to organize the units. Murder, pillage and freebootery dominate it from end to end. Neither life nor property are safe. Population and industries are declining. Investors are excluded just when their investments are to turn out mutually beneficial. It has brought us to the verge of war more than once. It is, then, not fanciful to picture the United States as the policeman of the Caribbean using a "big stick" to threaten the nations into decency. It is a living necessity and forerunner of more complete mutual relations in the future.*

* Judge Lambert Tree, speaking of the fact that white men cannot live in the West Indies, says:

"As the white man loses his grip the black man tightens his, and hence is perceived everywhere, substantially, negro control.

"Thus, in that precious republic, Hayti, the white-man is not permitted

Among the Mexican peasants of Indian blood there has arisen a curious but perfectly natural resistance to the American invasion. They claim that they do not want any of the things we take there to sell, and that they do not desire the material prosperity thrust on them. Their wants are very few and they are happy if left alone, so they are agitating the expulsion of Americans. They are perfectly right—if they win—but they must submit to the course of civilization, like every other lower race. The late *Mary H. Kingsley** was about the only one who keenly appreciated the reasons for the expansion of the white races. "This Teutonic race is a strong one, with the habit, when in the least encouraged by peace and prosperity, of producing more men to the acre than the acre can keep. Being among themselves a kindly, common-sense race, it seems to them more reasonable to go and get more acres elsewhere than to kill themselves off down to a level which their own acres could support." She also saw the impossibility of living in the tropics, yet the necessity of holding them for their products and to sell them goods. "Men's blood rapidly putrefies under the tropic zone." "Tropical conditions favor the growth of pathogenic bacteria." She quotes both as a rose by another name. So that it is best to stay at home, sell goods and buy food from abroad, and this is the keynote of England's policy in holding Africa. "Lancashire, for example, turns out more human beings than can comfortably exist there, so does she turn out more manufactured articles than can be consumed there."

to hold real estate, and a number of other privileges are denied him which are permitted to the black citizen. Judging from the examples of negro rule in Hayti and Santo Domingo, as well as from the social and political conditions in other of the West Indies where they are in partial control, it would seem that the negro is seen at his best where he is under the influence and control of a considerable body of white men.

"By himself, it is nearly, or quite, self-evident that he is not capable of administering government for the general welfare of the people over whom he rules. The negro is an imitator, and with the influence and example of the white men absent, racial instincts beyond his control seem to draw him back, as by the 'call of the wild.' His idea of government in the republics in the West Indies he rules over is to plunder the weak. 'Might makes right' is the rule of the barbaric, and this is the rule of those whence he sprang and toward whom he is again drifting. If the negro is left to himself much longer in Hayti and Santo Domingo, all government will ultimately disappear except that of the tribal relation. Nothing is more clear than that he is retrograding in that direction."

* "West African Studies," Macmillan, 1899.

Best of all *Miss Kingsley's* remarkable observations is the discovery (page 402) that England's policy demands that the English and African coöperate for their mutual benefit and advancement. There will be more goods sold from Lancashire and more happiness and more population, if there are more prosperous negroes in Africa to buy these goods, paying with exports. She has a curious little whimper about the rewards of killing off people. The civil servant in Africa says: "Oh, if a man comes here and burns half a dozen villages he gets honors; while I, who keep the villages from wanting burning, get nothing." The old, old rule.

In the chapter describing the law of mutual aid, we have mentioned many other instances of the dependence of all nations upon each other, and we can now rest assured that control of the tropics is not the white man's burden, but the white man's necessity. The more it is developed, the more will both white and brown man prosper.

# CHAPTER XX

## CIVILIZATION'S DEPENDENCE UPON COMMERCE

FOOD FOR SUPERSATURATED AREAS—INCREASING COMMERCE—IMPORTANCE OF TRADERS—GERMAN TRADE—AMERICAN TRADE—ASIATIC TRADE—SURVIVAL OF THE BEST WORKERS.

### FOOD FOR SUPERSATURATED AREAS

White man's increasing dependence on tropical products, of course, makes commerce in those things necessary. But the problem is far deeper than that—things made in the dense populations must be sold or it will be impossible to buy food. Trade, then, is a vital necessity without which higher races would decrease in numbers, and a condition of supersaturation would be impossible. The more we crowd together the more dependent we become upon trade. It is so vital that it has caused untold numbers of wars, and strange to say, it may eventually end all wars, for it is the tie binding together all races in that commensal relation which is to be the feature of the future. We are no longer "independent" of other "independent" peoples, but dependent upon them all, almost literally "eating from the same table."

Trade is governed by the same natural laws we have been discussing. It makes a new struggle, not one particle less severe or less brutal than any other struggle for existence. English goods must be sold, so must German and French, and so must American, and not one of these nations has gone deliberately into the world-expansion of trade without a vital necessity for it. It is said that trade follows the flag, but as a rule this is reversing the process. The merchants have led, and the natives follow.

But few people appreciate the import of this modern element of the struggle for existence, whereby urban populations are

very dense because they have engaged in making things to trade for food. The people must go where they can work best, and they can work most efficiently by division of labor in large masses, and we know how minutely subdivided are modern trades—one man doing but one little thing.

The overcrowding of men in all times has a curious effect in creating an intense antagonism to labor saving machinery. Inventors have been invariably looked upon as enemies, *John Kay*, for instance, who, about 1738, invented a great labor-saving device in cotton spinning, had to flee from England, and he died in poverty in an alien land. People presume that such an invention will deprive them of work, and so it does, at least a few, for a short time, but eventually its only effect is to enable others to do more work, make life easier and help along that ever increasing value—the price of a day's labor. Since the time when man found that he could get more meat by devoting himself to chipping flints and bartering them off to better hunters, the wage of labor has been constantly increasing, and now we can get more for a day's labor than ever before. Even a common laborer can buy a suit of clothes with a week's wages—10,000 years ago the same amount of clothing cost months of labor. The term "labor-saving" is, then, a misnomer and should be abandoned, for the ultimate result is increase of product and increase of wages.

It is said that forty years ago it required four hours and thirty-four minutes' labor to make a bushel of corn; now it is forty-one minutes. The cost of this labor, then, was thirty-five and three-quarter cents (thirteen cents per minute), now it is ten and one-half cents (twenty-five cents per minute). That is, for a day's work the modern man compared to his grandfather makes nearly seven times as much food and is paid twice as much for doing it. In the same way a bushel of wheat in 1850 required three hours to make, but now only ten minutes, and the cost was seventeen and three-quarter cents, now only three and one-third cents. Formerly, the laborer received one-tenth of a cent per minute, but now it is one-third of a cent. The laborer has three times as much for his work and makes eighteen times as much goods. This can be followed into every line of work and

the same results follow—more product per day and more pay per day but less pay per piece. The result is that fewer men are required on the farm, and though our farm products are tremendously increased in fifty years, wheat six to eight times, corn four, oats three, cotton five, and wool six, yet the rural population has only doubled. Men born on the farms must go to the city. They must engage in manufacturing, transportation and selling.

### INCREASING COMMERCE

The struggle for trade, then, is very old, because civilization has always created needs which could not be filled locally. For instance, the prehistoric lake dwellers of Switzerland had implements of stone not found in Europe—the nephrite crystal being found only in Egypt and China—so they must have had commerce with the East 6,000 or even 12,000 years ago.* It is now believed that the struggle for the possession of the trade routes of Southern Asia was the cause of all the ancient wars radiating from Mesopotania. *Jos. Jacobs*† clearly shows how the itching for the Eastern trade of Venice, by means of which she became powerful, was the basis of all Portuguese and Spanish discoveries, and that the French and Dutch and English, by stealing into this new ocean traffic, at once became world powers. Deprivation of its trade delayed German nationalization.

Great Britain secured the Eastern trade as she had more native born and "natural-born" seafaring men than any other nation. It was to secure a market for opium that led to the Chinese war, and to secure a market for tea and other Indian products also caused a war in Thibet. The Thibetans consume millions of pounds of tea annually and are compelled to buy it from China whether they desire it or not. It is to be survival of the fittest in this case, and a justifiable measure. If the English win, the Thibetans will drink tea from India and not that from China.

Great Britain's final dependence upon trade is shown by the Suez Canal traffic. In 1902, 3,708 vessels used it, and of these

* S. H. M. Byers, *Harper's*, February, 1890.
† The Story of Geographical Discovery.

2,165 were British. Two-thirds of the present tonnage is British, the rest being mostly German, French and Dutch.

The electoral address of *Lord Rosebery*, at the University of Glasgow, November 16th, 1900, explained these laws of expansion. He showed that the struggle for existence among nations has become more and more commercial, and threatens Great Britain's safety. He pointed out the awful error it was for England to fight the thirteen colonies instead of admitting their representatives to Parliament. It is said that in March, 1900, two and three-tenths per cent. of British artisans could not get work; in 1901 it was three and six-tenths per cent.; 1902, three and seven-tenths per cent.; in 1903, four and three-tenths per cent., and in 1904, six per cent. This indicates overpopulation, of course, but it is generally believed to be due to industrial depression, that is, there would be less overpopulation if they could sell their manufactured goods as well as formerly. It is partly a result of the American trade invasion. If it continues the population must decline.

In some grades of iron ore Great Britain has only twenty-five years' supply, and the United States has seventy years' supply of first-class ore. Germany has more in sight than America, but is using it up very rapidly. The iron ore in sight in Spain, Russia, Sweden and Austria, and the tremendous stores in China, would keep England, Germany and the United States supplied for several centuries, and this trade will eventually be a vital matter. It is said that our anthracite coal at present rates of exhaustion cannot last seventy-five years, and the other supplies in the world are insignificant except those 40,000 square miles of it in China. Anglo-Saxon civilization will soon depend on this store. To be sure we will eventually use all the water power now going to waste, but that will require moving all our factories from the neighborhood of the coal and oil fields to the vicinity of the water falls. Though that time is very far off, yet there is considerable fear that the invention of methods of using this power will not be rapid enough, and that as our hard coal disappears we must import that of China. The coal and iron which Japan finds in Manchuria, will pay the costs of her late war several times over.

### IMPORTANCE OF TRADERS

Until a century or so ago the only public benefactors were those who fought for the public. Hence, public honors, rewards, titles and estates were awarded to soldiers, and to no others. The nobility are the descendants of a warrior class. In England they are largely descendants of conquering invaders who divided up the land among themselves—a system upon which the present empire is founded, and which cannot be changed without anarchy. They have a hereditary ruling class, specialists in statecraft, unfit for other labor, yet of wonderful ability in their calling—preservation of the nation. A change has come with the nineteenth century. Formerly, traders lived because they were protected, as commensal organisms, but they did nothing to preserve the nation. They were tolerated by the ones who did risk their lives for the public. They were despised, of course. At present, the British Empire is based upon manufacturers and trade. Its traders and factory owners are making it greater and greater. There is less and less need of soldiers, who are already a very small percentage of the people. Hence, there is no longer any disgrace in being a trader or manufacturer, and these makers of Greater Britain are now given the honors, titles and estates once awarded to soldiers when they were the only public benefactors. Traders and manufacturers must now be taken into the Parliament and Cabinet where their knowledge is necessary for public guidance. Cabinets once composed of soldiers are now composed of all classes who build up the State. A new aristocracy is in process of evolution. Its progenitors, who are to be ancestors of the future nobility, are building up the Empire as surely as the soldiers of former centuries. The admission of *John Burns* to the Cabinet was a step further in advance, for it is a recognition of the economic value of the laboring man upon whom the state now rests. Formerly, the farming class was the foundation—now it is the manufacturing. Parliament at last is being evaded by those who are building up the Empire, and soldiers are being elbowed to one side.

## GERMAN TRADE

In the *International Monthly*, May, 1902, *Dr. Paul Arnot*, of Berlin, has described Germany's position and explained it upon the laws stated in this book, and stated it so well that a review will be profitable. While he has given facts he has failed to comprehend the basis or first cause—overpopulation—and he thinks that overpopulation will not come for several centuries, whereas it is the basis of all our evolution. Indeed, it is not at all unlikely that Germany was part of the theater of those struggles which evolved man. Unfortunately, it was the fighting ground for that terrible struggle with the flood of Asiatics which once overwhelmed the whole of Europe. Little States arose here and there, though occasionally they united in a loose union easily broken. Then religious difference between the different types was the ostensible cause for those bitter feuds and wars which really resulted from overpopulation. Wave after wave of emigrants flowed, south, west and east, and yet the struggle at home was intense. Tribal hatreds prevented organization into a union without which they could not take up their share of ocean traffic, which was to bring food and take away factory products of the surplus who otherwise had to migrate or fight for room.

Finally, they were welded into a mass, by "blood and iron." The surplus which had not room on the farms worked in factories, as they could sell abroad. In a century, she passed from an agrarian to an industrial nation, whereas then eighty per cent. were farmers—now it is only thirty per cent.—and though she has more acreage and twice or thrice the yield per acre, she must import food. Her exports were once solely agricultural, as that was all she had to sell—now they are mostly manufactures. Her imports were mostly manufactured goods, now they are mostly foods and raw materials for her factories. If she cannot sell her manufactures to buy food, she must diminish in population. No wonder she is struggling frantically for markets. No wonder her city population is so great. No wonder she dreads the time when we have no foods to sell her because we will use them at home.

*Doctor Arnot* makes one mistake when he thinks that Germany's commerce is greater than ours. He figures as foreign all the trade which Germany has with the rest of Europe, but the identical trade between our States he calls domestic. Now, there are two profits in a bargain; one each to seller and buyer, because it is advantageous to both. When Maine sells to California, the United States gets both profits, but when Germany sells to France she gets but one. Thus, our trade is leaping by bounds whereas the foreign commerce does not show it. He shows that the bulk of German trade is with Europe, just as the bulk of our trade is continental. He places us in the third rank of traders, whereas we are easily at the second place.

The keynote of his prediction of the future is *international commensalism*, due to the fact that countries will devote themselves to that which pays best, but they are already in that condition.

### AMERICAN TRADE

America's commercial invasion of foreign markets has been carefully investigated by *Mr. Gilson Willets* and described in a series of remarkable articles in *Harper's Weekly*, 1904, to which the reader must go for details. We need mention here only those facts which show such serious supersaturation in Germany which in one year (1903) took $75,000,000 worth of our corn, dried fruits of all kinds, and even grapevines, and many millions of dollars worth of meats in spite of the prohibition of our canned meats and sausages. She takes immense quantities of our coal, the Bavarian Railroad using Ohio coal exclusively. Philadelphia locomotives, Chicago cars, tobacco, furniture, typewriters, sewing machines, lumber, agricultural implements, hardware, clothing, hats, shoes and machinery and electric appliances flood their land, our oysters, smoked fish, lard, peanuts, popcorn and syrups are eaten, and some of our skilled workmen manage their shops. Is it any wonder that they are seriously alarmed with the thought that if they lose their foreign markets for those goods, which they formerly made more cheaply than we, they will not have money to buy, and starvation or emigration result?

The tenor of all utterances from Germany is to the effect that

the Monroe Doctrine is being strained to interfere with her South American trade, and that this interference may in time be a cause of war, and to this end her navy must be increased. Nevertheless, war would be worse than peace in this case.

*Frank G. Carpenter* (Washington *Star*) says:

"Are the Germans preparing for war with the United States? I think not. They are jealous of our commercial supremacy and in response to the agrarians have enacted a tariff which may affect our trade. They would like to overthrow the Monroe Doctrine and have a chance to colonize and develop South America, but they have no idea of attempting anything that might bring on an American war. Indeed they realize, for the first time, something of our resources and power. They know that they are dependent upon us for food, they know also that we are among their best customers and they claim to be the friendliest of our friends on the European continent."

France is not getting spheres of influence for colonization, for the conditions are exactly the reverse. The stream is and always has been into and not out of France, and depopulation is impossible in such a rich country. Races from more vigorous climates are clamoring to invade France now as they have for thousands of years, and will go individually even if the army prevents such wholesale invasions as formerly. France is importing food because supersaturated, and she must sell something to pay for it, and is worried over the possible loss of trade.*

* "The danger is already at our threshold and is making itself felt. Brutal figures prove this fact most conclusively. A revolution which will change the commercial balance of power is taking place before our eyes. Until recent years the Americans have been the best customers of European industries; they are now our competitors, and in very many branches have beaten us in the world's markets.

"Gradually the Americans are pushing their way into the British colonies. The last railroad built in India has American rails. American manufacturers export their iron and motors, their machinery and galvanic wires to Cape Colony. Egypt, too, has Philadelphia bridge builders on the scene. Three hundred railway coaches have found their way from New Jersey into the land of the Pharaohs, and electrical tramways are forged in the foundries of Pittsburg to connect Cairo with the pyramids. Even Europe is not safe against the invasion of American goods. Russia, France, Germany and Italy must pay tribute. England herself buys American locomotives, steel rails, paper ware, railroad coaches and even coal. Sheffield, the home of the steel industry, has been dethroned by Pittsburg. It would be frivolity itself to remain indifferent to the expansion of this leviathan people." (Geo. Wenlersee, Paris, *Grande Revue*.)

*Mr. Frederick Emory*,* Chief of Bureau of Foreign Commerce, in the State Department, showed very clearly the gradual evolution of our foreign trade in recent years, and that the United States has only just become a world power from this reason. He calls attention to a series of articles in the London *Times*, beginning January 4th, 1899, in which the writer has analyzed the powerful economic forces at work for years preparing the way for our expansion. Political forces were not at work until the last. The war with Spain was like exploding a mine built up by years of labor; it seemingly accomplished a change of policy, but it no more did it than did the child remove the obstructions of Hell Gate by touching the electric button. He shows also that interference with our West Indian trade and the future Panama Canal and the necessity of forcing incompetent Spain from this hemisphere, were more powerful than sympathy with Cubans, though it was a play upon that sympathy which accomplished what trade wanted and could not get so quickly. *Mr. Emory* truly says that commercial expansion lies at the root of acquisition of Porto Rico, Hawaiian and Philippine Islands, though we have a multiplicity of other causes in each case. Before this *Mr. Richard Olney*, from his knowledge of State matters, called attention to the positive necessity for expansion. His article† is almost prophesy, for he showed how we must take part in world affairs or die. *Mr. Blaine's* conception of reciprocity seems "divine inspiration," yet it was only appreciating the modern struggle for existence. From now on, if Americans in those teeming millions of the city factories are to live, their goods must be sold abroad, and the army and navy are but tools the nation uses to help keep these foreign markets, and preserve the nation. Reciprocity treaties are only temporarily shelved. The policy of national isolation is in its death throes. *President Cleveland* could not keep out the Hawaiian Islands.

In another article,‡ *Mr. Emory* showed that our importations are becoming more and more the mere raw material and less manufactured goods, as though we were on the road to needing raw materials from the tropics to make the goods we must sell.

* *Munsey's*, January, 1900. † *Atlantic Monthly*, May, 1898.
‡ *Popular Science Monthly*, April, 1901.

Every new report from our Bureau of Statistics shows this general trend of increase of trade, but the details do not concern us here.

### ASIATIC TRADE

We are drawn into the Asiatic question by natural law, in spite of our efforts to keep out. We find that coaling stations, naval bases, strong garrisons, Hawaiian Islands, Samoan harbors, Philippine Islands, Chinese trade and control of the Pacific Ocean are positively necessary, and have come to us notwithstanding the opposition of some of our highest types of statesmen. It is law, the necessary step for future national preservation in the international struggle for existence. Whether or not our export trade to the Philippines will pay for their expense is of no possible consequence, for even if we need their exports the Philippines are but an item in the whole. Some men of commercial acumen, believe the trade to be of great possibilities, others sneer at it, and no one really knows. They have already absorbed several hundred millions of our dollars, and it may be a low price to pay.

Trade is really the basis of Japanese national movement. Of course, overpopulation makes it possible for them to embark on the wonderful industries of which they are so proud. It is generally assumed that Japan wants to spread her population into new territories, but they are not colonizers in any sense of the word—indeed, have miserably failed where they have tried it. Japan fought for Korea and the adjacent lands because it had been her legitimate trading ground for centuries, and the presence of Europeans was threatening her prosperity. It was always stated that she dreaded being overwhelmed, but that could occur only after destruction of her trade had reduced her population, for no nation can invade such a populous land. She did not wish to repeat the history of Ireland, where interruption of trade has so reduced the population that invasion has been a simple matter. After the close of the Russian war Japan began an immediate campaign to invade the markets of the world, and this movement brought her to the verge of war. Luckily, her statesmen realized the impossibility of success, at present,

and the utmost necessity for friendship. One reason for the present policy is the fact that her expansion has made America a base of supplies rather than a competitor.

Publicists constantly magnify the possibilities of foreign trade due to opening up new fields. China is being invaded, but there are few of her hundreds of millions who can afford to buy even if they needed our goods. Indeed, the introduction of machinery may actually lessen the trade by creating new competitors. Already the Chinese are making steel rails for their own roads, and the more agricultural machinery imported, the more farm laborers will be free to work in factories.

### SURVIVAL OF THE BEST WORKERS

It seems that, like all other struggles, the fight for trade is destined to result in success to the most intelligent nations, for they are the ones who will be able to keep in the advance—all others being mere imitators. Already, the northwestern corner of Europe, by reason of its brains, is in control of the manufactures and trade of the world. It begins to look as though the Aryan is to be the future manufacturer, and that the demand in the tropics is merely for machinery and other aids for producing tropical things which they alone can supply to Arya.

The importance to Europe of the South American trade is explained by the fact that this new country is really an outlying farm which feeds the city people of the old world, and which is destined to feed them more as they become more supersaturated. Argentina, for instance, is one of the greatest sheep countries in the world, perhaps the greatest. It has 110,000,000 sheep now, and can support 300,000,000; it has 28,000,000 cattle, and can raise 100,000,000. Its wheat competes with ours. It has vast freezing establishments from which immense quantities of frozen meat flow out to Europe. Uruguay has also a great food supply for sale, being a fine wheat and cattle country. Hence, we see that almost all the ocean trade is carried on directly between South America and Europe. It is doubtful if we ever will have as large a trade with our Southern wards as Europe now has. At present we control only one-tenth of the trade of Cen-

tral and South America, and many writers state that we would have practically nothing were it not for a few American "colonies" in Mexico and the West Indies. All America seems to be drifting toward a condition of supplying raw materials and food to Europeans. The high prices of everything in America at present prevent any great interference with this movement. Of course, "the law of surplus" permits our manufacturers to run their machinery a little more than necessary to supply the home demand and sell the surplus abroad cheaper than the average cost and still make a profit. We can buy many American articles abroad for less than we can at home. The English manufacturers do the same. It is almost amusing, by the way, to hear "politicians" blame free trade in England and protection in America for this natural law.

"All roads lead to Rome" was the condition of affairs when that city was so supersaturated that foods poured into it from all directions. Of course, there were numerous political necessities for the roads, but it is wished to emphasize the food matter because an identical state of affairs exists as to the northwest corner of Europe, though now in ocean traffic. It is the Arya of the Ancients—the blond area of the world—the brainiest area of the world—and foods are pouring into it from all directions. "All steamships go to Arya," would be a fanciful way of stating the problem. The easiest way to get to any corner of the world, is to go to England and take the next boat. Our mails to South America are so slow that it would save time to send them all to England for transfer. There is a great outcry on the part of merchants and manufacturers at the difficulty of sending goods to South America, and we now see the reason. The trend of the world is to send food and raw materials to Northwest Europe and bring back manufactured goods. In the struggle for existence, the prize—survival—has gone to the brainiest ever since the first mammals replaced the huge saurians in past geological ages. It is therefore not at all certain that the trade expansion of the United States in manufactures is to continue indefinitely.

Every part of the world shows a tendency to produce that thing which brings them in the most money with which to buy food. Food is bought wherever it is cheapest, either at home

or abroad. In time some places will be densely packed, and yet raise very little food, while others will do nothing except raise food. All parts of the world, then, become dependent upon each other, each doing some thing which the others cannot do. War will be a disaster, instead of a means of increasing trade. Even now neither France, Germany, nor England, can afford to cut off food supplies from America. One hundred American commerce destroyers could stop a war in six months—and they would be the most efficient means of preserving our peaceful relations with Europe. Only a fool wants to injure our navy. It is our salvation pending that slow course of events which is making us a political dependent of Europe. We are materially dependent now, for if war would stop the food exports the farmers could not sell it, and they could not buy other things, and the factories would shut down. Trade is our salvation already.

# CHAPTER XXI

## SEMITIC CIVILIZATIONS

PRIMITIVE EUROPEAN RACES—SEMITES AND MEDITERRANEANS—EURAFRICAN LANGUAGES—SEMITES IN ASIA.

### PRIMITIVE EUROPEAN RACES

The history of ancient civilizations always shows a mutual dependence of higher and lower races, so that our Philippine problem is not a new thing, but is as old as civilization itself. We cannot understand its modern form without analyzing the results of the migrations of Semites and Aryans, for we may rest assured that nature will do as she has done before.

We have shown that all the long-headed types of Europe and Africa are now looked upon as one race—the Eurafrican. The blonds found around the Baltic constitute the Aryan branch, and the olive or brown types clustered around the Mediterranean have been grouped into a distinct non-Aryan branch. There is not the slightest doubt, also, that very many of the Italian peasantry are survivals of the type called paleolithic. They often show rather prominent cheek bones and sometimes the jaws protrude almost like the negro. They are very lacking in intelligence, and are but little better than savages. We see them also among Greeks and Spaniards. Indeed, nowhere except along the Mediterranean do we find many remnants of this primitive paleolithic man.

Anthropologists are giving up the old idea that the next type, or the neolithic man, invaded Europe and killed off his predecessors. He originated *in situ* by ordinary natural selection of the fittest types of prior ages. The evidence is also conclusive that neolithic man once inhabited all of Europe, for his remains are found everywhere. The modern forms are called the Mediterranean race, with long, oval face having no special promi-

nence of cheek bones or jaws. It is quite common in the British Islands, where it is called the "old black breed," and it is found in some purity among the French peasantry.

Prior to the Aryan invasions there were high civilizations all around the Mediterranean. We can look upon the conditions as resulting from a migration of paleolithic men from the North, who were then submerged by later neolithic arrivals who had developed higher intelligence and who proceeded at once to build up the ancient civilizations which repeatedly replaced each other on the same spots. We will use the word Semitic to refer to this higher ruling Mediterranean type. The Hebrews were a mere branch. The Jews, by the way, are religious sects, and the word must not be used in an ethnic sense at all, as we will later explain.

*G. Sergi*, Professor of Anthropology, University of Rome, has described the Mediterranean race in his work of that title. He shows that all the peoples around the Mediterranean were of one type, that is, they are short, swarthy, long-headed and have certain shapes to the head found in no other race. He also shows that this type was anciently more widespread in Europe and that the Northern or Nordic skulls (Scandinavian) also have a wonderful resemblance, as though the two types which we call blond Aryan and brunet Semitic were originally one, but had developed different characters by reason of climatic differences. The megalithic prehistoric monuments distributed all over Europe and Northern Africa seem to be the works of this Eur-african race in neolithic times. He shows that the ancient Mediterranean civilizations were not Aryan, and were not borrowed from India. He gives a wealth of details showing strong Semitic traits in every branch of the Mediterranean race.

The Mediterranean race includes (1) the ancient Iberians of Spain, (2) the Ligurians of ancient Italy, including the Etruscans, (3) the Pelasgians of Greece, whom *Homer* and *Herodotus* described as an extensive race also inhabiting Asia Minor, Thrace, Illyria and Italy, though *Thucydides* and *Strabo* used the name for one of the numerous kindred tribes like the Leleges and Dolopes, the Helots being merely the branch conquered by the Spartans and kept in subjection by occasional massacres,

(4) Ancient Egyptians, (5) Berbers, (6) Canary Islanders, and (7) perhaps, also, the Hittites, though other writers think they were Turanians.

### SEMITES AND MEDITERRANEANS

Slowly, then, the evidence is establishing the fact that the classical Semites were originally a long-headed dark race like the neolithic man. If they ever evolved the blondness of Teutons before they migrated south, they lost it by a later reversal of the evolution. It is quite likely that they never were blond, but started south very early in neolithic times before the Aryans evolved blondness, and, indeed, before they learned to speak an inflected language, for the Semitic and Aryan languages are so fundamentally different in inflections that they must have evolved independently, even if from a common primitive tongue. The Aryans were evolving Aryan speech and Aryan blondness after their own migration northwards with the retreating ice cap and while they were evolving that larger brain which distinguishes them from Semites. It is probable that when these Semites arrived near the shores of the Mediterranean, they found earlier paleolithic arrivals, who, like themselves, were dark, short men with long heads, who had less brain, so that they were easily conquered and used as domestic animals (serfs or slaves). They must have lost their primitive languages as they were forced to speak Semitic dialects. We have here the conditions necessary for rapid evolution of civilization.

For some thousands of years, then, the Mediterranean was peopled by types exactly like the present, only they talked Semitic or more primitive tongues, as they still do on the southern shores. It cannot be doubted that the conquering brainy Semites were not content with staying on the northern shore, but flowed over to Africa, Egypt and Asia Minor, Palestine, Arabia, Mesopotamia, forcing their language upon earlier arrivals wherever they went. They found civilizations already in a high state in Egypt, Asia Minor and Mesopotamia, built up by Turanian broad-heads who had flowed down very early from Central Asia, conquering, enslaving and civilizing just as the Semites

did in Europe. They had but little difficulty in conquering and Semitizing these less intelligent Asiatics and making them talk Semitic speech all the way to the confines of India. *Professor Hilprecht* has been reported as stating that his excavations at Nippur reveal remains of sixteen cities, one built upon the ruins of another, and *Professor Cornill*, speaking of the Babylonian records of 3800 B.C., says: "And even then the land had already a long and eventful history behind it. Sargon already bears a genuinely Semitic name. But there can be no doubt that the primitive Babylonian civilization, which has given even to the present day the names of the seven planets, and of the corresponding days of the week, the division of the circle into 360 degrees, the division of the year into twelve months, the week in seven days, the day in twenty-four hours, and the hour into sixty minutes, is older than the year 4000 B.C., and derived from a non-Semitic people. This people called themselves Sumerians, and by their language belonged to the Finnish-Turkish-Tartar race, the so-called Turanians." Recent excavations in Mesopotamia are bringing all this early Turanian history to light. "This highly civilized but unwarlike people was overwhelmed by a great Semitic migration," of a more powerful and energetic race, adopting the civilization, even the cuneiform writing, but carrying all of it on to further development. Egyptian civilization was built up long before 5500 B.C., by Asiatics, probably from Mesopotamia, but by 3500 B.C., the language was Semitic with many Sumerian words (*Hommel's* "Civilization of the East"), and by 1900 B.C. the Semitic conquest of Southern Asia was complete and this race was "the sole bearer of civilization for the next thousand years."

We must then consider the Mediterranean in early times as a Semitic lake, just as it later became an Aryan lake—Greek, Roman, Venetian, French and now Anglo-Saxon. It was ruled by Semites, though the lower subjected earlier arrivals were not Semitic, just as it is now ruled by Englishmen, though the subjected types are not English. *M. Victor Berard** shows a very early Semitic cult in Greece. They dominated, exploited and civilized it. He believes the Odyssey itself is nothing but a

* "The Phœnicians and the Odyssey."

Phœnician coaster's log book and the Phœnicians were the seafaring type of Mediterranean Semites. It was much later put into verse by the Aryans who flowed into the country, building up the Homeric Greek civilization. "The Phœnician navigators, who very early had sailed over the Mediterranean, brought back the stories of their voyages, and wrote them down on parchments, some of which have been preserved in their temples. *Homer* probably knew of these voyages and descriptions, and had access to these parchments, from which he reconstructed the voyage of the celebrated Ulysses."

The recent excavations in Crete have also raised the belief that *Homer's* songs were traditions of these dead civilizations wafted long afterward to the rude Aryan invaders of Greece. Indeed, it is not unlikely that many of these traditions are based on actual historical facts. The Cretan civilizations, by the way, all arose *in situ* each on the ruins of the last, and all were due to the Mediterranean races. They date back 4,000 years and are based upon a more primitive neolithic culture which had existed at least 6000 years, and, moreover, they were independent of the civilizations of Southern Asia, which antedated them at least 2000 years, if not more.

The excavations of *Doctor Schliemann* and others around the eastern end of the Mediterranean, have proved that "man in Hellas was more highly civilized before history than when history begins to record his state; and there existed human society [non-Aryan] in the Hellenic area, organized and productive, to a period so remote that its origins were more distant from the age of *Pericles* than that age is from our own. We have probably to deal with a total period of civilization in the Ægean not much shorter than in the Nile Valley."*

The discoveries relative to these early Mediterranean cultures are coming so rapidly, that it is already possible to separate them into various distinct periods, such as Mycenean and Minoan I, II, III, etc., but they are all distinctly lower than the later Aryan cultures. Indeed, the conditions of anarchy in modern Crete when Aryans lose control, would rather indicate that the ruling type in these ancient civilizations were really

* D. G. Hogarth, quoted by Clodd, "The Story of the Alphabet."

Northern invaders, and that modern Cretans are of the ancient conquered type.

### EURAFRICAN LANGUAGES

Philologists have devoted much labor to the problem of proving some relation between Aryan and Semitic roots, and though there are some correspondences, they merely indicate that if the two were derived from the same source it must have been at a very early period long before the two languages evolved their inflections. The relationships between Hamitic and Semitic tongues show a more remote separation. Nevertheless, these correspondences, together with the ethnic evidence that all the peoples originating these tongues were of the European or long-headed branch of the human race are quite significant of European origin of them all. Even the Hottentot and Bushman dialects in South Africa have been thought to be related to the Hamitic family by reason of their possession of grammatical gender, which does not occur in any other languages except Aryan, Semitic and Hamitic. The Bantu languages of South Africa, by the use of prefixes for grammatical changes, different from nearly all other known languages, show that they departed from Europe long before the evolution of any language except a very primitive one. To the north of these Bantu languages, between them and the Hamitic, are hundreds of languages which, so far, have defied classification. Perhaps they are survivors of the eddies of the earliest human currents from the North. *Renan* states* that the language of the Libyan peoples was "profoundly distinct from the Semitic languages, though having traits of resemblance to them." Berber languages have marked Semitic affinities and even the Hittite, though not Aryan or Semitic, may have been Hamitic. So there is a relationship in all these African and Mediterranean tongues.

It is suggestive that all the languages spoken by the broad-headed peoples, from the Basques to the American Indians, are either monosyllabic or agglutinative, and none approach the Semitic or Aryan in evolution, and they, therefore, indicate less brain evolution.

* *La Société Babere, Revue des Deux Mondes,* 1873.

The affinity of all the Mediterranean types clarifies the obscure conditions in Spain. This semi-arid peninsula has never been a great prize, even though many Aryan waves did flow over the Pyrenees into it. Being unfit for this climate they have died out more promptly than in Greece or Italy, and they never had time, therefore, to evolve a characteristic civilization, like the latter peninsulas. We must except the Northern mountains which are now the only places where we find blond Spaniards. All the South was Semitic, and is to the present day peopled by the dark, long-headed, short race.

When the fanatical Semitic Sarcens flowed West in Africa and across into Spain, they found it fairly easy to force their language and religion on the people of similar blood. But they could never subdue those Northern blond Christians whom we presume were remnants of Aryan invaders. These mountaineers are still the unconquered liberty loving men they always were. Hence, the war of centuries to expel the Moor, was really a conflict of higher Aryan against lower Semites and had to result as it did. But the Moors were not wholly expelled, even if their religion and their government were, for their descendants are in Southern Spain even yet, and the Spanish language has retained such an enormous Semitic flavor, fully twenty per cent. of its words being Arabic, as almost to warrant calling it a hybrid Semitic and Aryan speech. In Northern Africa the Arab type of man has not survived so well, while the original type of Berber is reasserting itself, but this is Semitic in blood though Mohammedan in religion.

In an article on the Decadence of the Moors* *A. J. Dawson* says: "The cave-dwelling Berbers discovered in possession—and used with consummate generalship as soldiers by the men who, fleeing from the Mecca of Mohammed's day, founded a Moorish dynasty—remain to-day the same hardy, rock-scaling semi-savages who resented the Moslem intrusion of a thousand years ago. They are precisely the same men, living in precisely the same way, and they are occupying themselves at this moment as they were occupied then; the same blind, fierce resentment, the same dogged, savage insurrection, the same methods

* *The Fortnightly Review.*

of making both felt. But with the Moors proper, the ruling people of Morocco, matters are far otherwise. Young *Abdul Azziz*, the present Sultan—prisoner, one had almost written—at Fez, is scarcely more capable of dealing with the rebellious mountaineers and fanatics of his realm after the crushing, masterful manner of his ancestors than he and his subjects are capable of retaking and occupying the capitals of Andalusia." His recent defeat by his brother was thus clearly prophesied.

Thus, it is said that Africa begins at the Pyrenees, and we should add that Greece, Southern Italy, Asia Minor and Palestine are also parts of Semitic Africa. The whole history of Christianity in Spain is what we should expect from Semites, capable of savage fanaticism—one century for Mohammed and the next for Christ. The Holy Inquisition was like a Mohammed institution, fanatical as the dervishers of the desert further South.

### SEMITES IN ASIA

In Turkey and Persia the Turanian blood, as well as the Aryan seems to have disappeared from the ruling types—the Shah and Sultan are typical Semites, exactly as in Ancient Chaldea. There is, by the way, an enormous lower stratum of Turanians in Western Asia—Asia Minor, Syria, Palestine and Persia, Arabia and in Egypt. This stratum of broad-heads is probably the same as the ancient serfs, slaves and laborers which formed the foundation layer of every ancient empire from Chaldea to Persia and Media—indestructible though overlaid by Semites. Some of them are Jews, some Mohammedans and some Christians, but their type differs in no respect from pictures on old Chaldean, Babylonian and Assyrian monuments.

One little tribe of these Eastern Semites, the Hebrews or Israelites, was destroyed as a nation in 586 B.C. by the Chaldean Semites, and in their lowly captive condition in Babylon, they evolved the Jewish religion.* This religion was so adapted to the captive, the slave and the lowly, it was so spiritual and so little mundane, that it strongly appealed to that class of people. So the amount of proselyting was enormous, and in a few cen-

* Prof. C. H. Cornill's, "History of the People of Israel."

turies there were Jewish synagogues from Babylon all the way to Spain. The converts were of every blood and nation, Semites and Turanian. *Cornill* says of the Israelites in captivity, when their nationality was completely subordinated to religion, depending upon God alone, that a wonderful transformation took place "which makes of the Judean State a Jewish church, of the Israelitish people a Jewish religious congregation. For the history of religion there is perhaps no other period in the history of Israel of equal importance, and significance with the half century of the Babylonian exile, from 586 and 537 B.C."

*Ripley* states that the Jewish people were originally dolichocephalic; therefore, they must have been of Western origin. *Dr. Maurice Fishberg** says the true type of Semites is African, like the Arab Bedouins, as seen on Assyrian and Egyptian monuments, but the Arabs are merely part of the Mediterranean race. The modern Jews consist of nearly ninety per cent. Asiatic converts (Ashkenazim) and less than ten per cent. of Semites (Sephardim). There are also subtypes showing Teutonic and Mongolian blood, indeed, in later studies *Fishberg* has shown that through intermarriage the Jews resemble the peoples among whom they dwell, and are of the Alpine type in Eastern Europe and Mediterranean type in the South. Climate preserves the fittest types of Jews as well as Gentiles.

Now, this high Semitic or Mediterranean or neolithic race was not content to remain in Southwestern Asia. It overflowed India very early and, here, too, it became the ruling type and remains such to the present day. The upper-class Hindoo often has a long head with an oval face. He cannot be distinguished from a Greek, Italian, Spaniard or Portuguese—indeed, he is of the same race. He was conquered later by Aryan invaders, but they have died. Consequently, the highest civilizations of India —excepting in the short period of Aryan supremacy—have always been of the grade of those ancient ones in Mesopotamia and the Mediterranean basin in pre-Aryan times. This type can rise no higher by its own efforts. Nevertheless, it was always the upper or ruling class. In India, the peasantry is still largely Turanian, but in Southern Europe it was of the low paleolithic

* *Science*, March 20, 1903.

type perhaps, as it is to some extent yet. Thus differences of social and political position are racial matters after all.

How much further these Mediterranean people wandered is wholly unknown. They may have percolated into China and even Japan, by the trade routes which have stretched across Asia for many thousands of years. There is a strong infusion of long-heads in the upper classes of both China and Japan, and no one seems to have the faintest idea of their origin.

It is reasonable to suppose that some of these men have ventured out of India, time and again, in the 3,000 or 4,000 years they have lived there. At the present day, Arab missionaries wander as far as the East Indies; native Indians could have done the same, yet there is no sure evidence that they did. All the old alphabets of India were of Semitic origin and were carried by Malays as far as the Philippines, but they do not indicate Semitic infusion any more than the Sanskrit words in Tagalo indicate Aryan invasions. Nevertheless, among the Moors of Mindanao there are many types which closely resemble the long-heads of India.

It seems, then, that all these ancient civilizations, immediately preceding the Aryan in that broad belt of the earth extending from Gibraltar to Farther India, were built up by that part of the Eurafrican race called the Mediterranean. It is better to call it Semitic, because that word, though characterizing merely a family of languages, is also descriptive of the grade of culture which these peoples were capable of creating.

The point to the whole matter is this—the Mediterranean race is always the ruling class when it comes in contact with Asiatics —a law which may even be true in Japan and China, if it is possible that the long-heads in that part of Asia are descendants of European immigrants. The significance of this in America will appear later.

# CHAPTER XXII

## ARYAN CIVILIZATIONS

EARLY MIGRANTS—THE GREEK ARYANS—ROMAN ARYANS—INDIAN ARYANS—MATHEMATICS—RELIGION—MODIFICATIONS OF ARYAN RELIGIONS—ARYAN RULERS—HALF-CASTES—ARYAN LANGUAGES.

### EARLY MIGRANTS

We have now come to the most important part of any discussion of modern migrations and modern expansion for the control of the world. The course of events for 3,000 years or more has been steadily and persistently in the one direction of establishing Aryan civilizations in every nook and corner of the earth. They were first built up by migrants from Northwestern Europe —the most intelligent race on earth—as we have already sketched in a general way. But they died out, as unfitted for the climates to which they migrated. The new movement is in the direction of keeping up these Aryan civilizations by controlling them from the Aryan home in Europe. It is territorial expansion, not for colonization but for the mutual benefits of Aryans and the lower races. It is not a new movement, for it dates back at least three centuries. Failures resulted here and there, as when the Mediterranean type of man assumed control —but now, everywhere, the world is dropping piecemeal into the control of the race having the best mental equipment for the work—the blond Aryan occupying the northern part of Europe.

We must again retrace our steps and learn to what an enormous extent have ancient and modern civilizations resulted from the mental labors of men from Northwest Europe. Investigators are, one by one, drifting to the opinion that in the millennium prior to the Christian era, the world owed a very great amount to

this Aryan type of man. Of course, each branch as it invaded the South, picked up what civilization it found. Thus, *Gustave le Bon* has shown that India and Greece did not borrow from each other, though they are closely linked together. Both secured the civilizations of Mesopotamia and Egypt, the Hindus through the medium of the Persians and the other Aryans who invaded India, while the Greeks obtained it through the medium of the Phœnicians. The first Aryans then found and used Semitic civilizations as a basis, as the Semites (or Mediterraneans or neolithic man) found and used Turanian cultures, on which they built higher ones. We have already described these Aryan migrations, but it is necessary, even at the risk of some repetition, to refer in greater detail to them, for we cannot emphasize too much or too often the fact that the history of the world for 3,000 years is a history of Aryan migrations and the civilizations which the Aryans built up, that these peoples came from the northwest corner of Europe and have only recently migrated to America. Throughout their whole history in ancient times, we recognize one clear fact—they were a high type which migrated too quickly to become acclimated by the usual process of selection, and hence they quickly died out, leaving their civilizations in the hands of the conquered lower types—Semites usually. Then there was decadence of the civilizations which these lower types could not uphold. We have never appreciated how much the ancient world owes to Aryan brains, nor how much America owes to them, nor have we appreciated how the Semitic or Mediterranean type has failed to rule properly in America and has been pushed out by the Aryan—Spain being the last to give way. The present spread of Aryan ideas, speech and population over the Pacific is merely a continuance of the old, old flow out of Arya.

The delay of Aryan influence is due in the first place to the delay in the origin of the Aryans themselves, for man could not get into Scandinavia until the ice gap disappeared—a comparatively recent event, for its remnants are still there in the glaciers, and as a known fact the invasion was delayed until the neolithic age. For a long time, also, the population was of necessity very limited. Both Norway and Sweden now have only 7,000,000,

even with the importation of foods. In the stage of civilization of the early Aryans, mostly hunting and but little agriculture, it is doubtful if the land contained more than 10,000 people, possibly less. This was at a time 2,000 to 4,000 B.C., when they were ignorant of metals, and it is evident that they could not have survived without that big brain which has since enabled them to conquer the world. The struggle of the Eskimos for existence was a different matter—a mere animal struggle—and large brains were not so essential, though they are very intelligent as compared with tropical savages and are very recent evolutions themselves.

It is quite evident, then, why these early yellow-haired Aryans did not expand sooner. They were a mere handful, and they could not have made ships to get away even if they were more numerous. Their subsequent expansion is in accord with all other zoölogical facts. The mammals themselves were once few in numbers, but their intelligence enabled them to survive and overrun the earth. There is no mystery, then, about the lateness of the emigrations of the Aryans, though it does seem strange that there were but a few thousand blonds in existence, at the time when the first Egyptian Empire and the pre-Semitic empires in Mesopotamia were teeming with brunets. This evidence of the very small number of the primitive Aryans is in accordance with what is learned from the study of the language, for there is a widespread opinion that they were not numerous. Similarly, the first English-speaking men, the Angles, were a mere handful, though their language, vastly modified to be sure, is drowning out all others.

Perhaps the most extensive account of the Aryans is *Doctor Schrader's* "Comparative Philology and the Earliest Culture,"* the second edition of which was made by *Frank B. Jevons*, University of Durham, under the title of "Prehistoric Antiquities of the Aryan Peoples." *Schrader* concludes that the steppes of the southeastern part of European Russia furnished the climatic and other conditions of the primitive Aryans before their migrations. Yet a careful survey of his data, makes it quite as likely that it was around the Baltic, as now generally accepted,

* Sprachvergleichung und Urgeschichte.

if not actually in Scandinavia. He seemed to think that they were ignorant of the sea and navigation, because no common words are found, but sea travel and navigation were very late developments. They did know of "boats" and "rowing" sufficiently to have been primitive vikings of the Baltic. They were ignorant of metals, and in the neolithic stage of culture, with weaving, primitive agriculture, and some domestic animals—the very conditions of Scandinavia 1500 B.C. or earlier. He mentions several facts of interest to our purpose. The Odyssey refers to the Elysium in which the fair-haired *Rhadamanthus* reigns, showing the blond upper type (page 421). *Herodatus* probably gives the first account of the Slavs as a non-Scythian tribe of fair blue-eyed people living near the sources of the Dniester (page 427). Fair-haired, blue-eyed tribes are mentioned as invading Persia from the East in the second century B.C. (page 8). *Penka* is quoted to the effect that the Aryans in India were "expressly designated as white" and the aborigines as black (page 111), yet they have disappeared, for he states (page 112) that "only the Brahmin families of certain districts are said to have preserved the nobler characteristics of the 'Mediterranean race,'" that is, the ancient Semitic aristocracy of pre-Aryan times has survived. He also states that the ancient Gauls were a "fair-haired, bright-eyed race of unusual stature" unlike the modern inhabitants of Gaul.

The last work of this nature is "The Aryan Peoples of Asia and Europe," by *Professor Zaborowski* of the School of Anthropology of Paris, in which a host of facts prove not only that the Aryans arose in Europe, but also the impossibility of an Asiatic origin.

By the time the Aryan tongue had been evolved, its users had gained strength enough to flow South, subduing and submerging the Asiatic immigrants in Central Europe and the Southern Europeans of all types, forcing out the Semitic tongues all the way from Spain to Greece, the tongue becoming fixed prior to the dawn of that history which they themselves made and recorded. They were the ruling type all over Europe—blond, tall, and long-headed. The most archaic Aryan dialect—that found in Iceland—may have been one of the first waves to the

North and West when the pressure due to the Asiatic invasion of the bronze age was first felt in Scandinavia. This may have been several thousand years after the Asiatics first entered Russia, and after the Aryan tongue was well progressed in its evolution.

If the throwing of human sacrifices into the rivers to appease the river gods was an Aryan custom introduced into Italy, then the first Aryans arrived on the Mediterranean prior to 1350 B.C., when the Siculi-Iberi established the custom, according to *Prof. C. Nispi-Landi.* The vestigial religious ceremony of annual sacrifices of images and other objects was not abandoned until 1849 A.D., the date of the entrance of the French army into Rome.

## THE GREEK ARYANS

All the Homeric Greeks had traditions that they came from the North. They called themselves Hellenes or "white men," and their land Hellas, though the first place called Hellas was a small district in Thessaly where they evidently tarried before conquering the Pelasgians. The latter had traditions that all their civilization came from Asia and Egypt, and perhaps it did, in part, as they were seafaring, though most of it was indigenous.

Like all ancient conquerors, the Aryan Greeks believed that their ancestors had merely wandered from the land and that they returned to claim their own. The Hebrews believed the same in Canaan. The Spartans proper were descendants of the leading Dorian conquerors. The intermediate class of Periœci (dwellers around the city) were personally free but were not voters or citizens. They were subject to the Spartans and remind us forcibly of the present merchant classes and the ancient Semitic ruling class of traders. The peasant was a lower class farmer, just as at present, and possibly a lower type of the Mediterranean race—perhaps the paleolithic type.* Citizens

* "We find in Homer that outstanding farms belonging to the nobles were managed by trusty slaves, who grazed cattle, and stall-fed them for city use. In Hesiod's time it was the poor farmer only who dwelt in the country, fashionable and idle people always came together in the towns. The very same facts meet us when we read the Greek novels of the latest age, such as the story of Daphneus and Chloe. There the citizens of Mitylene only came out rarely like many Irish landlords [also descendants of conquering

would not engage in trade or hand craft, "idleness was called the sister of freedom," only slaves worked—freemen were Aryan conquerors and land holders.

The ancient aristocracy of Greece was thus based on land owning. Civic rights belonged exclusively to the descendants of the Aryan conquerors who had seized the land. More complete democracies did not come until many centuries later, when the subjected Semites had reasserted themselves and gradually took the sovereignty from the remnants of the disappearing Aryan aristocracy.

The rise of Greek literature was contemporaneous with the rise of the Hebrew—in the fifth century, B.C.—and both were confined mainly to two or three centuries, though the Greek was greater, more varied and about as durable. "*Herodotus, Æschylus, Xenophon, Euripides, Thucydides, Aristophanes, Sophocles*, etc., being actually or practically contemporaries within that fifth century before Christ, when it appears the main portion of our Old Testament canon was written."* It would certainly be a great shock to us to find out that Greek literature was largely written by Aryan-speaking Semites after all, though built upon Aryan ideas. We know very well that when it arose the Aryan conquerors who had built up the civilization were on the verge of extinction—very degenerate at least. By the year 500 B.C., the Aryan Greeks were probably partly gone, so quick is the decay of races from lack of physical adjustment to a climate.

Though there is no allusion to any Greek manuscript prior to 700 B.C., or long after *Homer*, yet the oldest Greek hymns show that they were composed while the Aryan Greeks were invading (1) Thrace and Macedonia, (2) the Ægean Islands, and (3) Asia (making the three types of poetry). Their early minstrels, whose songs are collected in the Iliad and Odyssey, are exactly like the Northern bards, and must have been recent arrivals in Greece. "The intercourse of their chiefs is marked by the

invaders, by-the-way, who divided the land among them and dispossessed earlier arrivals] to visit their tenants and their flocks." The exceptions were the gentry of Attica and Elis, who both lived in the country, on their estates. (J. P. Mahaffey, "Old Greek Life.")

* Grethenbach's "Secular View of the Bible."

courtesy of a noble warrior caste, strangely mingled with brutal ferocity,"* just as they acted in the German forests.

More than 2,000 years later, the Northern Aryans showed the same brutal ferocity which was necessary for survival in their severe environment, and the old English litany even contained the prayer, "Lord, save us from the fury of the Northmen." His conduct has always been such as would make him a conqueror, and it was perfectly natural for *Nietzsche* to dub him the "blond beast."

By the last half of the first century, A.D., the civilization left in the hands of the descendants of the lower races had degenerated to such an extent that foods were so scarce and population was so reduced that *Plutarch* said the whole country could not have put 3,000 soldiers in the field. What a terrible disaster occurs to lower races when Aryans relinquish control of them! *Cornill* thinks this decay was due to their lack of religious and moral foundations, but their moral ideals were higher than the Semitic, as we shall see, and why should they decay and the Medes and Persians develop if it is not a climatic matter. "Aside from the sole shining figure of *Epaminondas*, who, as a Bœotian, was a semi-boor in the eyes of every genuine Hellene, Greek history from the end of the Peloponesian war to the time of *Alexander the Great* presents a truly depressing picture of abjectness and worthlessness. Very soon the average Greek had of civilization only the moral decay, of culture only the conceited arrogance. Only recall with what undisguised contempt the Romans looked down upon the Greeks when they first became acquainted with them. The Roman, who still retained the early Roman honesty and thoroughness, regarded every Greek as a mere blackguard, and *Graeculus* became an epithet for the characterization of a windy, puffed up, characterless, unreliable fellow." This sounds very much as if but few, if any, of the Aryans, are left and they degenerate. The Romans saw educated lower Semitic types, not the Homeric Greeks, long since dead.

Greek civilization was kept alive for awhile by the semi-barbarous Aryan Macedonian—probably a more recent arrival from the North, still vigorous, and they entered upon that con-

* Zebb's Greek Literature.

quest of Asia which turned the Semitic peoples over to Greek Aryan, from the rule of Persian Aryan, all the way from the Indus to the Nile. In like manner, German Aryan waves into Italy during the early centuries of the Christian era, kept the Latin civilization alive, after nearly destroying it.

It is a remarkable fact that there is little or no resemblance between the facial features on ancient Greek statuary and those of modern Greeks, but that there is a wonderful resemblance to modern Teutons. It can be explained on the supposition that the statuary invariably represented the highest types or aristocrats—the invading Northerners who built up the civilization by the labor of the enslaved lower types.

It has often been asked why is it, that the Greeks who resisted the countless hordes of Persia in ancient times, were so weak before a few thousand Turks in their late war. The climate and soil were unchanged—why did the people change? The answer is simple. The modern, dark Greek is a survivor of the older subjugated peasant stock of ancient Greece. The conquering, upper classes of ancient times were Teutons, so recently arrived that they even had the same games they played in Germany. We need not worry over the apparent paradox that the Aryan Greeks increased in numbers for awhile. They were originally a mere handful of adventurous spirits from the North. Probably many were bachelors, as is the rule in migrants, and married the native women—a custom almost universal and the cause of much denunciation from the Prophets among the biblical Hebrews. *Herodotus,* writing about 480 B.C., says:* "The Hellenic stock was weak, and from being weak in numbers it grew by mingling with other barbaric stocks; but the Pelasgians, it seems to me, never increased."

### ROMAN ARYANS

We can be safe in asserting that the invading race had mostly disappeared from Rome by the time it was necessary in the sixth century for *Justinian* to constitute every free Roman subject a full citizen. There were too few patricians left to be exclusive.

* Book I.

Even as early as Cæsar's time, the armies were raised from the North of the Po, and, indeed, mostly North of the Alps—all husky Northern barbarians and many of them blond Aryans. This phenomenon of Northerners soldiering for Southerners is still kept up, for we find Northern soldiers and officers in Spain and Morocco. Irish names are very common in recent Spanish military history.*

The very early extinction of the invaders and the destruction of life in the high density of population caused by Aryans, are shown by *Mr. A. M. Stevens*, in an article in the *Fortnightly Review*, on "Prevalent Illusions of Roman History." "The nobles were a parcel of crafty intriguers who made and administered the laws with a view solely to their own interest and aggrandizement. In the Roman senate every man had his price. The love of gold was the sordid spring of the most brilliant enterprises of the republic. In this verdict history is unanimous. The plebians have very little more claim upon our consideration, for a more contemptible pack of rascals never sullied the pages of history. The body politic was clogged and hampered by a horde of frivolous and irresponsible citizens, hopelessly abandoned to ease and amusement.

Below the plebians were myriads of slaves, who bodily and mentally were equal to their masters, but who had no human rights, and were tortured, murdered, and outraged at will. In war the Romans were past masters in methods of barbarism. Their constant study was what *Gibbon* calls the art of destroying the human species. Their voracious appetites refused to be satisfied by war and conquest for a political opponent was invariably regarded as an enemy and pursued with bloody and implacable ferocity."

This is not the picture of an Aryan civilization but of a lower race in possession of a civilization thrust upon them. It is too high for them to keep up, and it is decaying. Even at the present day *Lombroso* has called attention to the fact that one-fifth of Italians are little better than savages. They are probably modern survivals of the paleolithic predecessors of neolithic

* "A more serious regard was paid to the essential merit of age, strength and military stature. In all levies, a just preference was given to the climates of the North over those of the South" (p. 11, Vol. 1. Gibbon's "Rome").

man, and have never been able to advance in such a mild climate. They became the lower class as soon as a belated brainier upper class arrived from the North, and they have remained the lower class ever since.

### INDIAN ARYANS

*Prof. H. Oldenberg** says that the immigrants into India who called themselves Aryans were fair skinned, and the natives whom they conquered were dark people, "unbelievers that propitiate not the Gods." "It was the period of migrations, of endless turbulent feuds among small unsettled tribes with their nobles and priests; people fought for pastures, and cows and arable land." There were no cities, the Aryans building these later. They made the beginnings of the great old Vedic poems† very early before they had overrun India or reached the Ganges, for the Indus was called their "mother stream," and this great beginning was all made before they knew how to write, and all their poetry was orally transmitted. They learned writing from Semites, as did their cousins who wandered into Greece. The oldest of the Vedas give internal evidence that they were composed by military chieftains or conquerors—a parallel case to the Homeric poems. The later Vedas were composed by priests.

The Semites had entered India centuries or millenniums before the Aryans, but their writing was so crude that it was used only for short memoranda, perhaps business notes, never for books. Even the Buddhists, of 400 B.C., had no literature or manuscripts. The monks carried on their knowledge by oral tradition only. Their scholars were "rich in hearing," not rich in reading or "well read." They learned from each other and purely by memory, carrying back and forth between different monasteries the formulæ for prayers and confessions.

It is significant that this very earliest literature—the Rig Veda—shows a decay. The authors were elaborating the ideas of the rude, brainy, blond invader. Perhaps, indeed, some of them were the Semitic or Turanian types which occupied the land. By the time of Buddha the literature shows such degeneration that we cannot escape the conclusion that the Aryan

* "Ancient India," Open Court Pub. Co. † "Rig Veda."

originators of the thoughts were dead or that their descendants were half-breeds—Eurasians. Our scholars are not yet determined how much has been inserted into the Rig Veda. It is a problem they are now working upon, but sufficient is known already to give us a much clearer idea of the life of these savage Teutons of India than *Tacitus* has given us of their blood relatives, the barbarians of Germania. They were blond conquering shepherd chieftains, brainy men, with a sternly practical religion which is closely related to Northern European religions, but more primitive because Northern religions evolved considerably after the Sanskrit speakers left. Even the Rig Veda shows that there was a great evolution to noble and high forms, and indicates a very brainy people. It was a pity they did not survive longer—a few centuries, perhaps a few generations, ended them. Their younger brethren who later went to the better climate of Greece, survived much longer and evolved a higher religion.

The Eastern migrants hesitated a long time on the Iranian plateau before they were numerous enough to go through the passes into India, and in this resting period they evolved much of their philosophy, so that there is a close relation between the religion of the Veda and that of *Zoroaster*. The Iranian spiritual ruler was *Ahura Mazda* or *Ormuzd*, the Indian became Varuna, and neither can be traced to Greece. *Oldenberg* says, "Faith in their chief protector of the right, extends backward into the epoch when the ancestors of the Indians still formed one people with the ancestors of the Iranians, as they hesitated on the threshold of the Indian peninsula."

"The tribes who had originally settled as shepherds in the northwest corner of the peninsula, and who were still close to the gates by which they had shortly before entered India, had, in the meantime, penetrated still further. Having taken possession of a broad domain stretching down the Ganges, the period of migration and of conquest over the obscure aborigines is over. Cities have long since risen in the midst of the villages in which had lived the herd owners of the older time—some of them were great municipalities, seats of all the commotion and activity of splendid despotic Oriental courts, where commerce

and manufactures are highly developed, where life receives zest from a voluptuously refined luxury, and where have become established sharp social differentiations of rich and poor, master and slave" (*Cornill*).

The first evidence of Aryans given to us by Semitic history refers to the Northern Elamites who, eventually, overthrew the Semitic Assyrian government. Among them were tall, slender types with straight nose, blue eyes, and fair hair—independent mountaineers from beyond Susiana, and relatives of the Medes and Persians "that call themselves Aryans." It is to be noted that residence in these cold mountains permits survival of blond types which perish in the lowlands. Later came the wars with the Medes and Persians from the plateau of Iran to the East and North of the Mesopotamian plains. They must have been in this plateau some time to have built up those strong kingdoms. They were undoubtedly very rude men when they arrived. For centuries they were as little able to overrun the strong Semitic kingdoms of these Southern plains as the Germans were able to enter the Roman Empire of the first Cæsars. It was a very long resting time, for some branches had poured down the Eastern passes into India a long time before—several centuries prior to the first eruption of the Medes through the Western passes into Assyria, in 606 B.C. The like eruption of the Persians under *Cyrus* into Babylonia was in 538 B.C., after first destroying the Median kingdom twelve years before. In this long time they developed a high civilization from that rude form shown by the Rig Veda. It is interesting to note that the Babylonian Semites built the great Median wall from the Tigris to the Euphrates, to keep out these rude Northerners, and the Chinese built their wall for an identical purpose.

Aryan influences were carried to India a second time by the conquests of *Alexander*, and lasted some time. Indeed, a Greek king, *Menander*, ruled over Northwestern India about 100 B.C. Then there came another long intermission in which the civilizations drifted back to lower forms about on a par with the pre-Aryan Mediterranean cultures. India remained in this condition for sixteen centuries until Aryan influences for the last time were brought in by the Dutch and French and English.

A new civilization is now being thrust upon peoples wholly unable to support it unaided, so that if Europeans were to withdraw, India would relapse, and in fifty years England would scarcely be a memory as described so well by *Meredith Townsend* in his book, "Asia and Europe."

## MATHEMATICS

The history of mathematics points to the fact that the earliest civilized peoples who were Turanian or Semitic were not nearly as high intellectually as the later Aryan waves which went south. The first extensive mathematical treatise was that of the Egyptian Ahmes, somewhere between 1700 and 2000 B.C., and he seems merely to have compiled from earlier works. It was a very low grade of arithmetic, mostly tables of experiments in numbers, its highest point being the theory of arithmetical progression. Though he solved linear algebraic equations of one unknown and found the area of a circle to be eight-ninths of the enclosing square, yet he made errors in geometry (area of isosceles triangle — base X by one-half of the equal sides), and could not extract the square root. Then came a dark age, for there were no further mathematical discoveries in Egypt for over 1000 years. Perhaps the people who made the prior discoveries were all dead. It was the next wave from the North which took it up—the Greeks of the seventh century B.C., who had been in Greece only a few centuries as a Baltic aristocracy. They went to Egypt and other countries to learn mathematics as it existed, and then they developed the science wonderfully in the hands of *Pythagoras, Aristotle, Euclid, Zeno* and greatest of all—*Archimedes*. Then this race died and there was little advance for another thousand years or so, until still later peoples from the Baltic took up the matter. Indeed, it was 2000 years after the Greek advances, that conic sections were thought out. Then came *Kepler, Newton* and other Northerners to push the science to its present development.

## RELIGION

It is an orthodox article of faith among scholars that we are indebted to the Semitic races for the great religions of the world,

but there are good grounds for believing that they are the productions of Aryan migrants to Asia. Even the idea of God may have had a Northern origin, for Norsemen believed in God and, unlettered as they were, their philosophy was superior to that of the Greeks. These Northern ideas were carried with them wherever they went.

Now we have shown that the great outburst of Aryan intellectual and literary life in Greece, antedated the Indian by fully two centuries or more, and it is astounding that scholars still persist in asserting that Aryan philosophical ideas common to all Aryan branches, should have originated in India and traveled westward to Greece. It is more probable, indeed, it is true, that there were many minor waves in that tremendous flood of Aryans which poured south in Europe beginning prior to 1500 B.C., all of one blood, and all thinking similar thoughts. It is not at all surprising that the wave which traveled all the way to India, Ceylon, and perhaps Java or even Borneo, should have written down the same philosophy as the wave which stopped in Greece. In his work on "The Philosophy of Ancient India," *Prof. Richard Garbe,* University of Tuebingen, while believing that the three higher castes were Aryan and only the lowest or Cudras were non-Aryan subjugated aborigines, says, "this much is established, that the greatest intellectual performances, or rather almost all the performances of significance for mankind, in India, have been achieved by men of the warrior caste." None of it originated in the priestly caste. As the warriors are without the slightest doubt the invading Aryans, we can well see how much of the intellectual wealth of India, including Brahmanism, is due to this Aryan immigration.

It is remarkable what a large number of Buddhist ideas are identically the same as those found in the Christian canon.* Some of the stories, proverbs and parables of the New Testament seem to be copied from Indian literature. Indeed, India was a proper atmosphere for the origin of that altruistic Buddhism so parallel to the altruism of Jesus Christ. *Cornill* thinks these are cases of parallel evolution wholly disconnected, and does not think that Buddhist envoys necessarily carried their

* Carus' "Buddhism and Its Christian Critics."

ideas to Greece, the doctrines of *Pythagoras*, for instance, nor to *Alexandria* and *Antioch*, to be later incorporated into the Gospels. There is no reasonable doubt that Aryan ideas flooded into Palestine from the North, West and East. Aryan Persian influences were of course enormous, for it was the Persian who released the Hebrews from Babylonic captivity and sent *Ezra* back to evolve the new Jewish religion, and this was, by the way, at the exact time of Buddha and the outburst of intellectual life in India. Then, after the Persian Aryan influence, came the long reign of Aryan Greek influences brought into Palestine by *Alexander* and his successors. Indeed, the great sect of Sadducees was permeated with Aryan Greek ideas and openly tried to Hellenize Judea in opposition to the conservative Pharisees, who were trying to retain a pure Jewish theology. In addition there was a constant intercourse between Jews and the whole civilized world, for not only were Jewish merchant colonies and Jewish synagogues in existence all the way from Spain to India, but they were near the great commercial route used by oriental traders. There were Buddhist missionaries carrying Aryan ideas throughout all Southern Asia long before Christ was born. *Gunkel* (The Legends of Genesis) mentions the parallelism between the stories of Genesis and similar ones in Greek mythology as though they had a common origin.

*Prof. John P. Mahaffy's* new work on "The Silver Age of the Greek World" is devoted to this matter of the tremendous extent of the Aryan influence upon the whole Semitic belt from Gibraltar to India. Curiously enough, *Prof. Arthur Lloyd*, of Tokyo, has made the discovery that the classic which forms the basis of Japanese Buddhism "was written in Alexandria in the first century by a man of India saturated with Alexandrian philosophy, phraseology and ideas."

It is known that the Christianity of the first and second centuries, and that of *St. Paul* were entirely different from the teachings of Christ. The four Gospels were written long after the Pauline epistles and are the crystallization of the thoughts and traditions among the poor and ignorant Semitic and Turanian peoples of Asia and Southern Europe, which at that time had been under Aryan influences for centuries. One of these Gos-

pels at least is positively known to have been written by a Greek scholar, who had no doubt collected and arrayed scraps of manuscripts, copies of those used by the other compilers, so that identical verses appear in all four Gospels. In his book entitled "The Influence of Greek Ideas and Usages Upon the Christian Church," the late *Rev. Dr. Edwin Hatch* says: "I venture to claim that a large part of what are sometimes called Christian doctrines are in reality Greek theories, changed in form and color by the influence of primitive Christianity, but in their essence Greek still." *Paul* was the apostle to the Gentiles because he was a "Hellenist from the beginning," and he was strongly antagonized by the Semitic disciples in Jerusalem.

It has recently been stated that *Zoroaster's** teachings had "taken deep root in Iran when the Jews were carried into captivity in Babylon," and that he is responsible for an enormous influence on both Judaism and Christianity. He stands as the type of the oldest laws of the Medes and Persians, and from this time the history of Asian culture is merely that of the modification of Aryan religious ideas.

No wonder, then, that Christianity had to travel out of the country and settle among the Aryans of Europe—blood relatives of the peoples who originated the basic ideas. It was a parallel case to Buddhism, which was a Protestant form of Brahmanism in a sense, and Buddhism was driven out of its birthplace. It was exterminated by a series of persecutions so severe as to make the Christian persecutions of later date appear mild in comparison. These two great Aryan religions, then, were not acceptable to the Semitic ruling elements in Asia after the Aryan originators were dead. The whole country later reverted to lower religions—Mohammedanism and Brahmanism.

The point is not exactly that Christianity is a form of Buddhism taught by Buddhist missionaries in Western Asia, as some scholars now think, even going to the extreme as to teach that Christ himself was a Buddhist convert, but that both religions are the crystallization of Aryan ideas, carried to Asia or originated in Asia by Aryan immigrants. There is a tradition that Christ spent many years in a Buddhist monas-

* 660–583 B.C.

tery during that period of his life of which we have absolutely no records.

*Andrew D. White** mentions several facts and quotes several authorities, which leave little doubt that there had been a profound influence on Israel from Persia—many religious ideas having been copied from a land under Aryan control. It must be remembered the Judaism, Zoroasteranism, and Buddhism all arose at the same time and all under Aryan control.

The evidences of Aryan influences in primitive Christianity are so strong that *Prof. Paul Haupt*, of Johns Hopkins University, has even taken the ground that Jesus himself was an Aryan of Galilee which had been largely colonized by Aryans after the Assyrian conquest and then Judaized by *Aristobulus*, the king of the Jews. Nevertheless, there is no sure evidence of the survival of Aryans in Asia at this date.

Glaciers carry along huge bowlders torn from the bedrock, and deposit them in the terminal moraine as the ice disappears. So these streams of men carried along huge intellectual bowlders, depositing them as intellectual terminal moraines wherever the race disappeared. The bowlders of widely separated moraines may be identical because torn from the same area, and the intellectual remains of Aryan streams are identical because taken from the same place—Northwestern Europe—though we find them widely distributed, from India to the Pillars of Hercules. For instance, there are a host of similarities between the ancient Romans and the ancient Irish Celts of the same period. This does not indicate that one was derived from the other, but from the same source.

The number of people on earth who have been thus influenced by Aryan religious ideas is remarkable. Christianity claims twenty-six per cent., Buddahism forty, Brahmanism thirteen.† To this we must add twelve per cent. for Mohammedanism, which actually accepts Christ as a prophet, so that over ninety per cent. of the earth's population has accepted some Aryan philosophy. Since Buddhism must have also influenced the native religions of China and Japan, the above estimate is well within the truth.

* *Popular Science Monthly*, October, 1895. † Rhys David's "Buddhism."

## MODIFICATIONS OF ARYAN RELIGIONS

The most curious result of modern ethnology is the discovery that though men change languages easily, they rarely change religions, which are strictly separated according to race and brain development. Aryans cannot become Mohammedans. The self-willed, free, and contentious Teuton is Protestant wherever he goes, Scandinavia, Lowlands of Scotland, Ulster, Holland, North Germany, Iceland and Burgundian Cantons of Switzerland. There we find the long-headed type of skull, but wherever we find Asiatic intruders, the broad-headed races, there is Catholicism, with its submission and resignation—Belgians, South Germans, East and South Cantons of Switzerland, Bohemia, France, Alsace, Galway and Kerry, and Russia. The Gauls had a pope when *Cæsar* visited them. In like manner Roman Catholicism was evolved by Semitic types and is perfectly adapted to the dark long-headed Mediterranean races, so that Italy, Spain, Greece cannot become Protestant nor Sweden Catholic, but England accepts a compromise. Savages accept any hybrid religion embodying their own superstitions, as our negro and the Abyssinian. Religion changes by race, and religious wars are always race wars. Missionary efforts are, therefore, futile except to force Christianity on lower races which are to be henceforth immersed in a civilized community. Otherwise the race simply accepts the religion it can understand, which is always in accordance with the civilization it can evolve of its own efforts, savagery with fetishism, barbarous peoples with Mohammedanism and Brahmanism, while Christianity in the highest races is interpreted entirely according to the race's mental level. Hence, the Teutonic race cannot understand Mediterranean Catholicism nor Italians understand Protestantism. The Filipinos have accepted the Mediterranean form of Catholicism, its outward symbols and ceremonies being identically the same, but they have injected into it some of their wonderful old religion and folklore so that it really is a new religion as distinct as the Christianity of Abyssinia. They are perfectly satisfied, perfectly submissive to their own priests, and it seems

useless to expect them to change. They are probably as surely Catholic for all time as the Mediterranean States. Some of them who belong to our Protestant churches also go to mass, and invariably run to the priests for christenings, marriages and funerals—for to their mind none other are legal. For fifteen centuries Christian missionaries have actively labored to convert the Chinese, and we still devote to this impossible task millions which might go to the uplifting of our urban barbarians at home. Confucian, Buddhist and Mohammedan doctrines have likewise been injected into this inert mass only to decay, and there survives over all the primitive beliefs existing before gods were personified. The Emperor yearly worshiped and sacrificed in the old faith at the altars in the Temple of Heaven—the oldest religion in a civilized land.

Finally, since the mass of Aryans are blonds, while the Mediterraneans and Asiatics are brunet, as a result of natural selection in their dark and light countries respectively, we have a clear explanation of why it is, that in our Protestant churches, the communicants tend to be blonds, but in the Catholic (Roman or Greek) churches, Jewish synagogues, and Mohammedan mosques, they are brunet. Indeed, some Protestant congregations are almost wholly blond.

## ARYAN RULERS

The descriptions we have already given of the migrations of the blond Slavs, Celts and Teutons, should leave no doubt in our minds that in all Europe, ever since the bronze age, Aryan civilizations have been built up by blond Northern men who have constituted themselves a warrior class or aristocracy. The conditions in Russia, and Central Europe are fundamentally the same as in ancient India. The German aristocracy is almost wholly built up of the warrior class, and no "gentle" born man dared to take up any other calling than that of killing lower races or ruling them. Only recently German conditions have begun to change on account of her growing dependence upon home industries and trade.

What we desire to emphasize now is the fact that Aryan ideas

and brains have been the guiding ones in Europe for a long time. It does not mean that all the armies used by the Aryan conquerors were composed of Aryans—far from it! Aryan leaders use any race they find at hand—negro regiments here, Chinese there, Hindus elsewhere, and so on. Russian Aryans used Asiatics almost exclusively in Manchuria, and perhaps the Sanskrit Aryans did the same to a large extent in India. *Sallust*, writing of the North African peoples, makes of Hercules a leader of an army in Spain composed of many peoples—Medes, Persians, Armenians and others.

We also wish to call attention to the fact that the upper classes in every part of Europe, from pre-history to the present, are distinctly blonder than the peasantry. It is exactly as though this upper layer had more recently flowed down from the North, and stayed on top by reason of its brains. Consequently, the peasantry almost invariably associate rulers, fairies and gods with blondness. *Homer's* gods and men were frequently fair. Jesus is nearly always a blond, and so is Venus, though sometimes given dark eyes. *Milton's* Eve was blond. Greek sculptors gilded the hair of statues, and Greek and Roman women bleached their hair to imitate the upper crust. *Ripley* and *Havelock Ellis* mention scores of other instances of the elevation of blondness which shows it to be universal that every race of man looked up to blonder rulers from the North. Even in Norway, in ancient times, the yarl was whiter than the churl, and ancient Greek and Etruscan decorations show the same distinction. It is even found in modern Japan.

As we have conclusively proved in the work on "The Effects of Tropical Light on White Men,"* why the center of blondness in the world is in Norway, it is quite evident that these Northern types are the ones which have constantly drifted South, to become the upper layers of society as rulers and warriors. This organization of Europe is going on all the time, for the Southern drift is perpetual—it is a drift like a glacier, always melting because entering climates too warm and too light. Like a glacier, too, it mercilessly grinds the lower layers upon which it moves—the Alpine and Mediterranean types.

* Rebman & Co., Publishers.

Some specimens constantly drift as far as Italy and Spain and help to uphold Aryan civilization as long as they last. To be sure, the Mediterranean type produces a few men of wonderful ability, exceptional variations, but without the aid from Northern types among them, the Aryan civilization of the South could not sustain itself. Northern brains are keeping Europe Aryanized, and even recently the Greeks sent North for a Danish king, who was really forced on them, and we were on the point of nominating for the Presidency the son of a Scandinavian immigrant.

The drift which carried Slav Aryans into Russia as a ruling element only to die out, is continuing, but they speak German now. Recent reports show that of the 13,000,000 urban residents, 7,000,000 are German, who control much of the trade and manufacturing, own nearly two per cent. of the land, and are really upholding Aryan civilization in an Asiatic environment. They are percolating into governmental employ because so trustworthy.

*Gustave le Bon* asserts that the South American Republics are kept from absolute anarchy now by the Aryan foreigners living there, that is—Americans, Englishmen and Germans. Valparaiso is an English city, and Chili would collapse if its foreigners were withdrawn. Though the Argentine Republic has 4,000,000 natives of Spanish origin, there is a foreigner at the head of every important industry. This is in marked contrast to Venezuela, where the natives are ruining the land. The only decent Central American republic is managed by Europeans.

## HALF-CASTES

The position of half-castes is invariably between the two parent races, and is due to this difference in intelligence which separates races the world over. The Mulatto, Mestizo or Eurasian is higher than his lower parent, and utterly below the higher. Our educated mulatto is unable to compete with whites, and eventually seeks employment in his mental grade. As lawyers they are generally pettifoggers and childish; as physicians, worthless, and in all other professional positions they are pushed to the wall when they must compete with whites. Physically

unable to compete with brainier white mechanics, there is nothing left but unskilled labor and household duties.

Our mulatto and quadroon are on the same mental plane as the Spanish mestizo of half or quarter Malay blood. Each has an emotional ancestor (negro or Spaniard) and each has a more phlegmatic one. Each is an average between his two ancestors. The mulatto is livelier and more emotional than his white father, and the mestizo more lively than his Malay mother. Each is quieter and less emotional than his other parent (negro or Spaniard). When we find a Filipino who talks much or is lively in his sports or actions he is invariably a Spanish mestizo. The mestizo can absorb the same education as the mulatto, and each is capable of much more than the negro or Malay. Occasionally, there arises by inheritance from an exceptionally brainy ancestor, a more brilliant and able mestizo or mulatto—a Rizal or Booker Washington—and now and then there may be a very able man in each half-breed race in every profession. There are very able quadroon and octoroon professional men in our South, and there are very able one-quarter or one-eighth breeds in the Philippines, but in each case there is but one-quarter or one-eighth of the lower type. Yet these types are very rare, and from their very prominence give us a false idea as to the pure blood races. One of the men who has filled much of the public eye, as a Filipino, is almost pure Spanish. Our mulattoes and quadroons will not associate with the black negro because of his inferiority, and yet the mulatto complains that he himself is treated as an inferior by the whites. In the Philippines the mestizos look down upon the pure blood Malays as an inferior race, calling them Indios, and yet complain that the Spaniards always treated the mestizo as an inferior race.

The difference between the two hybrid types is that of environment. The mulatto is submerged in a numerically superior population and through lack of abilities is forced to the wall in the struggle for existence. In the Philippines the mestizo has no competitors and therefore rises to the top as a ruler. They are like the half-breed Indians of our Northwest and Canada, leading types in an Indian population. The same conditions exist among the half-breed Dutch in Java and the Eurasians of India.

From the variation among all white races, it is evident that we have many low types of pure white at home, who, though superior to savage Malays, are much inferior to the better class of mestizo. Indeed, many of the mestizo insurgent officers, have, by their actions, shamed the "civilized" types which distinguished themselves in the capture of Peking in 1860 and 1900. The cruelties of other insurgent officers showed the Malay blood.

*Stephen Bonsal*, speaking of the Filipino University of Santo Tomas, founded in 1620, says*: "It must be admitted that in 300 years not a single pure-blooded Filipino of the thousands that they have graduated, has distinguished himself or left a considerable name in any walk of life. Why is this? Some of the Friars told me once that their educational efforts had failed because of the invincible 'passivity' of the Indian. '*Luna*, the artist,' said one of these really distinguished teachers, 'had more Spanish and more Chinese blood in his veins than Indian. Rizal was probably half Japanese, he certainly was very little Tagal, and Lucban, who has given so much trouble in Samar, is a mixture of all races. Out of the thousands and tens of thousands of pure-blooded Tagals and Visayans we have nursed through the University, we have only succeeded in producing a number of fairly good apothecaries and a notary or two'"—and they have had more matriculates than Harvard in three centuries. Again in speaking of the work of the Friars as managers: "The parish priest was recognized as inspector of all schools within his parish until 1893, when, by the municipal or township act, the control of the schools passed entirely into the hands of the municipal officers. Men as hostile to Spanish dominion as Aguinaldo were installed as teachers, and the schools became the hotbeds of the Separist movement. There is much evidence to show that from this time the attendance at the schools diminished, and the character of the education received by the children deteriorated. It could hardly be otherwise when not seldom there was not a single member of the school board, composed of the municipal officers, who could read or write."

How nearly identical to the Philippine conditions is that of the negro as to brain work and leadership, is shown by the fol-

* *North American Review*, October, 1902.

lowing quotation from *G. T. Winston*, President of the North Carolina College of Agriculture*: "Nearly all the leaders of the negro race, both during slavery and since, have been mulattoes; and the two really great men credited to the negro race in the United States have been the sons of white fathers, and strongly marked by the mental and moral qualities of the white race. The mulatto is quicker, brighter, and more easily refined than the negro. There is a general opinion among Southern people that he is inferior morally; but I believe that his only inferiority is physical and vital. It cannot be denied that the negro race has been very greatly elevated by its mulatto members. Indeed, if you strike from its records all that mulattoes have said and done, little would be left. Wherever work requiring refinement, extra intelligence and executive ability is performed, you will find it usually directed by mulattoes."

It is not at all surprising that many, if not the most, of the faculty in Booker Washington's school at Tuskagee, Alabama, are mixed bloods, nor that the negro exhibit at the Jamestown Exposition was the product of mixed bloods almost exclusively, though there were some negroes among the mechanics and laborers.

The Cuban mulatto is on the same mental plane as our mulatto and mestizo, but in a curious midway social and ethnic position. He has a Spanish father like a mestizo and a negro mother like our mulatto, and is, therefore unlike either of these other half-breeds. He is neither submerged in a higher type as our mulatto is, nor floating on a lower type as the Filipino mestizo does, but occupies a distinct social and political position of his own between the two layers. He has done some good work and is a strong political factor, and one to be reckoned with in all Cuban affairs—a leader of the lower Cuban types, though needing the guidance of the upper layer.

We can now see that the same law applies to all races on earth. When two or more jointly occupy a place the higher invariably becomes the guide and ruler—the aristocracy. The Semites are an upper class to Turanians, the Aryan is always an aristocrat to the Semite. Mixing or the production of a homogeneous mass is unnatural, never has occurred and never will.

* "Race Problems," *McClure's*, p. 108.

Every now and then some writer asserts that there never was an Aryan race, and that the whole matter is a myth. The latest to scout the Aryan is *Jean Finot*, editor of *La Revue*. These men have curiously little on which to base their opinions, but are bewildered by the widespread of Aryan ideas in the world. An Aryan language invariably drowns out those with which it comes into competition, and the Aryan dialect, which has undergone the greatest evolution, by reason of its superiority, is displacing all others

## ARYAN LANGUAGES

*Mr. E. H. Babbitt* predicts* that within a century English will be the vernacular of twenty-five per cent. of the people of the world, and will be read by fifty per cent. Even now seventy-five per cent. of mail matter is addressed in English. More than half of the world's newspapers are in English, and as these have the largest circulation perhaps three-quarters of the world's newspaper reading is done in English. It required brains to evolve these languages, and the brains which did it are assuming control. Moreover, it is not probable that any artificial language like Esperanto can possibly displace a language which has evolved naturally and survives by reason of its superiority.

There is, then, a perfect explanation for the modern control of the world from the Northwest of Europe. The Dutch already rule as much area as the continent of Europe itself. The English control one-fifth of the globe, and are causing dense masses of lower races to exist. Of the 200,000,000 Mohammedans, 124,000,000 are under Christian control, and if that control would end the Mohammedans would diminish. It is said that the Latin races, which numbered 55,000,000 in 1800, are about 90,000,000 now, while the Aryan nations have increased from about 43,000,000 to over 200,000,000—an increase due solely to their commensal relationship to the rest of the world where they have built up Aryan civilizations and increased the food supply. The original meaning of the word is prophetic of the last "noble," "excellent," "honorable," "lord of the soil" and the rulers are from Erin as well from Iran and Arya.

* *The World's Work*, February, 1908.

# CHAPTER XXIII

## ARYAN DEMOCRACIES AND THEIR RELATION TO LOWER RACES

DEMOCRACY—THE WILL OF THE PEOPLE GOVERNS KINGS—MODERN DEMOCRACY—ARISTOCRACIES—ARISTOCRATIC DEMOCRACIES—MUTUAL AID.

### DEMOCRACY

The future establishment of Aryan civilization in every nook and corner of the earth can now be safely predicted. It is even percolating into China. But their is a curious paradox which must be cleared up. Aryans are intensely democratic among themselves, yet always aristocratic in their contacts with lower races. This aloofness of the guiding, brainy race from the guided types is an instinct due to natural selection during its evolution, but it has become an instrument for the mutual aid now between all types.

In the first place, we must explain what democracy really is, as the word has been misunderstood. We will define sovereignty as the ownership of a corporation; the stockholders of a railroad, for instance, are the citizens of that little government, and are on an exact equality, that is, each share has a vote. Now, all the citizens of the social corporation called a nation do not possess a share of its sovereignty because they are not all stockholders, and hence, we find that in no country are all the citizens voters. We formerly excluded from the franchise every one who was not able to do his share of protecting it in war—children, women, the aged, insane, criminals, etc. Other nations exclude certain lower races which have been conquered and which, in the higher civilization thrust upon them, have increased much more in numbers than they would if they had not been conquered. The 6,000,000 or 7,000,000 Malays in the Philip-

pines never did and never could exercise the powers of sovereignty, though they might in a Malay government of low form. They would not be in existence were it not for the increased population due to the high civilization forced on the country by the Spanish government. Naturally, then, they could have no share in the government to which they owe their creation, for if they owned it, the civilization would decay, population decrease, and they themselves die. Unless ruled, they cannot exist.

A pure democracy or a government by all the people of a nation never existed; the nearest approximations were the ancient homogeneous Teutonic villages where all the males were young and on an equality, the old and feeble being killed off. Everywhere else, what might have been called democracies, have invariably been aristocracies or oligarchies, where the sovereignty resided n a minority or a few, the bulk of the people not even being citizens, but like resident aliens, or if called citizens, did not possess a share of the sovereignty. Hence, a democracy is a government by a part, often the minority, of the people. They make their laws directly in the "folkmoot" or "town meeting"—a direct democracy—or, if very numerous by representatives—a representative democracy. Their will is executed by a chief, who may be selected for a short term or for life, or by hereditary descent from one who was directly elected. The latter type, though called a limited monarchy or government by one man, is a true democracy, as much as a republic in which the executive is elected for a short term.

## THE WILL OF THE PEOPLE GOVERNS KINGS

The election of a king was an Aryan custom in all of the early branches of the race. In the Vedic literature he is the rajan always mentioned as elected, and there is never any mention in these times of an hereditary descent to the son. The king or rajan became in time of war the *satpati* or leader in the field. From rajan we see the relationship to the Latin rex, Gothic reiks, and the final syllable in Orgetorix, Vercingitorix, Theodoric and Alaric. Ancient Teutons always killed a leader

who assumed a kingly command with a view of possessing it for life. They were the only ones who could confer lifelong power. Modern Englishmen did the same when Charles assumed more than they gave him. Ancient Teutons and Celts invariably deposed a king who became inefficient. It was too dangerous to have any but a good leader. In 1327 the people represented in Parliament deposed Edward II, *Sir Edward Trussel* bearing the message, "We will hereafter account you as a private person, without royal authority." In 1399 Richard II, and later James II, were similarly deposed. The Romans of the Republic did the same, for the Senate, by decree, ordered the magistrate to resign. This right to turn out an unfit chief executive has, then, always been an Aryan characteristic as operative to-day as ever. Where it does not exist by one reason or another the unfit executive is murdered, as in Turkey, Portugal, Russia or Servia—a nefarious custom wholly unsuited to Aryan democracy. It has been brought to America by these people—the Czolgosz type—whose ancestors not being Aryans or democrats never have known of any other way.

The framers of our constitution had a lively recollection of the injury which could be done by an unfit executive, such as the crazy George III, and were very sensitive on the point of checking the power of the President. Indeed, it has been asserted by *Mr. Arthur T. Abernethy,* of Philadelphia,* that our first President might have become King were it not for public sentiment. So our President's term was limited to four years to avoid this danger. It may have been an unnecessary worry, for if a President elected for life had dared to assume powers not given to him, the ancient Aryan hereditary rights would have been exerted and he would have been deposed. The murder of Goebel, in Kentucky, was a revival of a primitive savage Aryan legal custom. Ballot-box stuffing and like crimes which reverse the will of the people are, therefore, doubly dangerous, as they tend to revive savage methods having no place in civilization.

*Jhering*† has given a very interesting account of the ancient

* "Did Washington Aspire to be King?"
† "The Evolution of the Aryan."

Aryan customs in electing and deposing kings. The Assembly or "Thing" of the ancient Teutons was composed of all the fighting men who always came armed, and gave their consent to the various proposals by clashing together their arms. The election of a king was confirmed by elevating him upon a shield and handing a spear to him. A like custom existed among the Romans. In the Swiss Canton of Unter-Walden, the members of the assembly are still armed—so great is the tenacity of useless customs which were once necessary. That is, in Ancient Arya, when might made right, only young, vigorous soldiers were voters. Even in Rome as late as the time of Christ—every soldier was a citizen and every citizen a soldier. Citizenship meant that they were conquerors. Modern nobility has the same basis—they are the warrior class. In France all classes are eligible to enter the army, and though there are only 6,000 noble families in the 40,000,000 people, yet it is found that one-sixth of the military cadets are of this class, and recently four of the ten honor graduates were nobles. It is heredity. On the other hand, China shows the opposite feeling among the hundreds of millions who have always been the conquered class and who now despise the soldier. They have a proverb: "It is better to have no son than one who is a soldier." The bitterness of this can be imagined when we think it is the land of ancestor worship, and to have no son is a calamity.

The election of the chief executive, duke, earl, rex, king, president, governor, or whatever name we gave him, is the same in principle all the Aryan world over. It has always made hot blood, and fighting ensued as must happen in races of warriors. The elections are occasionally bloody yet, even if we do have the Australian ballot system to protect the weaklings too feeble to voice their choice openly, as their ancestors did. But the elections of old were so very bloody that they were put off as long as possible by electing the man for life. It was always the "man on horseback," one of great executive ability; that is, the man who could instantly organize and lead them forth to battle against intruders or to seek more room in their territorial expansion movements. The war lord became king. When the king died, the strife of candidates was really

civil war, and to prevent it, they finally selected the successor beforehand, had him confirmed by law, and the State seal put on the transaction. He was then next in line, a vice-president.

Finally, people saw the law of heredity, and it was acknowledged that the king's son was more likely to be a good leader and executive than any other man, and he was selected, and thus we secured hereditary executives, who could be trained from infancy in the duties of executing laws which the people made. In order to be sure that sons should be of proper material, the people insisted that their kings should marry into the proper stock, and hence arose that inviolable law that royal marriages to be legal must be of royal blood, a law which has been such an enigma, but which we now see was a result of natural law. Selection has been operative all the time, and we have specialists in executive work, the sole survivors of long lines of able, successful ancestors, royal personages wholly unable to make a living in any other way, who sink into abject poverty if deprived of their pensions, and who must be supported by the people or they would die. The grants made by parliaments for royalty are not money wasted—not at all! It is money saved, and less expensive than our way of spending millions every four years for election purposes—infinitely less expensive than the blood spent in ancient elections. Thus, the people have actually bred up a species or race of executives by artificial selection, just as ant colonies breed their types of soldiers and workers. The new kings as well as the old must swear "to govern in accordance with the old ways." But in order to survive, the executive in England must not interfere with the law-making representatives, and the only survivors by natural selection are those who will keep hands off. Consequently, in this respect, Great Britain is much more democratic than we are, for we have arranged our Constitution so that the Chief Executive has much weight in law-making.

As civilization advances we find as a natural evolution, that chief executives know less and less of military matters—they are not of the fighting strength at all. People became crowded and delegated fighting to a portion only, the generals ceased to be rulers, but became instruments of the executive, to do certain

things as best he could. For a long time the war lord, not of royal blood, was supreme in war and above the royal king, and just as the Japanese Shoguns were for 250 years in peace. He finally became subordinate, even in war—a chief of staff we call it. William was forced to let Von Moltke manage the military branch as he saw fit, and always ordered the plans suggested. We have not reached that stage yet, but temporarily we have made the Chief Executive the Commander-in-Chief in war, and have not provided him with a complete staff, but we will, and then we will see the Presidents do as William did—turn over the military plans to the modern representative of the modern War Lord—the general staff composed of many big brains skilled in specialties, because one brain cannot possibly absorb all the details of the modern science of war.

The division of labor of modern society limits the duties of a king. He has so little to do, indeed, that he requires but little originality. He signs what is put before him and asks no questions. If he thinks he has power to modify the course of events, he is informed that it is easy to get a substitute for him. This is why there have been eminent royalties but little removed from feeble-mindedness. They are the survival of the fittest. A sultan needs more brains than an Aryan king, but even he must submit to popular will sometimes, as in Persia and Turkey, and perhaps Egypt, too.

The history of the Teutonic peoples shows that they have always been democratic—that is, the sovereignty resided in all the male citizens. As the nation was all of one blood, there was equality, omitting, of course, the slaves taken in war. Hence, the sovereignty was equally divided among the people, and they were all sovereigns. When it became necessary to entrust the execution of their will—that is, the laws—to an executive, and that executive was made hereditary, the idea gradually arose that he and not the people, was the sovereign, and the king assumed that he was a sovereign by the divine command of God. It is to be remembered that upon every conquest of England by Roman, Saxon, Dane or Norman, the sovereignty was taken from the people and divided up among the conquerors, so that it became an easy matter for the king to steal it all. The first

marked break in this condition was the charter of Norman Henry, in 1100; then after Runnymede, in 1215, came the Magna Charta, or acknowledgment by the king that he would share with the nobles. England then became an aristocracy, but its later history is a long and wearisome account of the struggles of the people to regain their sovereignty. At one time they had to import the House of Hanover, to get rid of the greater nuisance—the Catholic Stuarts—for we have seen that this religion, so fitted to the lower submissive races of Southern Europe, is repugnant to self-assertive Teutons. In time George III and his degenerate obese minister, Lord North, denied these same rights to American colonists, and the revolution had to occur again, as it had times innumerable before and has since. Burke and others saw the inevitable outcome, but were powerless to stop it.*

When George III refused to sign a bill passed by Parliament, the Prime Minister said, "Very well, your Majesty, it is easy to get a king who will sign it." When a later queen asked a prime minister what it would cost to enclose St. James' Park for her private use, he simply replied, "Two crowns, your Majesty." By the execution of some and the banishment of others, the people have eliminated the royal lines which could not understand that they were public servants, and as a survival of the fittest, the present Royal houses are perfectly adjusted to this proper relationship. They will even change religions to please the people they serve. The king has, in fact, become the servant of the State, though the old forms are retained. When the king uses the first person, "my army," "my Parliament," etc., he is no longer speaking as the sole sovereign. It is a figure of speech. It is really the people speaking. If they could do it conveniently, they would say "our army," "our Parliament." Every one knows in England that when the King says "my army," that the sentence means "the Sovereign's Army," that is, "the People's Army." No one is deceived and no one worries over it.

Technically, only the King can declare war, yet it recently

* All these facts are explained in Green's "History of the English People," and Bryce's "The American Commonwealth."

raised a great outcry when the Cabinet in the name of the King, entered into a compact with Germany to declare war on Venezuela by a blockade. The people said that it was their right, and no one could do such a thing except the people in assembled Parliament. The Cabinet had to disavow the transaction and settle with Venezuela in a hurry. They were on thin ice for a while, because they had stolen the rights of the sovereign people. Likewise, the word "subject" has a new meaning. It no longer means "subject of the king." Every man is part of the social organism, subject to its combined will, and dependent upon it, a real subject of the State. This is as true in the United States as in England, only we dislike the word so much that we use the word sovereign. So we say Americans are all sovereigns, but each one is subject to the will of the majority—the law. There was once a great outcry against our Ambassador to England, *Mr. Bayard*, who, in a speech, used the word "subject" in referring to American citizens. He probably used the word in its English sense, so as to be better understood by his hearers. In France, the same revolution has occurred. *Louis XIV* said, "*L'etat, c'est moi*," but he did not know that society consists of its people. At present every Frenchman is recognized as part of the State.

## MODERN DEMOCRACY

The medieval French were far from monarchic, but were essentially democratic; indeed, they elected their chiefs, and these "warrior-nobles" elected Hugh Capet, and he began a feudal system in which they lost much of their personal liberties and built up a monarchy culminating in the absolutism of Louis XIV. The Revolution was really a restoration, and the present form of government is at basis the same as that of Hugh Capet except that the executive head is not elected for life.

These matters are now so universally recognized in Northwestern Europe, that no one bothers his head about the question of a monarchy or a republic—both are means to the same end. The old discussions have disappeared, and *Bryce* ventures the suggestion that the English democracy does not desire a republic. Perhaps the monarchy of some American republics

has opened their eyes to the fact that there is nothing in a name. The most democratic and most Aryan nation on earth, the Norwegians, preferred a life executive to a short-term one, and elected their present king, after dismissing his predecessor. A few centuries ago this election would have been quite bloody, but it scarcely made a military ripple. Recent events in Germany also show that there, too, public opinion is a vital force to which princes are subject.

Now, it is interesting to note the jealousy with which Aryan peoples guard their freedom, and if they refuse to permit a king to share their sovereignty we should expect that they would refuse to share it with lower races. As democracy can only exist in a homogeneous people, it is an almost invariable rule that when Aryans conquer a country, they establish an aristocratic democracy, the sovereignty residing in themselves and never shared with the lower races. Greek slaves when freed never became citizens, even when of native stock, but remained in a state like resident aliens, under the patronage of former masters. They never shared the sovereignty, though Roman freedmen did in time. The Basques, on the other hand, are remarkably homogeneous. They are the probable descendants of the extreme western wave of Asiatics, though somewhat changed by intermixture with people they conquered or people around them, and exhibiting some physical differences amounting almost to two types of people. They have never been conquered, and are as independent to-day as when Cæsar made them allies after despairing of subjugating them. Hence, they are remarkably democratic, and have no nobility. The same conditions existed among the Iroquois Indians who were solidly democratic because all were alike, "all clansmen and (strange to say) clanswomen had the right to vote in electing or deposing the officers of the clan."

If the southern drift of Aryans from Scandinavia has supplied the aristocracy, nobility and royalty of Europe for so many millenniums, it naturally follows that there should be no aristocracy in Scandinavia. To a certain extent this is true, for it is said that there are but five noble families in Norway. The Norwegians show no love of titles, and are so intensely democratic that

the aristocratic element is smaller than in any other large Aryan country. Though there are 3,000 noble families constituting the aristocracy of Sweden, they are all modern creations, and many are intruding Scotch, Finns, Germans, Danes and French. But one house has existed three centuries, only twenty are over 200 years old, and the royal family rose from Marshal Bernadotte who was once a private soldier and son of a Pyrenean peasant lawyer. Even in Denmark where the Aryan element is less, the aristocrats or higher families are untitled, and name and lineage are more prized than titles. The Dane is a democrat. But as we progress from these countries in any direction we find more and more aristocracy, because more and more differences of type are dwelling together.

## ARISTOCRACIES

Russian sovereignty resides in a very small aristocracy, most of whom are Aryans whose ancestors migrated East, and now rule the Asiatics who came West. Theoretically, the Czar is the only sovereign, it being on paper a pure autocracy, but he is really a creature or servant of an Aryan aristocracy which rules the Empire. This aristocracy was too few in number, and of too recent arrival to have organized a representative body; indeed, they did not need it, for they could express their sovereign will without it. Hence it was much better for Aryans in Russia to carry on their government "in the name of the Czar," just as their blood relatives in England do it "in the name of the King." Each is a fiction. If the Czar failed to do the bidding of the sovereign Teutonic aristocracy, they killed or deposed him, just as the Teutons did in England. The present Douma represents only a small part of the citizenship and this is the only possible form of government in Russia, where the great mass of the people are so brainless that they cannot support the high civilization into which they are intruders. If they were not guided and controlled, there would be such anarchy that not ten per cent. of the present population could get food.

*Prof. Edwin A. Grosvenor*, of Amherst College,* has shown

* *National Geographic Magazine*, July, 1905.

that a Russian autocracy is manifestly impossible, for the ruler depends upon the good will of his army. He states that the Slavs repeatedly refused constitutions and republics, and insisted upon a plan whereby the Czar should have that power-of-attorney we call autocratic power. He was invested with power by the people—at least the upper layers of the population—and these same upper layers are now demanding a restriction of the power of the Grand Dukes. They are exercising their democratic rights, though it may be difficult to get back what they once surrendered—but they are aristocrats all the same. The peasant cares as little about the matter as he does in France or England; in fact, he cannot comprehend what all the turmoil is about, for the taxes go on just the same. He must pay as highly as ever for the privilege of living in that overcrowded country.

The trouble in Finland is due to the fact that the ruling Aryan type in Russia is trying to destroy the democracy of the Finns, who are very largely Aryan themselves. They demand the same share of the sovereignty as is possessed by Aryans the world over. The system which will do in Eastern Russia among the Asiatics, called Slavs, cannot possibly succeed among these Aryan democrats who are blood relatives of the present Russian aristocracy. One of the greatest proofs of the democracy of the Finns and also possibly of their Aryan blood, is the utter failure of the attempt to Russianize the country. They demanded and got back their ancient Aryan liberties, and are now self-governing democrats—the Czar being like an elected chief executive with a local representative really of their own choice. Autocracy has no place in this Aryan population.

Japan, too, is a typical aristocracy, and has been for many centuries, probably 3,000 years, the Mikado being a mere figure-head to execute the will of this small minority. The rulers are no doubt descendants of the last conquering wave from the mainland. The franchise is possessed by only ten per cent. of the population; an elector must be twenty-five years old and pay seven and one-half dollars (fifteen yen) yearly in direct taxation. The physical differences between the voting aristocracy and the lower, more brainless peasant type, are very

marked, as the latter are probably descendants of very early immigrants.

Lynch law, by the way, is merely an expression of democracy if the sovereign people says that it shall be the temporary method. Usually they place the execution of the law in the hands of servants, but occasionally the servants are too slow or venal, and their methods improper for the case in hand, and their employers supersede them. We have been very properly crying it down so much that it is a habit to denounce it as something undemocratic, whereas it is the highest prerogative of the sovereign democracy to make and execute their own laws. In a small democracy lynch law carried out by all the citizens is technically correct. In the South the lynchers often constitute all the sovereigns. But this biological truth does not deny the fact that in crowded communities, where even a majority has the impudence to lynch a man, they are stealing the sovereignty belonging to the whole corporation—society. They are murderers in that they have not been delegated by the sovereigns to execute any law. To permit this is anarchy, and our own personal safety demands that we put a stop to it, for no one knows when his turn is to come for a supposed offense. It is to be confessed that such actions will never cease while the majority approves.

Englishmen often regret the American Revolution and the severance of the highest Teutonic types into two branches. They claim that union is better for all, but they forget the incalculable benefit the revolution was to Englishmen. Our Declaration of Independence simply took the world by storm. It was all true, they said, and Aryans have always thought that way, but for the first time had Teuton man reduced to writing an account of the rights, his by inheritance from a long line of ancestors. Assertion of these rights became the policy. It bore immediate fruit in France's revolution, but it took a whole generation in England. New revolutionary ideas require a generation to take root in Anglo-Saxon countries. The Declaration of Independence of Englishmen had to wait, but it came, for the nineteenth century has seen revolution after revolution—by reforms—a method more sensible and less bloody.

The Dutch who settled in South Africa formed a typical Aryan democracy, but they could not associate with the Saxon who later intruded, so they "trekked north." Later, they invited the Saxon to Pretoria to open mines, railroads, to trade and do all other things the Boers could not do, for they were only a pastoral people. Now comes the amusing part, the Dutch Boer did to Englishmen exactly what George III did to Americans, forced taxation without representation upon them, and refused them citizenship. These Saxons did just what their elder brothers did in America in 1775—fought for the democratic rights which belong to all Aryans. The Boer had the wit to call his oligarchy a republic, and it caught public approval in America where the word is sacred because we suffered so much from a monarchy. Hence, the tyrant Boer has all our sympathies while he has been acting like the tyrant George III. It was a magnificent "graft," and Kruger held on as long as he could and became rich on it, but this kind of tyranny had to stop in the twentieth century.

### ARISTOCRATIC DEMOCRACIES

When democrats from Northern Europe flowed South is it not natural that they should establish democracies at the same time they ruled the lower conquered races? They died out in time and the democracies had to be followed by absolute or limited monarchies, for the surviving natives never have been self-governing. The Northern Aryan has even furnished the last king for the Greeks and the last queen for the Spaniards. We have been lucky enough to reach a climate which permits of longer survival—the immigrants in Greece, Rome, India and Ceylon were unlucky in drifting to fatal climates. Finally, when we have flowed over the whole country and are too crowded to wait for the slow increase of food production and must flow over the Pacific to other lands seeking a living in some way, we are doing the same thing over again—establishing democracies in which the lower races, Negritto and Malay, can take no part. What an illustration of the old adage that there is nothing new under the sun. In the Philippines we are doing what our relatives have done in Egypt, America, Europe, Greece, Italy, India and Cey-

lon. The two Aryan waves, one spreading east and the other west, have now met on opposite sides of the China Sea. Britishers in Hong-Kong, figuratively shake hands with their cousins in Manila. Aryan Britishers have outposts in Borneo a few miles from Aryan American outposts in Jolo. The Baltic man has at last encircled the world, as he was destined to do, from the evolution of a larger brain.

Filipinos have no sense of democracy, and this is the result of having so many strata in the population, each holding itself superior to the lower—a feeling found all the way from the rich mestizo to the lowest Malay. It is impossible to inculcate equality as we think of it at home. Even the school children show a decided aversion to the children of a lower strata. The high-class ones will not willingly do anything which smacks of servant's work—cleaning a blackboard, moving a bench, or a pile of books. Anything which soils the hands or clothes is for "Chinos" and common "*hombres.*"*

It has become fashionable for a certain class of Americans to assert that our form of government is not fitted to rule lower races, in spite of the fact that Aryans have always established similar democracies and ruled lower races, and in spite of the fact that we have been controlling American Indians ever since the first Pilgrims landed on Plymouth Rock. Our democratic spirit has not disappeared yet, and never will as long as we live, because it is an ineradicable Aryan instinct. There is no doubt that our course in retaining sovereignty and giving up to the

* From the 1902 report of the Philippine Bureau of non-Christian tribes we read: "Society among American Indians is thoroughly democratic. The authority of the so-called chieftain is not due primarily to descent or to noble blood, neither is it based on wealth. It is due to courage, skill as a warrior, sagacity—that is to purely personal characteristics—and to the strength of an Indian's 'medicine.' Moreover, the Indian has a strong sense of justice and fair play, and the Indian official can carry out his orders, not merely because he has the authority of the United States above him, but because he has the strong support of the Indian community. Oppression is almost impossible for him, even were he inclined to do it."

All this refers to a uniform people of one blood, but let us see how utterly impossible this is in the mixture of types in the Philippines from Negritto to Spaniard. "Now, Malayan society as we find it in the Philippines, is not democratic in its tendency, but is oppressively aristocratic. The power of the man of wealth, position or inheritance is inordinate. He is not only able to commit abuses, but is morally blinded to their enormity. Beneath him the man of poverty and unenlightened mind takes rank with the animals that till the soil."

Filipino only such power as he has the brain to use properly—is natural, scientific and moral.

We must establish the same form of government we did in Massachusetts—keeping the sovereignty from the native, but giving him full human rights before the law, but no right to make the law. We may have gone too far already. We have put legal instruments in the hands of people who cannot understand them. They are like the children in those little colonies of street waifs, Junior Republics, playing at self-government, with white men above them to see that they play fair.

At Balayan, Batangas Province, December 18th, 1902, a white school teacher was arrested and without trial, sentenced by a Malay justice of the peace, to fifteen days' confinement for punishing a refractory pupil, and was actually thrown into a jail. This outrage shows that if we give these people full liberty, it will not be possible to live there and elevate them in the manner the people at home desire. Life and property of white men are not safe if laws are administered by Malays. When accused we have a right to a trial by our peers, and if we abdicate that right we must suffer as we did in the South in carpet-bag days. Hence, it is evident that no white man should ever be tried by a Malay judge or jury, any more than a white man in Montana would ever submit to being tried by a Crow Indian judge or jury. We must have white United States courts to try white men for offenses just as we have white courts at home for the trial of white men committing offenses in Indian reservations. We must not surrender our sovereignty nor be tried by men not sovereigns, for they are not our peers.

In the Philippine Islands and Panama American citizens have deprived themselves of the right of a trial by jury. This is necessary now, but it will be corrected in time. Americans must go there to help these people or we cannot do our duty by them, and it is intolerable to think that at any moment a self-sacrificing American may be erroneously charged with crime and then refused a trial by jury—a birthright which our ancestors purchased with oceans of blood.

The universal contempt which both Jews and Christians have bestowed upon Esau for selling his birthright, would seem to

indicate that it was unnatural, and unnatural acts are always highly immoral and subject to our contempt. It seems that it is a matter of selection—this reverence for an heritage—for by it alone races, clans or families survived as it gave them something to start on and gave them an immense advantage over those who did not have a birthright or heritage, or who rejected it. By valuing an heritage, races secured the accumulated wisdom and property of all prior ancestors, and must survive over races which would reject parental advice and property. The survival of these men produces an inherited reverence for birthrights. Now let us look at our superior intelligence and see if it is not a birthright in nature, giving advantages as well as the commensal duties which accompany all rights. For thousands of years our ancestors survived because they were more intelligent than their brothers and sisters who were killed off by natural selection. We then have inherited these greater variations of brain due to an awful loss of life of ancestral relatives—a heritage of supreme and vital value. We have thus a birthright which gives us dominion. Are we to surrender it? To give up our sovereignty in the Philippines and give it to the Filipinos would be as unnatural and immoral as Esau's surrender of his birthright to the lying Jacob.

## MUTUAL AID

Our motto is *The Philippines for the Filipinos*, and it does not mean that American interests are to be killed. The future prosperity of the Islands and their peoples demands that American capital be introduced to develop the wonderful resources of the Islands, but this cannot be done if we do not make it profitable for the capital to come in. Unwise laws, since repealed, did discriminate against foreign capital, and as the Filipinos had little money, the prosperity of the Islands was injured several years. The Philippines are in the condition which this country occupied only a generation or two ago, when it was without money and had enormous resources to develop. So we induced European capital to come in profitably. We settled the Civil War with money borrowed abroad, and this money also built our railroads, opened the country to settlement and worked the

mines, but we could not allow Europeans to exploit the country at our expense. It was a mutual affair—profitable to both—commensalism. Without this money loaned to us so lavishly we could not possibly have attained our present prosperity, and unless we lavishly lend to the Philippines they will not enter into theirs.

Commensalism or mutual aid is, then, the basis of the relation of Aryan democracies to lower races, and though enough instances have already been given for illustration, it will do no harm to repeat the case of Egypt. The very existence of the British nation depends upon the control of both ends and the middle of the Mediterranean—Gibraltar, Suez and Malta—and the occupation of Egypt is as necessary as the occupation of the Transvaal. They have a motto that Egypt must be for the Egyptians, and though Englishmen are at the head of every part of the government in every branch and control the army and finances, Lord Cromer and Lord Milner have both insisted that their intention was to teach the Egyptians as rapidly as possible how to govern themselves. This does not mean that the small brained native will be able to do what requires Aryan brains—they have never done that, and never will. But it does mean that the work shall be done by natives under British control, the English officials being supervisors of self-governing natives, if we can call this self-governing. But the point is, the greater the prosperity of Egypt, the greater will be the reflex prosperity of Great Britain in her control of the East. *Prof. J. W. Jenks* has shown that the prosperity of Egypt has already reflexly benefited the English,* but the enormous benefit to the Egyptians themselves must be considered.

The Boston *Transcript* says: "A decade ago Egypt saw bankruptcy staring her in the face. *Lady Duff Gordon* wrote: 'I cannot describe the misery here now—every day some new tax. The fellaheen can no longer eat bread. The taxation makes life almost impossible. The people are running away by wholesale.' Of those sorry times another observant says: 'The peasant went about his daily task with bowed and trembling heart, starting with fright if addressed by a person of superior rank.' Justice

* *International Quarterly* 1902.

was unknown; corruption prevalent. The body politic suffered from a shattered constitution, every organ diseased. The native was still living in the Stone Age. And then came Lord Cromer's active measures of reconstruction. Stability is given to the whole situation. Egyptian credit restored, European capital attracted, the value of trade doubled, financial conditions (by vast drainage and irrigation works) made independent of the vicissitudes of the seasons, 1,400 square miles of lands added to the cultivated area, taxes lightened, justice established, education advanced, the corvee system practically abolished, disease reduced—in short, a new Egypt evolved out of the wreckage of ages."

*Mr. J. E. Woolcott,* writing of Lord Cromer's new Egypt, says: "The transformation of Egypt since the British occupation is more wonderful than any story that Oriental imagination could conceive. The fellaheen can hardly realize that they are not living in some present dream from which there may be a rude awakening. During my sojourn in Egypt I saw an offending Prince within the walls of a prison and the Governor of a Province deposed for extorting money from the people for the purposes of public rejoicing. I saw, too, taxes removed which bore heavily on the laboring population. I feel proud, then, of the work done in Egypt by England, and of the great Englishman to whom the Egyptian peasant owes so great a debt." Still more eloquent is *Lord Milner's* tribute to Lord Cromer. "He has realized that the essence of our policy is to help the Egyptians to work out, as far as possible, their own salvation. And not only has he realized this himself, but he has taught others to realize it. The contrast between Egypt to-day and Egypt as he found it, the enhanced reputation of England in matters Egyptian, are the measure of the signal service he has rendered alike to his own country and to the country where he has laid the foundation of a lasting fame." The poor fellaheen called the period of Lord Cromer's régime "the time of blessing."

Could anything show more clearly the true commensal relationship of Aryan brain and tropical laborer? It is a true picture of Egypt for the Egyptians, and the greatest curse to the Egyptians will be English withdrawal from the country.

Egypt and the Philippines will be parallel cases of prosperous countries, whose people cannot bring about prosperity, but who are made so by Aryan brains, and the prosperity will help the Aryan reflexly. The only difference will be the fact that the Egyptian set of advisors come from an Aryan democratic monarchy, the other from an Aryan democratic republic originated by people of the same blood. In each case it is commensalism and the exact opposite of imperialism.

# CHAPTER XXIV

## THE BALANCE OF COMMENSAL RACES IN DEMOCRACIES

LOWER RACES DEPENDENT UPON THE HIGHER—THE TRADERS—JEWISH ACTIVITIES—OTHER NEEDED TYPES—ARYAN DISTRUST OF THE ALIEN.

### LOWER RACES DEPENDENT UPON THE HIGHER

Though civilization increases the saturation point, and though savages left to themselves cannot exist in thick masses, yet it is an apparent paradox that when lower races have civilization forced upon them, they can exist in masses too dense for the race which upholds the civilization. It is due to the fact that the higher the race, the greater are its necessities. Things necessary to a higher are luxuries to the lower, or may even be injurious. Hence, in the slums of our cities are dense masses of lower races in houses once occupied by a few Aryans, and the descendants of these Aryans have moved out to the suburbs where they have the same density of population as their ancestors. All the lower races in civilization, then, are actually a species of animal under domestication, increased in number hugely by the sanitation forced upon them and kept up by the Aryans. Hence, there is a complete commensalism between the Aryan and every lower race living in his civilization.

There is not the slightest doubt that this country's prosperity is in great part due to the labors of the Turanian (or Alpine) and Semitic (or Mediterranean) types. The Aryan type cannot do the labor, particularly in the mines and on the Southern farms, though it generally furnishes the guiding power. Nevertheless the exceptional abilities, developed among the other types now and then, have been our salvation. Abraham Lincoln was of the brunet prehistoric non-Aryan type of England. Some of our best and most valuable citizens are of the Jewish faith, and

that means, of course, that they are of any race. Cæsar was probably a Mediterranean, though his portraits make him an Aryan of the North, and Napoleon was of the same race as Hannibal—a Mediterranean. Similarly we find that an enormous number of our great men in every walk of life are brunets, and generally of the Mediterranean or neolithic type—what we have called Semitic—men of short stature, long head, long, oval, refined face which does not project as in the negro and does not have prominent cheek bones. The English type of the bronze age—the broad head with rugged features and beetling brows, is generally submerged and as a rule does not furnish as much brain as its continental form, the Alpine type. As before explained, England's greatness depends upon the Aryan types which have migrated to it, but the other types, as in America, do furnish great men as occasional variations from the average.

Although we have derived enormous benefit from the non-Aryan elements in the population, there is an intense prejudice against them similar to those curious outbreaks against alien races so noticeable throughout Europe. It seems as though disturbance always results if one type becomes so strong as to injure the other. They must preserve a proper balance. *Mahaffy** speaks of the alien shopkeepers of ancient Greece, disqualified from citizenship, so that no citizen could afford to engage in trade—taxed in peace, persecuted and plundered in days of danger and distress, recouping themselves by enormous profits and usury—and he compared them with the "Jews in the Middle Ages, who lived all through the cities of Europe without civic rights, or landed property, merely by trade and usury. They were despised and persecuted, but still tolerated as useful, and even necessary by the governments of those days." It is quite likely that these shopkeepers of ancient Greece were the descendants of Semites who ruled the land prior to the Aryan invasion, and identical with the modern Greek shopkeepers who have percolated through Europe, America and Asia as far as the interior Philippine towns. This is so important to America, which has derived such incalculable benefits from the Jewish citizens, that it is necessary to go into more details.

* "Old Greek Life."

### THE TRADERS

The shopkeepers of a country are not necessarily of the racial type of that place. The real "people" are those who live upon the soil—farmers, and industrial workers, who are physically adjusted to the climate. Most of the races of man seem rooted to the soil of their native lands, with narrow views of life, and so ignorant of outside affairs as to lose touch with other nations. They need assistance to help them to dispose of their products and to import other necessaries. This is where the Jew shows his tremendous importance in the world. In one sense, he is the link which holds the modern world together—the trader and financier, without whom prosperity and modern civilization are impossible. He is the middle man, not really of any race but between races helping each to survive, but bleeding them when he becomes too numerous. He is a born buyer and seller—the survivor of the fittest types—of a long process of selection, during which only traders could survive. All other avenues of labor were barred by the racial instinct of the nations among whom they settled. Indeed, there is plenty of evidence that when Jews are able to take up with national life they always cease to be Jews. We have absorbed all those who came here in the seventeenth and eighteenth centuries, though the names persist in Christian families. He is the life of that trade which we have shown to be our modern necessity. He organizes great business houses now as he did in ancient times, and he is the great promoter, always thinking of means of exchanging goods. No wonder he gets rich—he deserves it as a reward for his abilities and past sufferings. Exclude him and we suffer at once, for we are unable to do the work ourselves.

It is to be noted that the Jew as a race never took part in the basic industries of a nation, and therefore, could not become part of it until modern times. He cannot farm, as he is physically unfitted for it. Even now his political disabilities are kept up because he is too frail to take part in national defense. In Russia he demands protection and cannot protect himself. Even in his favorite trade—tailoring—he is, in a sense, a helper to the

people among whom he lives. The Jew, then, is a typical illustration of a commensal race, welcomed as long as he renders a returning benefit, but driven out or killed off as soon as he becomes so numerous that he is a harmful parasite and a national disease. European nations have repeatedly undergone a process of disinfection in this regard. The same law applies to the Jew as applies to a bacillus or any other organism which may be beneficial if few and in place, but deadly if numerous and out of place. The reasons for this harmfulness of the Jew when numerous are beautifully brought out by *Roger Mitchell*, in *Popular Science Monthly*, for February, 1903. He shows conclusively that the Jew was always welcomed by European nations as a commensal organism, living in the home of another organism, having no part in the national life, and desired for his benefits, but just as soon as he becomes so numerous as to be an economic disease he is eradicated. The persecution of the Jew, then, is and always has been a natural law, because it is necessary for survival of the supporting organism.

It often takes the form of a religious war or a race war, but at basis it is an economic war. He is never disturbed until he is harmful by being too numerous, and then he is deprived of certain rights exactly as the Roumanians deprive the "German settlers, Italian workmen and other foreigners as well." It is not a persecution of the Jew as Jew, but an extermination of an invading disease.

*Prof. Goldwin Smith* has also analyzed all the ancient persecutions of the Jew,* and shows that this law holds in every case; that is, the Jew by overstepping the limits of his usefulness has invariably brought trouble on himself.† The last outbreak of Roumanian peasants was due to the extortion practiced by the Jewish lessees of the extensive estates of absentee landlords.

* *Independent*, June 21, 1908.

† "Take any race you please, with any religion you please, but with an intensely tribal spirit; let it wander in pursuit of gain over the countries of other nations, still remaining a people apart, shunning intermarriage, shrinking from social communion, assuming the attitude assumed by the strict and Talmudic Jews toward the Gentiles, plying unpopular, perhaps oppressive, trades, and gleaning the wealth of the country without much adding to it by productive industry; you will surely have trouble. Offense will come. If it takes the form of violence or outrage it will be criminal. But it will come, and it will be the consequence, not of a fiendish disposition on the part of the people of the invaded nations, but of a calamitous situation."

The Finns not only refuse to share their sovereignty with Jews, but will not permit them to become too numerous. This typical action of Aryans, who themselves have been fighting for their own liberty, has been widely misunderstood and unjustly denounced as persecution.

The dispersion of the Jews as commensal organisms in other nations was a very early phenomenon, antedating the birth of Christ long enough for them to have lost their mother tongue at that time. In no other way can we explain the story told by *Luke*,* where the Holy Ghost descended upon the Disciples so that they talked in divers tongues to Jews who had come up to Jerusalem from other places. The first apostles of Christ are said to have gone out "as far as Phœnicia, and Cyprus and Antioch, preaching the word to none but to the Jews only."† Synagogues are mentioned as far as Salamis. The exodus from Egypt was probably an early expulsion, and is an identical phenomenon to the present exodus from Eastern Europe. The Czar is the modern Pharoah. There is some glimmering of an identical fact in the Babylonian captivity where the release of the Jews was probably a necessary expulsion.

It is generally believed that when Ferdinand and Isabella expelled 300,000 Jews from Spain, in 1492, it was because they were too numerous, and yet they were of such importance that the nation has never recovered the vitality lost by this foolish act. In 1275, Edward I was compelled to deprive the Jews of citizenship; the Archbishop of Canterbury, in 1285, destroyed all the synagogues in London, and five years later the Jews were expelled for their usury and extortion. Many were massacred by the sailors—a state of affairs like that in Russia today, where the massacres indicate an ethnic disease. Yet Russia would suffer if all the Jews were exiled, for they render services to the peasant which no one else can do. Oliver Cromwell was compelled to recall the Jews, in 1654, because it was necessary to improve commerce. He would have made them citizens if he could.

* Acts II. † Acts XI.

### JEWISH ACTIVITIES

As a result of past persecutions the Jew has developed variations which fit him for the specialties of modern civilization to a far greater extent than Aryans, who in time will evolve identical variations, but for the present the Jew is taking the lead in many walks of life, being our best specialists therein, though he cannot yet indulge in outdoor work, mechanical employments or agriculture. Now, the Jew as a race will not fight for his existence, but he demands that other races shall sacrifice themselves for him and preserve him. He exists now because he has been protected by the soldiers of the world from massacre. He will not volunteer as a soldier except in small numbers—a very small percentage of the race. He survives by the spilling of blood of his protectors. It is said that some of the Jews in New York were terror stricken in the Spanish War, and fled to the interior even when there was not a particle of danger. There are men in every race capable of money getting but too timid to fight to protect it. The blackest blots of the Boer War were made by the rich Englishmen who caused it and who took to their heels and whined for protection as soon as actual fighting began. According to common reports, very few of them volunteered.

Why is it that Prussia has barely 400,000 Jews, while a little further to the east in Russia there are 5,500,000, and this in spite of liberal treatment in the former country, and dreadful repression in the latter? Clearly, they are needed as commensal organisms among the stupid Russian peasantry who have not the intelligence to do what the Jew can do better for him. In Prussia there is a far less field of usefulness and fewer can crowd in—the Prussians furnish plenty of types to do these things for which the "Slavs" depend upon Jews. In addition, this Jewish area of Europe is more or less in the trade routes between Europe and Asia, and they have settled as middlemen because needed to carry on that trade, but England and Wales can support a bare 250,000, and Scotland scarcely any. That East Central part of Europe divided up among Austria, Germany

and Russia, can never become free, and the large proportion of Jews in it was responsible for the loss of Poland's nationality. There were too many male residents who could not fight for their country. The organism,* therefore, died of this ethnic infectious disease. The same thing can occur in America, which would be divided among European nations, if more than half of us would refuse to fight for liberty.

Many Jews do take an active interest in politics and war. Many of our best statesmen and soldiers have been Jews—several thousand served in our Civil War, both North and South, and have distinguished themselves in various civic duties ever since the organization of this government. *Dr. Madison C. Peters* has written a great deal in favor of the Jews, and shows that they have done more than we usually give credit for. There is no reason why the Jew should not become a part of the nation in which he lives, for, as we have already shown, he is ethnically like the nation which harbors him. In the North of Europe, he may even be an Aryan. Nevertheless, the record shows that in proportion to their numbers, they do not yet perform their share of civic duties. We have protected the Jewish commensal organism until it has multiplied to an extent which threatens to be harmful.

It is to be noted that New York City is in the main trade route from America to the rest of the world, and that Jews always collect in such a place because needed. Manhattan and its vicinity is, therefore, another Poland, where the Jews are liable to collect in greater numbers than good for them or the supporting population. They originated in an Asiatic trade center, and have always flocked to new ones in which they will permanently remain. They have already taken possession of much of Baltimore, New Orleans and San Francisco, and every railroad center in the interior.

In the ten years, ending in 1906, there were seven times as many Jewish immigrants as in all previous years, and the numbers in the United States increased from 150,000, in 1860, to 1,500,000, in 1906, so that we harbor twice as many as Germany. In New York City alone there are more than 800,000, and

* Poland's Sovereignty.

they constitute about one-fourth of the population of Manhattan, many living in abject poverty, and 75,000 to 100,000 being more or less dependent upon alms. They have developed a world of "vice and crime," "irreligiousness, lack of self-restraint, indifference to social conventions, indulgence in the most degraded and perverted appetites," and "growing daily more pronounced and more offensive."* Surely this is a picture of parasitism, and ethnic disease. "The tendency of Hebrews to prosper diminishes as they congregate together, and, quite apart from the matter of civil disabilities, there is a proportion above which they are unable to thrive in any given city or town."† To overcome this, "observant Jews have adopted in recent days the plan of planting out their people who come here, singly or by families, and the further apart the better."‡

The European anti-semitism, which has aroused our indignation, is bound to appear in America as soon as the Jews become too numerous. Although they enjoy unprecedented religious liberty, yet when they are in the majority they show a tendency to persecute Gentiles and change the Christian customs of the land. School teachers have referred slightingly to Christ. Such intolerance is already creating intense indignation and may cause political disabilities. The safety of the Jews depends upon being in a controlled minority.

One reason for the successful persecution of the Jew is his inability to combine for mutual offense and defense. His selfishness prevents. No nation can become strong without self sacrifice now and then, like the Japanese. The Chinaman will not die for his country, and his country is weak. Aryan civilization demands a high grade of altruism which the Jews do not possess. Selfishness is part and parcel of their sphere of usefulness, for if they combined to oppress the natives among whom they live, neither could survive. We should not blame the Jew, then, for the characteristics which make him valuable. Nevertheless, if he is unwilling to do his share of the fighting for his country, he should not be a voter—provided, of course, he is physically able.

* Twenty-seventh Annual Report of the United Hebrew Charities, October, 1901.

† Mitchell.

‡ Jacob A. Riis. *Century*, March, 1903.

This is why his political disabilities will probably be continued permanently in Russia. Indeed, it is not at all unlikely that tall Jews do become amalgamated into the supporting organism by force of circumstances, and this continual elimination leaves the remainder shorter and frailer than the surrounding people—an universal phenomenon discovered by *Fishberg*.

### OTHER NEEDED TYPES

The Chinese in the Philippine and Malay Archipelago are commensal, and precisely like the Jews in Europe, useful and beneficial when scattered and few, but parasitic in large concentrated numbers. They can take no part in public affairs, indeed, are wholly unfitted for such work, for their brains are appropriate for the barbarous conditions of China. They demand protection of life and property, but refuse to aid in protecting society from its enemies. They cannot organize for mutual protection on account of their extreme selfishness and utter lack of altruism. When Chinamen have become so numerous in the Philippines as to constitute an ethnic disease, they have been thinned out by massacres. If the Chinese and Jews had done their share of self-sacrifice for the common good, they would have been parts of the organism. The absorption of the Jews in the future will be explained in a later chapter.

Our Italians are, to a large extent, aliens to the organization they serve as a necessary element. Large numbers have no intention of making America their permanent homes. The camorista, "black hand" and mafia organizations among them show how dangerous they may become if too numerous. In an Aryan democracy they are out of place, and the type was not a part of the old Roman Aryan democracy.

*Prof. Edward A. Steiner*, of the Iowa College, Grinnell, Iowa, himself an immigrant twenty-five years ago, has closely studied the various streams of humanity pouring into America. He has lived with them, traveled with them and worked with them, and surely should know their general characteristics at least. His conclusions* are not at all hopeful as to the outcome, and

* "On the Trail of the Immigrant."

he recognizes the futility of expecting some of them to understand governments intended for brainier types. He makes a sad picture of the Slavs, who have no idea of patriotism, for only six per cent. plan to remain here, and most of them are voted like machines and herded like sheep.

It is generally believed that negro slavery was a commensal relationship necessary in developing our South, as similar slavery was known to be necessary in the development of early civilizations, in Mesopotamia, Egypt, etc. Nevertheless, we were in too great a hurry. The same development would have come later without slavery, and we would have been spared the awful disease produced by too many slaves. We paid the penalty from 1861 to 1865, and were properly bled to reduce the fever. While convalescent we committed another ethnic blunder by exalting the lower organism to a place which made it sick. The negro, like the Jew, is therefore undergoing a degeneration which destroys his commensal usefulness to us. Until he dies out, as he must in time, in accordance with natural law, it is to our interest to restore his proper environment, teach him to be useful to himself, so that he will be healthy enough to render good to us in return.

### ARYAN DISTRUST OF THE ALIEN

All these ideas are now forming themselves in the popular mind, and there is growing distrust of the immigrant. It is explained in an article by *Dr. A. J. McLaughlin.** He calls attention to the fact that native-born Americans have always distrusted the immigrant and been jealous of him, objected to giving up to him the land and its sovereignty. There was a little body even in the Constitutional Convention who wanted to exclude him from the sovereignty, but they succeeded merely in restricting the office of President to a native-born citizen. Then came the Alien Act of *John Adams'* administration. The Hartford Convention, in 1812, said: "The stock population of these States is amply sufficient to render this nation in due time sufficiently great and powerful." We have shown that this opinion of the Hartford Convention was absolutely correct, and

* *Popular Science Monthly*, January, 1903.

that with our rate of increase in 1812 we would be just as numerous if we had no immigration after the Revolution. "The very municipal government of New York expressed apprehension at the handful (of immigrants), less than 10,000, that came over in 1819–20." Then, in 1830, *Senator Merrick*, of Maryland, tried to exclude aliens from pre-emption rights on public lands, and prior to this *Senator Clayton* tried to limit the franchise to natives born in the new territories of Kansas and Nebraska. Finally, in the fifties, came the Know-Nothing party, which was defeated by the vote of aliens.

The new distrust is not of the alien as an alien, but of the alien races which have never possessed a share of the sovereignty of the Aryan democracies in which they lived. Until twenty-five years ago our immigrants were almost exclusively types of the Northwest corner of Europe, where we have found the brains of the world. Up to that time the only effect of immigration was to replace earlier Aryans by later Aryans who had larger birth rates, as they were accustomed to a lower scale of living and could raise more children than the native born. And the newcomers have abundantly proved their blood by shedding it when necessary. They amalgamated because they were of the same breed as the Revolutionists. A change took place twenty-five years ago. The immigrants are now from parts of Europe and Asia where there is much less brain than the Aryan possesses—men of different breeds, difficult to amalgamate with Aryans. "Hordes of illiterates," "scum of Europe," "paupers," Hebrews, Poles, Slovaks, Croatians, Magyars, Italians, Syrians, who cannot understand Aryan democracy, have never been able to resist Aryans, have waxed numerous in the high civilization built up by Aryans for thousands of years and have always been commensal organisms.

Our immigration first started from the country with London as a center, then the people behind that began to flow, so that the center moved East and took in Scandinavia; by 1890 the center was in Paris, but went east so fast that in 1906 it was in Constantinople. *Gustave Michaud** showed that whereas in 1835–90 the Teutonic (or Baltic) type of people constituted

* *Century*, March, 1903.

eighty-seven per cent. of immigrants, Alpine (or Asiatic), ten, and Mediterranean, three, it had changed in 1890–1900 to Baltic, fifty-three; Alpine, thirty-two; Mediterranean, fifteen, and in the previous two years, Baltic, thirty-five; Alpine, forty-two, and Mediterranean, twenty-three. We are getting more and more of the Asiatics and lower races, who will be our future peril. According to *Ripley* (*Atlantic Monthly*, Dec., 1908), of the 1,250,000 immigrants in 1907, only one-sixth were of the Baltic race, which has been controlling the world for so long a time, the rest being the types which have never been efficient unless under that control: the Mediterranean race, one-fourth; Alpine, one-sixth; Slavic, one-fourth, and Jews, mostly Russian, one-eighth.

Hence, that growing distrust of the immigrant is the realization by *the people* that the body politic is sick. They have not made the exact diagnosis yet, but they will soon. The political microscope will be adjusted and they will find that instead of the healthy, normal Aryan tissue harboring a few commensal, healthy, Semitic, Hametic and Turanian organisms, it is swarming with them. The toxines produced by the parasites are causing the symptoms. Some of the parasites have grown large, fat, rich, and powerful, and bid fair to make the host very sick. Things always have to get worse before they get better. A sick man never calls a doctor at first; he waits until he is worse. The body politic will not call a doctor until it is sure it cannot "throw off" its disease without paying for medicine. It sometimes succeeds—indeed, generally does—but often it becomes very sick and has to take the medicines made necessary by ignorance and violation of natural law.

# CHAPTER XXV

## THE UNNATURAL DEMOCRACY OF AMERICA

SEARCH FOR WEALTH—INCOMPETENT VOTERS—ASYLUM FOR THE UNFIT—LOW MORAL TONE OF THE UNINTELLIGENT—EDUCATION DOES NOT ENLARGE THE BRAIN—FITNESS OF CONSTITUTIONS.

### SEARCH FOR WEALTH

The undue increase of the lower commensal races in the United States has already brought about a deplorably unnatural condition never existing before in Aryan democracies, which are all based upon the mental ability of the aristocratic elements possessing the sovereignty, and lack of it in the lower commensal units having no share. The first cause of this is the fact that the use to which this country is put has been reversed in the last century. The pilgrim fathers came here for a home and founded a democracy which was designed to protect the individual in life and liberty. There was a desire to develop the country only so far as it enabled the people to gain the above ends. At present, after a gradual change, which began about seventy-five years ago, the whole trend of events is toward developing the country, increasing wealth and prosperity, irrespective of its effect on the mass of people. There is a tremendous demand for laborers, and by the ordinary laws of supply they are flocking in from Europe. The last remnant of the old régime is the Contract Labor Law, designed to protect laborers already here by excluding those who come under contract to work, or who are not honestly looking for a new home. The law excludes very few for it is aimed against a natural law, so that the old régime is really over. Everywhere, the manufacturers and farmers are calling for and obtaining laborers to help make wealth for the few. Wealth, and not citizenship, is the reason for inducing immigration.

It is wise to look ahead at the kind of democracy which is to result. If it is to be stable it will necessarily be in the hands of a small element. If it is to be guided by the less intelligent we can well see that our fate is to be the civilization of the Mediterranean and not that of Northern Europe. Already the lower elements are pulling down the standard set up by the ruling minds from Northern Europe. American city governments are such hopeless failures in comparison to those of Northern Europe, which do not violate the laws of democracy, that a chapter devoted to this one subject will go a long way in helping us to understand why we should not make the same error in the tropics.

### INCOMPETENT VOTERS

It is remarkable that we theoretically assume that a man of Blaine's ability is the voting equivalent of an imbecile who sells his vote for a dollar, yet the mistake is quite natural after all. The colonies were about as near to being homogeneous democracies as could well occur in modern times. The colonists were bands of equals, seeking new homes, and it was inevitable that they should insist upon manhood suffrage. Immigration, until the present wave of lower races, did not alter the conditions, and all the former fear of the alien having proved to be baseless, we are only confirmed in our belief that all men are equally entitled to vote, though nothing could be more false. The new elements have crept in so slowly that we did not realize what they were doing. At first their votes had no effect whatever, but now it is entirely different, and it is all due to the fact that the modern industrial civilization and mad rush for wealth have increased their numbers. In the first place the immigrants who are now imported for their muscular power, almost like domestic animals, must settle where they can sell their labor, so that the vast majority remain in the cities. In Chicago, there are hordes of them. It is a babel of tongues.* Newspapers appear in ten

* According to Prof. D. C. Buck, of the University of Chicago, the following were the approximate numbers of people speaking languages other than English in that city in 1905:

| | | | |
|---|---|---|---|
| German | 500,000 | Bohemian | 90,000 |
| Polish | 125,000 | Norwegian | 50,000 |
| Swedish | 100,000 | Yiddish | 50,000 |

languages, and church services are rendered in twenty. It is the second largest Bohemian city in the world, the third Swedish, the fourth Polish, and the fifth German (New York being the fourth). These people generally live in colonies, and in the center of each Catholic type is its church; one of which is said to have 40,000 Poles who attend masses each Sunday from dawn to noon, streaming in and out. In New York, we find the same babel of tongues and the same conditions of "foreign colonies," each a city in itself.

Instead of being the guided element, they have suddenly become the guides—the rulers—and have thus caused the growth of that curious American feeling that society is something to be robbed at every opportunity. They are not able to play the part of rulers, and are taking on a parasitic existence, such as bacteria do when given the chance. Too many are "working" the public instead of working for it. It is a new disease and seen mostly in America, though Europe is not free of it.

The colonial village was like the ancient Aryan one, a democracy of equals which we are trying to fit into a complicated machine, where no two men are equal, where the vast majority cannot possibly go to the folkmoot, where the work to be done requires brains which few possess. Americans think they can fill any position from senator to street sweeper, and as they have a partnership in the sovereignty they demand the "jobs." Our ancestors would have cleaved their heads open instead of giving them "jobs." *Sydney Brooks*, in the *Outlook* for April, 1906, said that the prominent characteristic of every American is the

| | | | |
|---|---|---|---|
| Italian | 25,000 | Finnish | 500 |
| Danish | 20,000 | Scotch, Gaelic | 500 |
| French | 15,000 | Lettic | 500 |
| Croatian and Servian | 10,000 | Arabic | 200 |
| Slovakian | 10,000 | Armenian | 100 |
| Lithuanian | 10,000 | Manx | 100 |
| Russian | 7,000 | Icelandic | 100 |
| Hungarian | 5,000 | Albanian | 100 |
| Greek | 4,000 | Bulgarian (less) | 100 |
| Frisian | 2,000 | Turkish (less) | 100 |
| Roumanian | 2,000 | Japanese (less) | 100 |
| Welsh | 2,000 | Portuguese (less) | 100 |
| Slovenian | 2,000 | Esthonian (less) | 100 |
| Flemish | 2,000 | Breton (less) | 100 |
| Chinese | 1,000 | Basque (less) | 100 |
| Spanish | 1,000 | Gypsy (less) | 100 |

inborn feeling that he can fill any office better than his neighbor, that is, the prominent feeling is now aristocratic even to the lowest layers.

### ASYLUM FOR THE UNFIT

There are many who believe that America should be the asylum for only the oppressed of the world, but it is not generally known that the oppressed are the unsuccessful, unfit, unintelligent, who are crowded out of Europe by the dominant types. Public opinion has even been reflected in our militia law of 1903, which contains the following paragraph: "*Provided*, That nothing in this act shall be construed to require or compel any member of any well-organized religious sect or organization at present organized and existing, whose creed forbids its members to participate in war in any form, and whose religious convictions are against war, or participation therein, in accordance with the creed of any said religious organization, to serve in the militia or any other armed or volunteer force under the jurisdiction and authority of the United States."

That is, there are commensal organisms among us unable to fight for themselves, and we must protect them like the Jew, and when our country is invaded by enemies some of us must die to save the women and children whose husbands and fathers will not protect them. It seems strange that there is a man so lacking in virility that he would prefer to see a band of invaders burn his house, and kill his wife before his eyes, rather than take up arms in organizations to defend them—but it is so, and the law says we must protect them. They render good now, much good, in promulgating the modern idea that wars must cease, and that nations must struggle for existence in other ways. The law can stand until the non-fighters are so numerous that there are not enough of the fighters to protect them. As soon as European nations see that state of affairs, our Monroe Doctrine will crumble to pieces and they will invade the territory to which they have cast covetous eyes so long. As in the case of Poland, the people will not be strong enough to resist them. Before this state of affairs comes about we will revoke the law, because we will not stand idly by and see our homes stolen when

there are millions of men to defend them. We will simply call for conscription, and if the men drafted organize to resist the draft they must be killed off.

Our intense altruism and generosity in giving protection and power to the lower commensal organisms has thus caused them to multiply unduly in environments unsuited to them, and they have produced our municipal diseases. Our cities are like abscesses full of parasites, our towns are pustules, and our villages are "bumps" without pus but with the germs under partial control. We are suffering from chronic, ethnic furunculosis or boils, and like Job must suffer a long time and get worse until, perhaps, we go through a course of purging with sulphur, saltpeter and charcoal, and venesection, too. As yet we do not know what is wrong with us, we feel the fever and the chills and the pain (when the city grafters steal our taxes), and have a headache, and bad taste, and do not like to talk of it. We are afraid of the knife and do not like medicine, so we are poulticing the boils with "improved reform" charters, and only make them worse. Learned statesmen write abstruse articles, even books, on the topic, but few of them understand the case, for like the medieval doctors, they know nothing of biology.

Another law violated by our municipal corporations is the division of labor of all organization. We cannot do good "team work" unless each man is placed in the nook he can fill, and is kept there. A baseball team would be a farcical thing if the players changed places every inning. Likewise, modern civilization demands specialists in limited spheres, who must be kept there, just as nature keeps one cell in the liver and never promotes it to the brain. So the cities must find specialists for every kind of service, and keep them at it for life.

The town of Ansonia, Conn., was sorely punished for its violation of this law. Some brainy managers and capitalists organized manufacturing concerns, which made it possible for 13,000 people to live there, mostly union workmen, of course. They all forgot that though a workman has rights which must be respected, he is not necessarily a better manager than the managers themselves. So they concluded to turn over the city administration to the workmen and run it on trades-union ideas.

The result was prompt. The city was loaded with an enormous tax rate, and there were no improvements to show for it; there were shortages of funds, illegal appointments, indictments of the mayor for conspiracy against public property, and the meetings of the council were weekly opéra bouffe proceedings.

In San Francisco, the mechanical workers organized themselves to such a degree as to be injurious to the guiding and directing element and reflexly injurious to themselves. They even elected their own members to office, but when the earthquake disaster came the Mayor did not turn to his own party for aid, as they were not men of intelligence, but the committee of public safety was composed almost exclusively of the type of men whom the workingmen had excluded from control of affairs. If stupid popular clamor should ever drag us into a prolonged war, the same phenomenon will be seen—as it is the rule—the guiding elements will guide and the lower will be guided. Perhaps a great war might reform our whole political system to a natural basis.

## LOW MORAL TONE OF THE UNINTELLIGENT

The low moral tone in the United States is an index of the low intellectual level of the lower masses, for after all is said morality and intelligence are more or less synonymous. To be sure, every now and then we find a one-sided man, whose high intellectual gifts are specialized, and who attains success in a limited sphere, in spite of a low moral sense. Occasionally, they are caught up. Too often stealing is the basis of riches, so that mere possession of wealth is no criterion of being a valuable citizen. Omitting these exceptional cases, we do find that the code is low in races lacking in brain development, and progressively rises with higher average mentality. The negro cannot be made to understand that stealing of food is wrong, and in his native state, food is public property. All types invariably bring their moral codes with them, and hold to them in spite of education. They resent the Aryan laws under which they now live—laws applicable for the Northwest corner of Europe, but not appropriate for the Mediterranean basin or Central Europe.

They will not obey such laws, and that is the reason there is such lawlessness in the United States, a condition of affairs which is being constantly commented upon. Lawlessness is not the exact term to use, for the conduct is what is normal or natural to the types. What is considered a cold-blooded murder in Scotland may be a laudable act in Sicily, and a Sicilian in America cannot be made to look upon the law against murder as do citizens of Scotch ancestry.

The crimes, therefore, which burden our courts are the result of the tremendous migration of lower types into a higher culture. Scotland would have the same if a million Mediterranean peasants were to migrate to it. It is not surprising, then, that there should be many thousands of murders in the United States every year, and that crime and pauperism should cost us $6,000,000,000 annually. If it were not for these expenses our annual increase of wealth, now only $5,000,000,000, would be doubled. Even so great a man as Chief Justice *Walter Clark*, of North Carolina, forgets our cities when he talks of our "greater capacity for self government," and the confidence we have acquired in ourselves from experience. We have less confidence, and our hordes of immigrants lower our capacity. He says that more than a century has proved the fallacy of Alexander Hamilton's fear that the people could not be safely trusted with their own government—but Hamilton was right.*

The popular conception of the States is that it is an agency to prevent people from doing what they wish to do. How to circumvent the law is, therefore, a question everybody is engaged

* "A compilation of statistics and statements by representative newspapers, judges and others concerning the increase of crime and lawlessness in the United States, which appears in *McClure's Magazine*, for December, 1905, contains an appalling record of moral, social and business degeneration. The first and most startling fact stated is that there are at present four and a half times as many murders and homicides for each million of people in the United States as there were in 1881. Other crimes of all sorts are shown to have increased in like proportion confirming the statement made by President Henry Hopkins of Williams College before a public meeting in New York, that 'there is abounding evidence of an alarming increase of crime of every sort, but especially of the kind that undermines honesty, chastity and respect for law.' Similar statements are quoted from leading newspapers, charges by judges in criminal trials, and responsible citizens in all parts of the Union. A typical expression is that attributed to an Alderman of Chicago: 'No one respects the law. No one respects the courts. The courts don't respect themselves.'"

in solving for himself. Chief Justice *Charles B. Lore*, of the Supreme Court of Delaware, directly charged the great financiers and captains of industry with being chiefly responsible for this degradation of popular sentiment, through what he described as their "gigantic frauds and lawlessness in the pursuit of wealth"; but financiers could not do this if the lower layers of society disapproved. "Wherever contracts or franchises of any kind are to be secured from a community, leading citizens are found in the ring to rob their neighbors, managers of corporations are bribing lawmakers, lawyers for pay are helping their clients to bribe safely, and jurors are refusing to render just verdicts." No worse indictment than this could be brought against any people. It discloses conditions which seem hopeless of improvement, were it not for the pioneers of a new righteousness, who believe that Alexander Hamilton was correct. All the people cannot be trusted with their own government, and it must be placed in the hands of the type of men who organized it. Our democracy is unnatural. Nothing like our moral conditions exist in the Aryan Northwestern corner of Europe, though it does exist in non-Aryan Portugal and Turkey. Reform is impossible until we return to nature and place the franchise in the hands of men of intelligence, so that the best brains will be occupied in workings for the organism first and the units secondarily instead of the reverse as at present.

In the meantime, the natural course of events gives us a dreadful number of degenerates to care for, and we must give heed to the matter. The Commissioner General of Immigration, *F. P. Sargent*, in his report, July, 1904, said that of the immigrants who arrived in the previous five years, nearly 45,000 were already in confinement—3,995 for grave crimes, 5,686 for minor offenses, 20,279 insane and 14,604 paupers. He commented on this non-Aryan immigration, and called it a grave danger, but he merely referred to their ignorance, not to their inherent lack of brain. Critics of Mr. *Sargent* affirm that we can digest this horde, that is, we can convert them into good, blond, brainy Aryans—the type fit to manage such a government as we possess.

## EDUCATION DOES NOT ENLARGE THE BRAIN

The greatest impediments to good government in the United States are the school teachers, who assert that education is all that is needed to make little brains give out thoughts as good as the big ones. This false idea is at the basis of all the objections to restriction of the franchise. To every such suggestion they cry out—educate them and they will think well enough to vote! It is impossible, of course, but the idea is a fixed one. It is strange that the very instrument—education—which was intended to make the government better, in the days when voters were more nearly equal in intelligence, is now actually making it worse, by attempting to qualify as voters those who have not the necessary brains.

Illiteracy is not the cause of lack of intelligence, as generally taught, but is the result. In Europe and Africa it varies inversely as the average brain development. Native Americans of high grade may be illiterate, as in the eighteenth century, from lack of opportunity.*

## FITNESS OF CONSTITUTIONS

*Mr. James Bryce* says: "The English Constitution, which we admire as a masterpiece of delicate equipoises and complicated mechanism, would anywhere but in England be full of difficulties and dangers."† Similarly, the American Constitution is a masterpiece of delicate equipoises and complicated mechanism suitable for the original nation, but is becoming full of difficulties

* ILLITERACY

| Nation. | Per Cent. | Nation | Per Cent. |
|---|---|---|---|
| German Empire | .11 | Ireland | 17.00 |
| Sweden and Norway | .11 | Austria | 23.80 |
| Switzerland | .30 | Hungary | 28.10 |
| Denmark | .54 | Greece | 30.00 |
| Finland | 1.60 | Italy | 38.30 |
| Scotland | 3.57 | Russia | 61.70 |
| Netherlands | 4.00 | Spain | 68.10 |
| France | 4.90 | Portugal | 79.00 |
| England | 5.80 | Servia | 86.00 |
| Belgium | 12.80 | Roumania | 89.00 |

† "The American Commonwealth," p. 290.

and dangers now that hordes, for whom it was not intended, have changed the character of the nation. The same result would occur to the British Constitution if the hordes invaded England.*

The late *Mayo Smith* said that those "who desire that the United States should discharge the functions of a world-asylum, forget that asylums are not governed by their inmates." Why not acknowledge at once that our altruistic desire to help all lower races, even if they starve us, is suicidal, unscientific, a blunder. Why not acknowledge that sovereignty belongs only to brains big enough to use it? Why not take steps to keep what has been purchased by rivers of blood ever since the Magna Charta? Why not take counsel of past blunders and prevent that national disease which will be later so painful and bloody to cure? After spending oceans of blood to wrest our sovereignty from kingly tyrants, we foolishly give it away to negroes, Slavs, and Italian peasants—none of whom ever owned it, do not want it, are damaged by it, and few of whom are able to use it. Our democracy at present is not Aryan at all, and is therefore unnatural. The asylum will be managed from Europe, if we do not wake up soon.

* "In his thoughtful and temperate address at Oxford on the 'Relations of the Advanced and Backward Races of Mankind,' Mr. Bryce whose judgments have been carefully formed from extended investigations of this difficult problem, pointed out the probability of the repetition in the Philippines and in South Africa of conditions that now exist in the Southern States of America, and stated the policy, which, in his opinion, must be adopted. According to Mr. Bryce, the prejudices of the white, especially of the Anglo-Saxon race, against fusion of the races by intermarriage, is so strong that it cannot, and probably ought not to be overcome. Political rights should, however, be based on a restricted suffrage. A qualification based on property and education, which should permit the upper section of the backward race to enjoy the suffrage, while excluding some of the poorest and meanest of the whites, would be better than a purely race qualification, which must wound and alienate the whole of the colored race by putting them without the pale of civic functions and duties."

# CHAPTER XXVI

## MODERN EVOLUTION OF DEMOCRACIES

CENTRIPETAL AND CENTRIFUGAL FORCES—CENTRALIZING AND DEMOCRATIC PARTIES—FOREIGN POLITICAL PARTIES—IMMIGRANTS ARE NORMALLY DEMOCRATS—ROMAN LAW OF ARISTOCRACIES—OPPOSING INTERESTS OF DEMOCRATS—SAVAGE LIFE AND DESPOTISM—INDUSTRIAL DEMOCRACY—PAST AND FUTURE POLITICS.

### CENTRIPETAL AND CENTRIFUGAL FORCES

When civilizations were primitive and populations sparse organization into communities was on simple lines, but with the increased production of food and the resulting density of population, it has become extremely complex. We must, then, take up the natural laws causing the evolution of modern society, as a step toward explaining our relations to other nations and to the peoples of the tropics, and the interrelations among ourselves.

In the evolution of the multicellular organism there are two forces at work: one is centripetal drawing the organism together, by taking something away from each cell to secure union, and the other is centrifugal, resisting such deprivation of an individual's powers, and is based on the cell's ability to struggle for existence at the expense of all competitors—an ability inherited from an immensely long line of successful ancestors. The former is a centralizing force building up an organization, the latter a decentralizing one preserving the health and vigor of the units—and both are necessary.

Every organization advances along a line of least resistance resulting from the combination of these two forces. The first tends to subordinate the individual and render him a dependent specialist; the other tends to exalt the individual and continue his personal independence. Even the organization of the modern baseball team has taken these lines. Formerly, players

rotated in position, and there was little "team work." Such a game disappeared before the modern one in which "team work" has been built up by specialist players, who are worthless out of their respective positions, and who play into each other's hands. As soon as the American colonies attained their independence they found themselves to be a "weak team," with no organization, and the confederation failed. The people created a new organism which was given powers taken from the units. Immediately the citizens clustered into two groups, as they felt themselves guided by one or the other of the two forces. One set, the nationalists, exerted themselves to build up the organization; the other, the republicans, tried to keep the units strong. Hence, the two parties existed at once because we might say they preexisted, for they represent eternal natural laws. Political parties exist to-day in their original positions, but the nationalists call themselves republicans, and the former republicans have more appropriately called themselves democrats. Writers have failed to realize that it is biological law which causes political parties to exist. It deserves investigation from this standpoint, for the attitude of the two main parties in the United States toward the topics here discussed is identically the same as the attitude of political parties in other civilized nations toward similar questions in their own country.

### CENTRALIZING AND DEMOCRATIC PARTIES

Biology gives us the reason for the wonderful organizing ability of the republican party. Notwithstanding the fact that the democratic party is based upon the greatest of human rights—liberty, individual liberty, home rule—resistance to higher control—it has dismally failed in the government of the nation, and will always fail because it neglects the great natural law of the commensal duty of the units to the whole. It is not possible here to explain in full the great principles of the two parties; the reader can find a detailed description by *Austin Bierbower*, in *Bryce's* "American Commonwealth," in which they are set forth in a series of antithetic epigrams. Shortly, it is there stated that the foundation of the democratic doctrine is

liberty so complete as to leave every man unhampered, free even to enslave others. It recognizes natural inequalities of all men and leaves them to their fate, free to get what liberty they can. It is individualism. The republican foundation is equality so complete as to fetter every one; it binds all so as to secure some liberty to each. It is collectivism, or better, commensalism. The democrats are true aristocrats; the republicans are true democrats. The democratic principle of unbridled liberty is old, so old, indeed, as to revert to a savage time when all men were free and independent, but unable to exist in the dense masses of organized societies. Every man is now dependent upon others and serves the others in a commensal capacity, all organized for mutual benefit. It is this principle of evolution of highly complex organisms on which the republican party is based. It is the strength of union, but unbridled liberty is the weakness of disruption. The greater a nation becomes, the more it must be welded together to survive, or it will be a helpless horde. The democratic party trains the players; the republican teaches the nine to play ball. The true democrat plays for himself; the true republican plays for the team. The one represents egoism, the other altruism, and each, though necessary, would be harmful unless checked by the other.

Having commensalism for its basis—the greatest and highest law of nature—the policies and acts of the Republicans and their predecessors are all centralizing, nationalizing, cohering, and have made us a great nation, able to do good "team work." Having individualism for a basis, the most fundamental law of nature, the policies of the democrats and their predecessors have been decentralizing (for home rule), denationalizing (States' rights), disrupting (secession), and yet have so unfettered our individualism as to render us the greatest nation of independent, original and inventive people on earth, accomplishing individual wonders no other people dream of. Formerly, we did not have occasion to act much as a nation on account of our splendid isolation, and we have always neglected our coherence. To continue State sovereignty and perfect individual liberty is a biological blunder, now that modern transportation has destroyed our isolation, for the coherent

nations of the earth will destroy us unless we cohere, centralize, nationalize and do good "team work." We will preserve our democratic liberties by adopting republican national policies of commensalism. The gradual evolution of our present centralization from the necessary decentralization and individualism of the years 1700 to 1750 are also explained in *Bryce's* "American Commonwealth."

## FOREIGN POLITICAL PARTIES

In England the two main political parties, conservatives with tories, and liberals with radicals, are based on the same biological laws. But there is this difference—England's present parties arose in a firmly organized land, repeatedly conquered by invaders, where there was a minimum of democratic liberty. Our parties arose in an unorganized land where there was a maximum of democratic liberty. Hence, our republican parties have been the innovators and radicals while the democrats have been the conservatives, checking the advances made by the organizing party; but in England the party corresponding to our democrats, the radicals or liberals, have been the innovators seeking more individual liberty, while the tories and conservatives, corresponding in their centralizing organizing tendency to our republicans, have been conservative, checking the advances made by the disorganizing party. While the English radicals have been working toward our original position of unbridled personal liberty at the expense of the powers of government upheld by the conservatives, our republicans have been working toward England's original position of great centralized authority at the expense of the liberty of the individual. In the course of time the English conservatives almost invariably cease opposition to a new liberal proposition and adopt it as a fixed national policy, and in course of time our democrats almost invariably cease opposition to a new republican policy and adopt it as a fixed national one. Each nation will in time reach the same middle point. Hence, we see a remarkable series of parallels in the two countries.

It is perfectly natural that our democrats and their liberals

should be anti-expansionists because expansion is increasing the efficiency of the central power or organism and is undemocratic. Hence, the violent denunciation of their occupation of Egypt and our occupation of the Philippines came from the same source, liberal and democrat. Yet the liberal Gladstone, when in office, continued the Egyptian policy he had denounced when out of office. His denunciation was theoretically correct from a party standpoint, but practically wrong from a national one. Likewise, our democrats who violently denounce our Philippine venture, are technically correct, but if put into national control will no more dare to evacuate the Philippines than England dares to evacuate Egypt.

Liberals and democrats are opposed to standing armies and navies, except such as are necessary for defense, because they are liable to jeopardize personal liberty. Conservatives and republicans wish them increased to a point where they can secure personal liberty to all. Nevertheless, our democrats invariably consent to increases in military strength to protect the nation, and only recently the English radicals in power were compelled by the Balkan disturbance to increase both army and navy after frantically denouncing military expenses for years.

Liberals and democrats have always been for home rule, State rights, and colonial independence—republicans and conservatives for the opposite. The liberal program of colonial independence will always be checked by the conservative program of firm union between all parts of the British Empire through the surrender of parts of their independence. It was quite natural that the centralism of Great Britain should have ended slavery peacefully, but that in democratic America a bloody war was necessary. Since our democrats theoretically believed in personal freedom so great as to give us liberty to enslave others, they naturally believed that any race too low to resist slavery is unfit for citizenship. "Wherever there may exist a people incapable of being governed under American laws in consonance with the American Constitution, that people ought not to be a part of the American domain." Every place on earth can be governed by Aryan Americans under American laws in consonance with the American Constitution, because we

have always been doing that very thing. All men under the American flag (whether voters or not), are now and will be forever "entitled to the protection of the institutions whose emblem the flag is."

Free trade is naturally the shibboleth of democrats here and in England. They demand liberty to do as they please. Tariff protection is a centralizing policy as it gives more aid to more people, and strengthens the nation at the expense of some of its units. Sometimes one policy is best and sometimes the other—matters known to every student of English history.

Naturally, the organizing tendency of the republicans should make of its national convention a well ordered, well organized machine, while that of the democrats, with a rare recent exception, is generally an organized unwieldy mass of units each resentful of any control. They are the epitome of the two biological laws of their existence.

It was natural that Jackson should inaugurate the "turn-the-rascals-out" policy of rotation in office, because that is democratic individualism like the old form of baseball, but a civil service of irremovable good specialists is necessarily an organizing republican plan, and like the new baseball, it is the opposite of rotation in office, and has come to stay.

The Gladstonian policy is that "any community which is in any way entitled to be called a nationality is entitled to work out its own salvation or damnation," and in America, "the democracy believes that the white man will have trouble enough to maintain in its full integrity the white man's civilization in all parts of his own country, and it is neither his duty nor his right to superimpose his civilization by force upon the brown man in the brown man's country." This essay shows that unless we do impose our civilization on the tropics, the brown men will suffer, and we will also.

It is quite natural for parties to shift sides on a question when it is a State or national matter. Democrats naturally object to any measure which increases a State's power at the expense of the people, yet they are champions of the State if there is a similar proposition to weaken it in favor of the central government.

A democrat also deserts his party temporarily when he realizes

that a centralizing policy to be voted upon will reflexly help him or when a democratic policy will be disruptive. Hence, the phenomenon of republican successes in national elections at the very time there are democratic successes in local affairs.

The father of our democratic party and the greatest democrat America has produced, Thomas Jefferson, did not dare to introduce his principles into the centralizing government, for he knew they would disintegrate the nation. He has, therefore, been unjustly accused of inconsistency, dissimulation and even worse, but he was a wise President, looking after the interests of the mass. Yet before then, when in the opposition, he was defending the rights and powers of the unit. He was a free trader, but did not attack the tariff; he believed in paper currency, but did not introduce it, or attack the national banks; he objected to government purchase of land, yet he bought Louisiana and tried to buy Florida; he objected to governmental management of any enterprises, but as President he spoke of using surplus revenues on roads, canals and education.

The philosophy of William Jennings Bryan is ideally democratic, constantly striving for the individual, exalting his importance and advocating the reference of great questions to the people to decide. Curiously enough in pandering to the desires of the lower democratic elements, he constantly drifts into advocacy of the paternalism they always demand. It was generally said that his political philosophy did not differ much from the republican, but as a matter of fact they were diametrical opposites.

The war between the North and South was typical of the conflict of the two forces of organization. Many a democrat was compelled to fight for the union, for he saw—like Gladstone—that decentralization is fatal to national safety and reflexly fatal to the units themselves. The States, as independent units, would fall into the possession of Europe, one after another. Consequently, democratic units must be forced to combine, must be coerced for their own benefit—their principles are suicidal if unchecked. *John C. Reed** is the first one to recognize the natural laws at the basis of our civil strife.

* "The Brother's War."

### IMMIGRANTS ARE NORMALLY DEMOCRATS

There is now a clear explanation of the reason why there is such a strong democratic sentiment among the hordes of immigrants who have flooded this land since 1850. The two forces, centripetal and centrifugal, have been at work in all political organizations in Europe. We have explained that ever since prehistory the race which has been organizing governments, evolving civilizations and increasing the saturation point and the numbers of the peasantry, has been of the blond Aryan type, and that the mass of the people have had nothing to do with the government, being solely occupied with personal survival. Conquest or change of government from monarchy to republic has been meaningless to them. To a large degree survival compelled them to be opposed to the ruling class. Without this spirit the nations would have failed, for the ruling classes would have aggrandized more than their share of the commonwealth. It was a healthy, natural, necessary, democratic spirit, looking after the health and safety of the units. As a matter of inheritance, then, the survivors among the peasantry are democratic. The European peasant knows that central governments have taken from him and his ancestors a great deal of personal liberty, but he does not know that this was necessary to organization and that without it he would not have been born. It is a pity that they cannot understand the matter, for then they would know that in America, future organization will necessarily take more and more of our personal liberty.

In Germany there is now a great agitation on this point. The democratic spirit actuates the majority of the voters so that their policies in the Reichstag are believed to be gradually disintegrating the organism—the Empire. The saturation point will be lowered, and starvation or emigration be necessary instead of that supersaturation they now enjoy with imported foods, secured by a strong army, navy and merchant marine. Hence, there is general alarm, and the present discussion is around the proposition that the safety of the peasants demands that they be excluded from the franchise which they are now using for their own destruction.

The strong spirit of local independence among the petty German states, which refuse to coalesce into a firmly welded mass, is due to another cause—the spirit of Aryan democracy which has already welded each of them into a complete organism. Nevertheless, it is part of this strong decentralizing force which is worrying the makers of a Greater Germany.

Tolstoy saw these disruptive democratic forces in the first Duma and was, therefore, opposed to it, as inimical to the Russian nation. He also saw the same tendencies of the same people who are flocking to America, and he predicts the downfall or disruption of this nation. Later Dumas excluded them—so must we.

Democracy's struggle for more than is good for it is shown by the present fight against the conservative and centralizing powers of the House of Lords, a body composed of the forces which have held the British Empire together for a thousand years—at least what might be called an Empire, that which was welded by William the Conqueror. The liberal or democratic party is in power, and naturally wants to remove restrictions to the liberty of the units. It will be a sad day for English democracy when it removes the balance wheel which prevents it flying to pieces. They need governors as much as an engine, and the House of Lords, though in sad need of reform, is a survival of what has proved best in the past. The same types in America show similar tendencies to elect senators directly, to make that body more responsive to public opinion and less of a balance wheel.

Immigrants should be republicans, for the natural policy of that party is to give equal though restricted liberty to all and forever prevent that enslavement of lower types which always results from a democratic competition of higher and lower races. Under democratic principles all these lower Turanians and Mediterraneans are sure to sink into a lower layer, as they have in all ancient Aryan democracies, and as the negroes have sunk in our South.

As a rule, then, excepting in such localities as the South, where the negro element has forced a consolidation of white men, we find that when Europeans divide on political questions the blond

Aryan, except recent arrivals, tends more to the republican party, while the brunet Semites (or Mediterranean type), and the brunet Turanian elements (Alpine type), flock to the democratic party. It is like the other well-known fact that blonds tend to Protestantism and brunets to Catholicism (Greek or Roman). Hence, it is a strange outcome of anthropology that we should thus find, that while there are believers of every religious sect in each political party in the United States, there is a marked tendency of Protestants to side with republicans and Catholics with democrats. This is the opposite of the conditions in Europe, where the greatest democracy exists among the Protestant governments, while the least is found among the Catholic, and it does seem as though Protestantism is to be the dominant religion of the world even if Catholicism should become numerically dominant in America, as now seems certain.

### ROMAN LAW OF ARISTOCRACIES

The difference between an Aryan democratic aristocracy and Aryan democracy is shown quite clearly in their laws. The legist, *Fortescue*, contrasted "the Roman law, the inheritance of the Latin peoples, with the English law: the one the work of absolute sovereigns, and wholly inclined to sacrifice the individual; the other the work of the will of the community, and ever ready to protect the individual." Likewise, the modern centralizing political parties have a tendency to reënact the Roman law, while the democratic parties reënact old Aryan laws of Northern Europe. Where the democratic force has full sway, as in America, legal machinery throws every possible guard around the accused, so as to make it impossible to convict the innocent, but the ultimate result is to make it impossible to convict the guilty. Scarcely one per cent. of our murderers are punished. Where the undemocratic centralizing force has checked this tendency, as in Great Britain, the legal machinery is designed to guard the social organism, even if occasionally an innocent man is convicted. Hence, we find that the majority of British murderers are punished, and life is really safer than where the units are so carefully guarded. Unbridled democracy injures itself.

*Gustave le Bon* points out the natural tendency, where there is racial aristocracy, to look to the government to initiate everything and to assume a paternal attitude, as in Southern and Central Europe. But in England and America, where there is a greater democratic spirit, we find an enormous development of individual enterprise and coördination independent of government control. The stupid peasant cannot think of proper laws but looks to the thinking element. He regards the Czar as the little father, and he is quickly assuming the same attitude here in America. He wants republican protection and yet votes the democratic ticket, giving absolute liberty to his oppressors. The negro votes for republican principles by which he received some liberty, for otherwise the unbridled liberty of Aryan democrats would give him none.

### OPPOSING INTERESTS OF DEMOCRATS

Another phenomenon in all democracies is also explained by these biological laws. The democratic party of every nation, in advocating the prosperity of the units, must find itself in a dilemma every now and then, because different sets of units have opposing interests. For instance, unhampered free trade is a necessary democratic principle both here and in England, yet individual democrats, though desiring free trade in many things, desire protection to their own special interests. Hence, there is a conflict, and the history of democratic parties shows that they are constantly being urged to adopt conflicting policies. This leads to hopeless disruption which has happened time and time again, both to the English liberals and American democrats. For some years now both these parties have been divided into irreconcilable factions, each looking to its own individual interests and not to the national welfare.

Though the policies of both the English conservative and American republican parties have been repeatedly rejected by the people at the elections, yet neither of them has ever been so hopelessly disrupted as were the democratic and liberal parties on the policy of States' rights and home rule respectively. Democrats and liberals were compelled to leave their parties, because the policies advocated, though of advantage to a few

units, would have damaged the organism and destroyed many other units and injured all of them in time. "Free silver" was of benefit to a few, and its advocates, by forcing it on the democratic party merely disrupted that party again. A prominent republican politician once said in a joking humor that he never knew two democrats who agreed on any subject. He little knew that he was expressing a great natural law. A solidly united democratic party is, therefore, unnatural. It only succeeds in national elections when the units feel that the centralizing republican policies have gone too far and are injuring all the units too much.

The numerous small political parties in the parliaments of the continent of Europe are, as a rule, mere factions of the greater democratic party. They cannot unite any more than the factions of our democratic party or the British liberals, and therein is the reason why a minority of the nation, the centralizing party, is able to control matters in every country in the world.

### SAVAGE LIFE AND DESPOTISM

The two main political parties can exist only where the units and the organization are both powerful enough. Hence, there are no politics in savage life where the units are so democratic as to have almost perfect personal freedom. There is but little organization, and no such thing as our republican or the British conservative party. On the opposite side, there can be no true politics in such countries as Russia, where the vast majority of the units are too stupid to understand governmental matters, but merely exist in dense masses by reason of a civilization thrust upon them by a higher Aryan race. It is all organization and centralization by the ruling Aryan type, but no such thing as democratic personal liberty, as there are but few with brain enough to fight for it, as the English have done in the last eight or ten centuries. All the Russian brains, one might say, belong to the aristocratic or ruling type. It is an example of what happens if the centralizing forces of our republican or the English conservative party are unchecked by a healthy democratic party fighting for the health of the unit.

There have recently been three remarkable expressions of the real Russian conditions by three prominent Americans who have investigated the matters at first hand. *Prof. Geo. F. Wright,* of Oberlin College,* finds that the peasant has practical home rule in local affairs, and has much more liberty than is good for him—more liberty than brains—and is directly responsible for the low state of civilization, and if it were not for the ruling classes there would be anarchy. *Melville E. Stone,*† General Manager of the Associated Press, asserts essentially the same thing, showing that nine-tenths of the people do not know what government by the people is. Although they do manage their local affairs they care nothing for the national. Most of them did not know that a war with Japan had begun, nor any of its causes. *Andrew K. White,* our former minister to Russia, has mentioned similar views, and taken all in all, they are a clear expression of the way democratic Aryans look upon lower races. There is a growing conviction that these people after migration to America, still continue in an utmost indifference to the needs of the nation, and are wholly unfit for the franchise.

Current literature is full of the official corruption in Russia, the persecution of the people (Jews, Poles, Finns, etc.), and the generally dreadful state of the peasantry, and all this exists in spite of the fact that the ruling class who have brought about this state of affairs are a cultured, brainy, generous, lovable and agreeable body of men. Russian war atrocities, by the way, are generally, if not always, the work of the soldier, who, as a rule, is an Asiatic belonging to the ruled and more brainless type. Savage life and despotism are the two extremes, then, brought about by the unchecked action of the centrifugal and centripetal forces, respectively.

The revolution in Russia is not for the purpose of sharing the sovereignty with the brainless types, but is a demand of the body of intelligent people for a share in what was once theirs but which had been given to the Czar and woefully misused by some of his parasites. The nation is now too big for a system found necessary some centuries ago, but a pure democracy is not dreamed of.

* *New York Evening Post*, January 13, 1906.
† *New York Tribune*, May 14, 1905.

### INDUSTRIAL DEMOCRACY

The Aryan, being a democrat by natural selection, demands a share in the management of every enterprise in which he engages —a vote. He introduces a spirit of democracy into all modern industrial organizations which at present are essentially monarchical because each one, as a rule, is an organization built up by one man who employs the labor. Hence, we find in modern life a fight for the recognition of the unit workman who demands a democratic share in the management. His fight differs in no respect in principle from the fight which the men of Great Britain have made for a share in the management of the Government. Factory owners and employers of labor have naturally assumed an attitude toward their employees, precisely the same as that of the medieval king to his subjects. It is not rash to prophesy that the outcome of the present industrial fight for a democratic status, will be as successful as the political fights have been. We may safely predict that in the future, the capitalist or employer must consult his laborers and their interests exactly as the king consults the opinions and welfare of his subjects. It cannot fail to force itself into our great industries, for it is natural law—the force which looks after the interest of the unit—the centrifugal or democratic force without which the organism will ruin itself because it does not preserve the efficiency of its component units —the workingmen.

It may not be the present labor unions which will bring about this recognition of the will of the workingman. They occupy so extreme a position that if their policy were carried out they would strengthen the units too greatly and at such an expense of the organism as to destroy it. The constant cry to-day from manufacturers is, that if the labor unions could enforce all their demands, factories would close, as they would be unprofitable. In Australia and New Zealand society is being dreadfully weakened by this same exaggerated attention to the welfare of the unit at the expense of the organism. Many a writer has called attention to the bad results already in evidence—factories have been closed by the dozens and capitalists refuse to invest where

they are liable to lose all. It is an illustration of unbridled democracy—the units are destroying themselves, population is diminishing and wealth will consequently decrease. Both in America and England factories have also been closed by the excessive demands of the workers, who killed the goose laying the golden egg. In each country we see the tendency of owners in self protection to take employees into a limited partnership—share owners—and thus all industrial works are becoming true organisms like a nation.

## PAST AND FUTURE POLITICS

There is a library of literature on this one topic of society and the individual, whether society exists for the individual or the individual for society, and the general tendency is to take an extreme view, though both are correct. Herbert Spencer was the champion of the individual, but the general trend is now the opposite, and thinkers are beginning to express fear of the dangers of "unbridled democracy." As a matter of fact the fear existed in our constitutional convention, and *Prof. J. Allen Smith*, in his new work, "The Spirit of American Government," shows how this undemocratic force has created a government of checks and counterchecks, in which it is practically impossible for the majority to make ill-considered changes, or oppress the minority. The increasing democratic spirit which he favors, and which he shows is thwarted by the Government, is, in reality, the danger recognized by visitors from countries where it does not exist. Many Americans actually believe that they have the same democratic right to murder aggressors as existed among our neolithic ancestors—a right which has long since been taken away from us by the social organism which alone has the right to say which of its component units shall be destroyed.

It is now generally recognized that the disruptive force which caused the success of the American Revolution, was this same "unbridled democracy." The colonists demanded more rights than Englishmen, the great majority of whom did not possess the franchise, and were taxed without representation. In a sense the Revolution was the conflict of these two antagonistic

forces of organization, and as one writer aptly suggests, it was the irresistible meeting the immovable. *Prof. Sydney George Fisher*, in his recent work on "The Struggle for Independence," argues that the mother country did deal with the colonists most maternally, but was really in the position of the modern factory owner who would be ruined if he granted all that the laborers demanded, and there was no other cause except to "shut down." *Professor Fisher* shows that the same conflict is still going on in the British Empire, and he might have added that it will go on everywhere forever. It was amazing foresight, then, which led our Constitution makers to guard against the democratic force which created the nation. All this does not alter the fact already enlarged upon, that George III and his short-sighted ministers did, in reality, attempt to strengthen the home organism at too great an expense of the colonial units who were in a position needing more liberty and rights than the people at home.

It is certain that in our future "United nations of the world" there will be two political parties exactly like our republican and democratic, or like the conservative and liberals. One will be an international party struggling for the organization of the great new organism, increasing its powers at the expense of the units or nations. The national party will struggle to preserve the health and vitality of the unit nations to keep the international from taking too much. Indeed, this cleavage existed in the Hague Convention.

Again we see how far-reaching is the condition of overpopulation due to a normal struggle for existence in modern civilization. It seems destined to cause the organization of all mankind into one huge organism, for in no other way than by such subordination of self can we exist in those dense masses bound to exist in the future as the result of our increasing ability to produce more food. Nevertheless, the constant overpopulation will keep up the struggle of individual against individual, and the two forces of centralization and democracy will exist forever.

# CHAPTER XXVII

## CHRISTIANITY AND DEMOCRACY

EGOISM AND ALTRUISM—ORIGIN OF CHRISTIANITY—IDEAL ALTRUISM—CHURCH POLITICS.

### EGOISM AND ALTRUISM

In a prior chapter we have shown that Christianity is indebted to Aryans for many of its ideas. It is now in order to show that it is an aid in the organization of democracies, and that without it, the higher nations would probably disintegrate somewhat. Incidentally, it will be proved to be a result of organization of dense masses of people—in other words, a result of the struggle for existence in overpopulated masses.

We have seen that democratic parties represent the egoistic and decentralizing element of organization, while republican parties give force to the altruistic side which compels units to sacrifice themselves for the good of the union. Those units which help themselves while at the same time they are helping others, are the only ones fit for permanent survival, although pure selfishness at times is necessary and at others the altruism which leads to self-destruction. China and Japan are the illustrations constantly used to show the results of excessive egoism of the units and the altruism which leads one to die for the country when necessary.

Now, in Christianity there is a wonderful mixture of the two forces of egoism and altruism, which are of transcendent importance to survival as an organism, and it is necessary for advanced nations to be Christian at heart. Its principles are based on a democratic personal selfishness so extreme as to destroy any organization, and yet it advocates a republican altruism so sublime that it would destroy every unit and kill the organism piecemeal.

One of the most curious results of modern investigation is the discovery that Christianity arose in a great pathway from Europe to Asia through which men had poured for untold thousands of years. Wave after wave came down, each superior to the last by reason of greater brain capacity, and, therefore, able to subjugate or drive out prior arrivals who had survived the climate. Excavations in Palestine, like everywhere else in this zone, show one civilization after another, each built on the ruins of its predecessor. Consequently, population was never homogenous as in Northern Europe, but existed in layers according to race. There were always lower or oppressed layers, slaves and serfs. The Semites had been the upper oppressing layer for a long time after their arrival, and were finally submerged by Aryan waves when the Semite became the oppressed. It is no wonder, then, that Judaism should be based on those things characteristic of the meek and lowly and of the oppressed, a philosophy so completely fitted for the lower layers of population.

### ORIGIN OF CHRISTIANITY

In a curious book called "The Religion of the Early Christians," by *F. J. Gould*,* there is a complete description of the method of the evolution of our present form of Christianity, which is probably much different from what Christ taught. In the first place, Jesus was born in the lower layers of the lower Semitic class. His teachings, as far as we know them, were essentially those of protest against the hardness and brutality of existing conditions, yet recognizing the impossibility of remedying them. Hence, He or His followers exalted into the highest virtues all those democratic characteristics found in the downtrodden. They held out the hope of a relief in the next world, to all who could not get it in this. The new ideas were rejected by the upper classes in His own race, the scribes and Pharisees, the priests and rich men, the rulers and the Romans, who believed in different virtues and thought He was subverting their law, order and morality; and so He was, as a matter of fact, and

* Watts & Co., London.

was executed for it. The New Testament does not give an adequate reason for the crucifixion, and pretends to make it an illegal matter.

Paul's teachings were acceptable to the lower strata of society who were converted by the thousands to this idea of their personal worth, and the fact that Christ died for them. After Paul's death, they constantly talked of Christ and His philosophy, met in secret, handed down His alleged sayings as oral traditions, adding to them, here a little, there a little, and finally on the principle that the wish is father to the thought, building up a mass of their own sayings which were exactly what appealed to them most powerfully. It is shown that they built up an ideal Christ, who was probably vastly different from the real one, for the process of evolution went on for two generations before the ideal became fixed, and in that time the lower, oppressed strata, without written records, had plenty of time to eliminate all the distasteful things and amplify the agreeable parts of what they believed were His teachings. The result is, that the new religion is a mass of matters acceptable to the meek and lowly, the peasant as compared with the aristocrat, the lower race as compared with the higher, the democrats as compared with the nobles.

It is vastly different from the original Pauline Christianity. Open the Gospels at any place and wherever there is any philosophical statement, it will be found just such as would arise among the lower classes in any society. The Sermon on the Mount has nothing else. It was impossible for the upper classes to be Christians. Worthless beggars are to go to Heaven at once, but a camel can go through the eye of a needle easier than a rich man can enter the heaven of these early Christians. They tell all rich men to go and sell all they have, give to the poor and "become one of us." "To be a Christian you must get down to our level." It is no use to quote other examples, for we would have to quote nearly the whole of the four Gospels. No one knows exactly, by the way, what Christ's original teachings were, except that they subverted the existing social order. The twelve apostles differed widely from Paul, and it was Paul who originated a new religion for the Gentiles, as recorded in his

authentic epistles, and this Pauline Christianity was modified by the original Christians to what we find in the Gospels.

No wonder, then, that Christianity spread like wildfire as soon as it had assumed this early form. No wonder it took possession of all those subjugated races in the Roman Empire. The meek and lowly were the first converts, and they finally forced the higher or ruling races and classes to accept it, and they at once made it something different still. It must be remembered that though the Germanic races were homogenous, they were not perfectly so, and that there were strata of peoples. The upper strata were very, very thin, and the common folk constituted the mass. Partly for this reason they were easily Christianized *en masse*, and they made of Christianity a vastly different thing from what was made of it by Semites in Palestine, or the Semites of the Roman Empire.

### IDEAL ALTRUISM

Now, there is another reason why Christianity appeals so much to modern civilized societies, and that is the intense altruism of it. Up to the time of Christ, all religions, except those originated in Persia and India, reflected the brutal struggle for existence. The Old Testament is a mass of this selfishness. Brutality is the rule. There is positively no compunction shown in their wars. It was a virtue to kill the Canaanites and drive out all their enemies. Murder was a fine art. It was a philosophy built up by those who succeeded by the utmost selfishness of those primitive times. What a tremendous change came with a civilization which raised the saturation point and permitted masses to live together as an organization! Selfishness could no longer be the sole virtue, for it would destroy the organism, and they would all perish. They survive simply because all members had to do something for the whole, some sacrifice, some duty, some loss of liberty, some specialization. Races which could not do this had to remain unorganized; that is, savage, or had to perish when pitted against the organized ones, composed of self-sacrificing, specialized units. Hence, races and nations survive now by reason of individual altruism.

The players in the game made "sacrifice hits." Self-sacrifice became a civic virtue.

The history of Japan is a glorious account of the evolution of an altruism which leads a man to seek death that the nation may live. It is now and has been for centuries, the highest ambition of a Japanese to die for his country. No wonder the nation is so strong, compact and unconquerable. It is the very antithesis of the Jewish nation, where individual selfishness has prevented solidification. It is a fluid with independent particles, but Japan is a solid with dependent particles. Indeed. a Jewish nation is a misnomer, for it is a religion of divers peoples with no national traits in common, kept alive by its selfish philosophy, but thereby incapable of organization. It is a vestige from a primitive age. It is to be noted that the Japanese inject a strong religious feeling into their altruism. The Mikado is divine to their minds, and they fight for him with the same desperation we fight for Christ or Mohammedans for Allah.

It was inevitable, then, that this newly evolved virtue should soon enter the religion. Now, it so happens that the lower strata seem to do most of the self-sacrificing, and it was from them that this new philosophy should arise. The Christ of the New Testament merely voices what they all thought and did. Mutual aid—commensalism—the greatest law of biology, therefore, became the basis of Gospel teaching. No wonder it appeals to us as so beautiful. We are the descendants of people who survived because when the time came, some of them knew how to die in defense of their families, home, and clans. It is ground into our very fiber to admire self-sacrifice, we cannot help it. We erect monuments to men conspicuous in this way. Our most beautiful literature is based on such examples. "Lost his life in saving others" is the favorite headline for newspapers —the volunteer fireman injured while rescuing a woman was locally our greatest popular hero. Is it any wonder, then, that the lower strata when evolving Christianity, should idealize the normal, natural altruism to such a refined degree that it is now abnormal and unnatural? It is impossible, but it is exquisitely beautiful. No man can sell all he has and give to the poor, because his wife and children will starve to death.

Democracies are proverbially ungrateful for services rendered, for it is the selfish public opinion of individualism, but strong centralized governments are generally lavish in rewarding benefactors. Nevertheless society as an organism always shows its gratitude to benefactors, and even venerates those who, like Washington, Hamilton and Jefferson, sacrifice their private interests for the public good. On the other hand, there is intense hatred of the man who has done nothing but exploit the organism for his own selfish ends, and this is, in part at least, the basis for the hatred of the Jew already explained. But it really amounts to more than hatred, for it is a realization that some of the units are robbing the organism and that all must suffer. The hatred of the mere rich is thus not envy but a natural normal phenomenon, differing in no respect from that of the early Christians, who practically stated that the rich man could not enter their Heaven. It is to be noted that philanthropy, or the effort to benefit a few, does not create nearly so favorable comment as public duties benefiting all, and the rich philanthropist may still be an object of hatred because of the feeling that he is merely dispensing alms taken from others. This sounds like Socialism running riot, but it is merely nature expressing itself in public opinion or the mass mind, in and out of the Church.

A modified Christianity is normal and natural for the highest, brainiest and most completely organized societies. This is the reason it had to travel North in search of brain; why it is the property of the brainiest peoples; why it cannot be wholly understood by less brainy savages. This is also why it is changed by every race to coincide with the ethics of that race, so intensely selfish in the lower, and more and more altruistic as we travel north in Europe, until it reaches that high point we are accustomed to call Christian living. The lower orders are selfishly thinking of what they will receive from Christianity; the higher orders are altruistically thinking of what it will exact of them. Nevertheless, it is an ideal, too pure, too refined as yet for practice, though all Teutonic races strive toward that ideal. It is to be kept before us like a guiding star, and though unattainable, it keeps us in the narrow way and out of the broad

road of savage selfishness which leads to destruction. It helps to organize Aryan democracies, all of which are naturally Christian. These speculations also emphasize what was said of the Aryan influence in originating Christianity—the ideas used by the Semites were no doubt largely Aryan.

It is thus a strange state of affairs that it is biologically impossible to have a non-Christian high civilization, and yet the clergy of all denominations have done the most to retard the development of the sciences upon which modern civilization and their own prosperity depend. They are the conservative element which acts like a large balance wheel, preventing rapid departures from precedent. Indeed, in every culture from the black savage to the blond Aryan, the clergy are the cords which bind the units into compact organisms. Society, without religion is impossible —and the highest civilization will collapse without the binding force of Christianity. The support of the clergy, a non-producing class, is a biological necessity, for they are commensal organisms rendering vital services. The code of ethics evolved by Christianity has always been beyond our individual reach, and always will be—but Aryan democracy cannot do without it.

*Lewis* and *Clarke* mention an association of warriors among the Dakota Indians. These young men, from thirty to thirty-five years old, are bound by vows never to retreat from danger or give way to enemies in battle. They are especially honored above even the chiefs, for they are the safeguard of the tribes. It is the highest expression of altruism and seen only in war in modern times. How different from the Jews, who rarely sacrificed themselves for the good of the social organism supporting them. It is not at all strange that these commensal organisms in Christian nations—the Jews—should practice a religion founded upon individualism. These people cannot possibly unite to form a government of their own, and the Zionist movement is generally recognized as hopelessly impossible. Indeed, Zionism is a biological absurdity.

## CHURCH POLITICS

The centrifugal forces which disrupted the British Church in the period when democracy was increasing individual liberty,

gave rise to dissenting churches which are now exceedingly numerous.* They found a congenial environment in America, where personal liberty was at a maximum and a State church an impossibility. These independent churches so characteristic of Aryan democracy are now undergoing the perfectly natural centralization so inevitable in every organization, and are uniting for mutual benefit. Not only are the United Brethren, Congregationalists, and Methodists talking of consolidating, but the Baptists of the country are organizing a general convention for better church government, also uniting Southern and Northern Baptists. The Presbyterian church is doing the same with the Cumberland Presbyterians. It is the organization so characteristic of American growth. They are actual organisms now in process of birth by the combination of various units—a corporation. Indeed, all the Protestant churches show a tendency to unite for missionary work. It is to be noticed that this organization is not taking the direction of the Catholic church at all—but toward the Aryan independence of the unit—local autonomy—home rule. It is in the direction of that future democracy we will outline later; firm union of independent units who help others by becoming dependent. In other words, the natural laws governing the organization of cells into animal colonies, are operative in every form of organization from Church to State.

Even the organization of individual churches illustrates the types of democracy in the North and South of Europe. The Aryan always tends to make his own church a little democracy of its own, wholly independent of other churches—congregationalism. The Mediterranean and Alpine types of men tend to let the control remain in the hands of an upper oligarchy, as in their politics. Hence, the churches are ruled by the priesthood—even to the point of a monarchial form of church government. This is the ethnic basis for that wonderful organization of the Roman Catholic Church, which cannot find a foothold in the most Aryan of nations, but which seems destined to be the greatest one in America, because the types originating it are now flocking here.

* "Whittaker's Almanac," 1884.

# CHAPTER XXVIII

## THE FUTURE DEMOCRACY

EVOLUTION OF SPECIALISTS—SPECIALISM IN SOCIETY—FALLACY OF GOVERNMENTAL INDUSTRIES—THE FRANCHISE—INCREASING THE EFFICIENCY OF THE UNITS—SOCIALISM—SOCIETY OWNS ITS UNITS.

### EVOLUTION OF SPECIALISTS

The conflict of the two great forces of collectivism and individualism, represented by the republican and democratic parties, has already caused the evolution of a social organism which is a living being as distinct as a mammal. The force of mutual aid has drawn us all into more than a complicated herd for survival. In union there is strength, nevertheless union demands that each unit surrender some of its independence, and the more perfect the union the more dependent each of us becomes. We are now so wholly dependent upon each other that personal independence is forever impossible. By his own efforts the primitive savage can live, but civilized man cannot. Most men never learn even how to cook their food. Organization preserves specialists each able to survive by helping others. We have fully explained how natural law is making us feebler in certain ways, yet better fitted for survival, and it is now the task to show how this is both cause and effect, that is, the evolution of the organism, and its units are parallel phenomena.

All organization proceeds upon the principle of the division of labor among its members, so that the course of the evolution of organisms composed of living cells is the same as that of society composed of living human units. The evolution of the animal organism has gone very much further than society, so that to predict our future we can draw very good data from the discoveries of the biologists. The brain alone is composed of

9,000,000,000 cells, so that if we add the billions in the blood, muscles, bone and other tissues, we find an enormous number of billions of citizens of this most perfect of democracies. When we consider that there are only 1,500,000,000 men on earth we comprehend what an enormous commonwealth one human being is.

In the beginning of animal evolution the single-celled amœbas were "free and equal," that is, all were alike, of equal powers, and absolutely independent. Each was free to kill the others if he wished, for there was no check or limit to his democratic freedom, except the limit of his own powers. This was like the first state of man in his eolithic or protolithic, or even an earlier stage—each one absolutely free and independent, depending upon his own powers for survival, killing whom he pleased and when he pleased, if he was able—unbridled democracy.

In time, some of the single-celled organisms did not separate when they divided off from parent cells, but remained together in a crowd. As a cohering mob of blood-relatives they had an immense advantage over individual cells, and survived when it was a question of a struggle for existence. But they were still "free and equal," able to survive if cast off from the crowd. This was like the stage of the first organization of man into a society. A mob of brothers and cousins living in a limited area were able to resist attacks of individual enemies, and must have survived over the men who did not stick together as families. This primitive grouping may have existed in the pre-human stage, for we see it in the monkeys at the present time.

Then came the first stage of division of labor between the cells on the outside of the "colony" and those on the inside, the first steps by which the former eventually formed the skin and its appendages, including all the nerve cells and the brain, and the latter formed the gastro-intestinal canal with all its appendages, including lungs and liver. The two became the epiblast and hypoblast respectively of the early ovum. The outside layer developed the protective and ruling citizens; the inside developed the commissary and productive citizens. Between these two layers of cells, were others (mesoblastic layer) which took up the function of holding together and moving the

other two sets and eventually formed the connecting tissues, including bones, muscles, and fascia—the transportation systems. At first the cells were absolutely equal, though not free, for each had now become dependent upon the crowd for its existence. Those on the outside could be protective skin or digestive stomach, and if turned inside out the organism functioned as well as before. This was the stage of social organization called the clan, consisting of several families of blood relatives. All of its members were on an absolute equality as to powers and work, yet not free, for they had delivered up part of their freedom in return for the protection of the clan. They were dependent but equal, each could be hunter, farmer, soldier and mechanic—a jack-of-all-trades.

Now came the stage of specialization. A cell which devoted itself to one thing did it better than one which could do many things, so that the organism which by normal variation possessed these specialist citizens had such an immense advantage over the others having jacks-of-all-trades citizens, that it survived when it came to a pinch. The "citizens" of the skin could not do the work of the citizens of the "stomach," so that all were now dependent upon the organism for existence. Freedom was wholly lost, and so was equality. This is the stage of the nation among men. Organization has gone so far that certain men can only supply the food (farmers), others attended to cohesion and defense (police, soldiers, judges, etc.), others attend to transportation, and others to directing and executing. Each man is wholly dependent upon society for life itself; he cannot exist independently. His freedom is gone forever, and so is equality, for no two men are equal in their powers, now that all variations survive. *Prof. S. B. Laache,* of Christiana, Norway, a few years ago even showed, in his article on "Reciprocity in Pathology," that the various parts of our body have commensal relationship and are wholly dependent upon each other while mutually assisting each other.

Organization now took the direction of increasing specialization, and the higher the organism the more limited is the sphere of duty of each cell. It has gone to such an extreme that the cell-citizens of the bodies of mammals are so specialized that each

can do but one little thing. Division of labor has reached an extreme undreamed of in any modern factory, for the cell-citizen has become so specialized as to be absolutely unable to do anything except his own little work. He may act as a fish scale on the skin to protect mechanically by his body; he may be transparent in the cornea; he may contract in muscle or give out a peculiar form of energy in a nerve cell. We now have a perfect picture of commensalism or mutual aid. Each cell works for the community while working for itself. It is fed, protected and cared for simply because it is needed by the commonwealth. A cell is even protected and fed long after the community, by change of habits, has no further use for its special duty. Thus the vermiform appendix and other vestiges of former useful parts are retained for thousands of generations after they cease to be useful. It is the law of *organic inertia*. Similarly, society retains many units long after their usefulness ends—criminals, insane and paupers—but this is a result of the necessity of making life safe for every one. But the community has no hesitation in sacrificing citizens when the occasion arises. When enemies (bacteria) invade the society, the soldiers or leucocytes hurl themselves in vast armies to combat the invaders—actually eating the enemies alive. Uncounted numbers of leucocytes perish in this battle—an abscess is a mass of their dead bodies. They have sacrificed themselves, like Japanese soldiers, to save the commonwealth. In like manner, parts are sloughed off *en masse*, when they become deleterious or when it is otherwise necessary.

Control is absolutely necessary or the cells would run riot. A cancer, for instance, is a mass of cells which have escaped control, though of course we do not yet know why. The disease is the result of lawlessness. There are certain citizens, the nerve cells, which have been born to guide, direct and rule, as their ancestors have done from time immemorial, even back to the time when they were part of the surface or protective layer. The brain and spinal cord are merely infolded parts of the skin. These citizens have the ruling divided up among them in a specialized way. Some control all the transportation systems, others constitute a signal corps, and some of these are in a tele-

graph exchange, others in a telephone service, others in the telescope service, others preside over signals set up by waves called odors and tastes, other sets of cells manage the factory operatives of various glands such as the liver, parotid or stomach, carefully regulating the amount of finished product according to the common needs. Other citizens attend to the heating apparatus and the power plant, others look after ventilation (breathing), or the circulation of goods in pipe lines like the Standard Oil Trust, and others attend to sewage. These are all ruling and guiding citizens who never do any productive work at all. They are like the staff of an army, and are all more or less controlled, coördinated and directed in their work by the higher brain-cells whose functions we call the "will"—the general in command. Some are quite independent of the will and are said to be involuntary in their action, nevertheless they are under control of some sort.

There is nothing like a caste system in this socialism. Each cell, to be sure, is confined to its hereditary calling, and some sets are vastly more important than others. An arm can be cut off and the organism survive, but the destruction of a few brain cells might be fatal. Consequently, some citizens are given better protection than others, and more food. The blood supply to the head is enormous, as compared to that given to the feet. But the caste system is absent in that each citizen is on an equality as to its needs. It is a true democracy in which very few citizens possess the franchise or direction of affairs, and yet nearly all have some share in creating what might be called public opinion—the mind.

## SPECIALISM IN SOCIETY

Now, when an isolated nation of men is long established its invariable tendency is to take a similar course of evolution. The citizens become specialized, by reason of variation in development, and break up into hereditary groups each of which does one little thing, and the ruling class—constituting the brain and nervous system of the organism—becomes hereditary also. The organization of ancient Egypt into a huge living organism

is well described by *Alexander Glovataki.** "It was as one person in which the priestly order performed the rôle of mind, the Pharaoh was the will, the people formed the body." China is the best illustration, for here we find men employed as hereditary farmers, fishers, actors, boatmen, soldiers, barbers, coolies, etc., just as their respective ancestors have done from time immemorial. Each man takes up the work of his father and so on indefinitely. The ruling element, though not hereditary, is also much specialized, and is as unfit and unable to do any productive work as the nerve cells in a mammal. China has been conquered, overrun, repeatedly "broken up," yet it survives over all disasters, because it has unwittingly taken the course of natural evolution of living organisms, like the mammals. It is a huge organism composed of specialized units. Individual liberty is at a minimum. The citizen's life is of no moment, and is unhesitatingly sacrificed if the common good demands it. Its army was formerly like a mob of leucocytes without cohesion, acting by mere numbers. Its whole system is closely allied to what we find in the lower forms of animal life. Chinese democracy, nevertheless, is a living active force, as described in the "Letters From a Chinese Official."† The Government is dependent upon the people and not the reverse. New laws are made only upon their demand, and after proof of efficacy and popularity—never imposed from above.

That is, the social organism develops a mind which is as distinct a thing as the human mind. "Public opinion," "crowd mind," or "race mind" is the composite of the thoughts of all men, and to a certain extent the mind of man is the composite of what might be called the minds of his individual cells. The "mind" of a hive of bees or nest of ants is of the same nature. Even in Russia where there is almost as little personal freedom as in an ant nest, there has always been a powerful public opinion upon which the government is based. The Duma now gives expression to these opinions and the government cannot move without its aid.

Organisms could not have been welded together unless the units thought alike in a general way. Hence, the "crowd

* "The Pharaoh and the Priest." † McClure, Philipps & Co.

mind" keeps us alike, each one tries instinctively to do as his neighbors. Fashions are inevitable. Solidarity would be impossible if we did not dread being conspicuous and did not prevent others from departing too far from custom. Hence, the social mind is guilty of the most fiendish persecution of innovators or any one who is unlike the mass or breaks social customs.

In Europe, the older nations naturally and invariably took a direction which would have landed them in the condition of China, if other factors had not entered. In nature, the struggle for existence or survival was always decided in favor of those organisms which could take care of their offspring best. So that mammals drove all other organisms to the wall, exterminating those which could not adapt themselves to changed conditions. Those mammals succeeded best which had most brains, hence, man took the lead over all the others because he could take care of his family, and could organize best for mutual protection. Now, we can appreciate why China, huge and unwieldy, in spite of high organization, is at last slowly being forced out of existence as an independent social organism. It can be likened to those huge saurians which flourished at one time but which disappeared before the onslaughts of smaller mammals with more brain and better able to take care of offspring. China as an organism, has very little brain, most of its 400,000,000 are mere animals—coolies, laborers, low-grade farmers and boatmen. It has as little brain relatively as a saurian, and its nerve organization is just as primitive. It cannot possibly stand before the Aryan social organism, with its higher brain and nervous system. So China is invariably whipped and partly dismembered after every fight with an Aryan organization. The same struggle took place between different types of men and nations, and all inferior types have either perished or become commensal subordinates to higher nations. Man never permits a living thing to survive if it is inimical to him.

Mammals which are changed by breeding so as to render more services become "domesticated," are protected, and are driving all others to the wall. The earth seems now to be in the possession of man, and the domestic animals he has bred up to this commensal existence. Likewise, a higher nation never permits

other nations to survive if they are inimical to it. All are exterminated unless they are changed to render service to the higher nation, taking somewhat the relation of a "domesticated animal" to man. Hence, the ruling surviving nations, like the ruling, surviving mammals, are those with the most brains. The result is that the Aryan nations contain a superabundance of unit citizens capable of acting as nerve cells for lower nations, and there is a constant stream of these men flowing out to take superintending positions in lower organisms. In other words, the organization of mankind is not taking the direction of several organisms, but of one huge organism, including all men on earth, and the type is to be similar to that of a mammal, excepting that it will be immortal.

At present each unit has the power to reproduce itself, and the family is the basis of social organization because of this power. Yet it is not at all impossible that social organization may finally restrict reproduction to certain classes, as in a mammal. But such an evolution requires millions of years and need not worry us now. The propositions to regulate procreation and marriage to those we consider fittest is not only impossible, but would be disastrous, for no one knows what kind of men are best for the future.

We can see the handwriting on the wall already, for more than half of all human beings are now protected and guided by the Aryan brain, to their mutual benefit. Some men with black skins will remain as producers in countries where black skins are needed, but not being possessed of brains will have them loaned for guiding purposes. Brown brothers will be in other countries, guided by white, to produce more of their special products for white man's use, but receiving a reciprocal benefit in the way of an immense market which they would not have if white men were not present to get it for them. It will be absurd to think that the brainless units, unable to think, are to do any thinking. Few individuals in these lower races will be able to wield the franchise or take any part whatever in governmental affairs.

## FALLACY OF GOVERNMENTAL INDUSTRIES

These biological laws of evolution of society explain the utter failure of State management of what are called public utilities, but which are really local organs in the body politic. *Hugo R. Meyer*, formerly Professor of Political Economy in the University of Chicago, has investigated this matter for many years and has published two books on the subject, "Municipal Ownership in Great Britain" and "Government Regulation of Railway Rates."* He proves conclusively that it is always a disaster to the society if the ruling units take charge of matters which the working units alone are able to do. The delusion is widespread that if government only takes charge of something it is done properly, even though it has not the brains or bodies to work with. It is forgotten that the brains of the country are apt to be in the employ of corporations and will not work for the poor pay of government office. The delusion arises in the lower layers o society—the less intelligent ruled elements—which always look up to the rulers to initiate and manage everything for them. It is the Russian peasant's stupid way of demanding everything of "The little father"—the Czar. It is the sign of racial childishness and the opposite of the Aryan democratic spirit. *Meyer* proves that State ownership or regulation invariably paralyzes industry because it interferes with that private initiative which has made America the leader. In this we owe an immense debt to the democratic party, which insists upon keeping hands off individual liberty and corporation liberty. In the great public utilities, telegraph, telephone, trolley lines, railroads, lighting and power, we lead the world. State management in Europe has paralyzed advancement—individual liberty in America has pushed it.

The cause is far deeper than *Meyer* imagines, for State ownership violates biological laws. The cell-citizens in the liver form a monopoly, do all of this kind of work and cannot be replaced. They are merely controlled by nerve cells. The other glands, salivary, peptic, etc., are merely so many trusts in our bodies.

* Macmillan Co.

It is true, then, that the formation of gigantic self-governing trusts is in the natural direction and bound to come. Yet the brain cannot take over the functions of the liver, nor can the government economically take over the furnishing of food, light, power or water. These are duties of groups of units, working for themselves while aiding the government. The nervous system does, indeed, check and guide the liver in its activities, but the "will" cannot manage it. Some control of trusts is, therefore, the natural course of events, but it is unnatural for the government to assume charge of them and try to do what only they themselves can do. The New York Public Utilities Commission is a step toward the future social control of all groups of units, for every group is a public utility of some sort.

So we need not worry unduly about the trusts, for they cannot long violate the law of mutual aid even if they are violating it now. No body of units can survive if it becomes so powerful that it injures the organism by which it is subsisted. Every organ of our bodies dwindles in size if it happens to be too big. The trusts will dwindle if they cannot sell their goods. People who cry out too much against the trusts do not understand that natural law is regulating the matter. Indeed, the people themselves are directly responsible for the existence of the trusts, because we all buy from those who sell cheapest and thus perpetuate the biggest companies which generally, if not always, produce things the cheapest. It is even worse than that; we have always helped the trusts or big corporations to kill off the small rivals. If the Standard Oil Company desired to kill a retailer who did not sell its goods, it merely started a store next door to sell below cost. The people flock to the cut-rate place to save a few pennies—the small dealer is ruined—and then the price of oil goes up to its normal or above. The people, for a few pennies, have killed competition, and if they should suffer a little while, it is their own fault. Nevertheless, the trusts are really huge organs in the body politic like the liver trust in our own bodies, and both obey the same natural laws of organization and control.

The fallacy in most of the Utopian plans of a certain class of socialists is the belief that salaried agents of a government are

more competent in any business than men who are working for themselves. If a man manages his own coal mine, it does not increase his efficiency to buy his mine and put him on a salary, but decreases it. When private enterprises are unrestrained, there is a survival of the most efficient, and the least efficient fail—but if salaries are given, the least efficient survive with the others. There are a few instances of success in municipal ownership of milk routes, for instance, but far better results follow from supervision of private dealers. The true socialism is government regulation of every business, and that comes of itself by a gradual evolution. New York City tried to light one of her bridges, using free fuel from city wastes, but found that it would be cheaper to buy the light from a private company. Italy invested hundreds of millions in railroads, which do not pay interest or even running expenses, the surplus being raised by taxation, and the service is execrable. Australia had the same experience. London's democracy demanded all sorts of free public service, even municipal houses, but the only result is to increase taxes unbearably. So the present demand of thinking men is to end the paternalism so harmful to the lower layers which demand it, and limit governmental functions to a mere control of groups of units—the plan of nature. We cannot safely assume their duties, for we may injure both the trust and ourselves. Rate reduction is now known to be harmful to the railroads and reflexly the public, as our Southern legislatures are sorrowfully discovering.

## THE FRANCHISE

It is now evident that the form of our future social organization is to be worldwide, containing as its units every man capable of doing some commensal good to the organism. All other men must and will perish. Each man will do that which he can do best. Those born with small brains will not be required to do brain work, but the organism's brain system will be composed of men of brains and no others. Although all men will be equal in the protection of society, only those capable of using the franchise will have it, and there will be no hereditary

members of this class, for no young man will be permitted to vote until he proves he knows how to use the vote. The brainless men flocking to our shores will have the franchise taken away, as the negro has in the South, even though it might be a bloody operation. Luckily, the Asiatics, called yellow man, red man and brown man, have not been officially declared equal to white men, and there is no mistake to correct as in the case of the Asiatics and Mediterraneans from Europe, who are mistakenly called Aryans because they speak Aryan languages.

No class will be permitted to aggrandize commonwealth while others suffer. A mammal suffers and dies if one class of citizens, say the liver, collects masses of nourishment while the nerve cells are starving, and so must a nation. An inheritance tax of fifty or seventy-five per cent. for large fortunes will soon equalize matters, for even the rich themselves are advocating such a tax. Nothing can be done until brains are put into the executive and guiding positions and paid well enough to stay there. This does not mean that the franchise or public office is to be limited to men of the Aryan race, but far from it, for every race produces exceptional variations much higher than the average man of Northwestern Europe. *Prof. Bernard Moses*, in an address to the students of the University of California, in 1904, struck the nail on the head when he advocated a franchise restricted to intelligent men, no matter what their ancestry.

We have shown that the variations in the Aryan brain are becoming more and more marked. At the present time, there are lower types and higher types than existed 2,000 years ago, and more of them. Variations are also occurring among the Africans and Asiatics among us. Indeed, some of our most intelligent citizens are of the Asiatic type. The ones to be excluded from the franchise are the low variations of every race of man. This will enable the Aryan to utilize in ruling positions the brains of every other race, but it will not alter the fact that as the Aryan contains a higher percentage of big brains of the world it will be for all times entrusted with the rule of the earth for the mutual interest of all mankind. The action of the Colombian Government in obstructing the construction of the Panama Canal and thus interfering with the progress of civili-

zation and the prosperity of the world, is proof that such governments must be excluded from any voice in the affairs of the world.

In this view of the matter, the negro amendments to our Constitution are scientifically correct in that they make it possible for exceptional variations in any lower race to take a share in the higher governing duties if they have the ability. As passed and interpreted by the extremists of the reconstruction period, they are unscientific and therefore harmful, for they forced some units of the organization to do work for which they were physically unfitted. It forced them into guiding positions, whereas they had not the brains to guide with, and it was as erroneous as to expect a muscle or liver cell of a mammal to do the work of a brain cell. Universal suffrage, therefore, is unnatural, and exists nowhere on earth, not even in the most homogeneous Aryan democracies.

The attitude of the republican party on the question of suffrage is strictly scientific, and, that is, there shall be no restriction of this right by reason of religion, color or race. There is absolutely nothing in that attitude which discountenances withdrawing the franchise from those unable to use it, but by insisting upon the right of the most intelligent men of every race to vote, we make it possible to utilize all the brains of the country, no matter what their race or religion. On the other hand, the lower intelligence of the average Malay renders him as unfit for the franchise as the average negro, and we have repeated the blunder by giving the Filipino a vote he cannot use, and it cannot help being injurious to the native himself. A great restriction of the franchise is absolutely necessary, not because he is brown, but because he is stupid.

The old Roman republic was a very limited aristocracy. At first the sovereignty was held by a few thousand persons, then it passed into the hands of some score families, then it was maintained for a moment by individuals, and at last was seized by one man who became the master of 120,000,000,* and this is what has happened in Venezuela and will happen in the United States if democratic principles are allowed free play—each man

* Draper, p. 252, "Intelligent Development of Europe."

to secure what he can. Luckily, republican principles must forever be used to prevent any units becoming too powerful, and also to prevent useful units from becoming too feeble. The negro amendments must stand forever, though modified by modern interpretation. They are already modified where the negro is too numerous, and the modern interpretation merely gives negroes power if they are able to hold it. The attitude toward the negro in the South is bound to become the attitude of society to its brainless white citizens.

Modern Aryan democracy as upheld by the leaders of the republican party is an illustration of the biological law of the "utilization of the unfit." That is, the types which, in former ages could not survive, are now carefully preserved if they can render any possible service to society. Civilization makes them fit for survival, and they cease to be unfit.

### INCREASING THE EFFICIENCY OF THE UNITS

A most interesting proof of the manner in which even the present organism is utilizing the unfit to get the most out of them, and is ending the old wasteful struggle for existence which wipes out so many, is found in the tremendous movement for physical education all over the world. It is well described by *Dr. Richard C. Newton*, in *Popular Science Monthly*, August, 1907. Every city and school is organizing playgrounds, gymnasia, games and sports, under carefully trained teachers—a a worldwide movement to increase the economic efficiency of each unit. Of course, it is carried to excess here and there, and the boys are often overtrained, but it is a natural wholesome evolution nevertheless. The great athletes do not amount to much in after life as a rule, as they are ruined in heart and arteries, but these excesses can be frowned upon. In other words, each baby born must be reared to the highest possible usefulness, for childbearing is too expensive of vitality to let the offspring survive only if it is strong enough. The "weaklings" are just as useful as the muscular and robust. We have shown that this process has enormously reduced the birth rate, and because these types survive we are a race of "weaklings." It is rare

indeed that children can be raised without a doctor's care, so that as time progresses the medical profession is becoming more and more necessary for race survival. Indeed, there are a few observers who think that the time is not so far off when all physicians will be salaried public officials keeping the units alive.

The modern movement to eliminate unsanitary dwellings is another evidence of this tendency to aid all useful units. The lack of houses for all the people has always caused owners to raise rents to the limit of the tenant's ability to pay, and it naturally followed that the most miserable, disease-breeding shacks would spring up and be eagerly rented by those least successful in the struggle for existence. Thus grew the modern slums, which differ in no respects from ancient ones, except in extent. It was nonsense to expect the owners to tear them down and build sanitary ones yielding only four per cent. on a big investment, whereas they were getting ten per cent. on a smaller one. Men are not built that way.

There is now a change which has been brought about in a curious way. Society has discovered—at least some of the intelligent elements have—that it was being injured by the diseases and crimes generated in the slums. In self-protection, they are passing building laws prohibiting the construction of any more bad buildings, and destroying those already doing the harm. The next step is to prevent the owners from taking undue profits, that is, the rich man shall not injure the poor by taking advantage of their feebler abilities to make money. Society is injured if its beneficial units are injured. So, all over the world they are organizing companies to build small sanitary houses to rent at not more than five or four or even three per cent. profit. In the city of Washington, the movement is highly successful as a business venture.* It is diminishing the morbidity and mortality rates, and is bound to be a tremendous factor in reducing the birth rate also. It is really the first step in the direction of eliminating the "land lord"—the type which has owned land and shelter since prehistory, but which seems doomed to extinction as it injures society.

* Sanitary Improvement Company, by Dr. Geo. M. Kober.

Men who have written of the evils of private ownership of land and shelter have most unwisely advocated government ownership and rental at a low figure, in utter ignorance of the fact that such changes are a matter of slow evolution requiring many centuries. Already the land of the world has mostly been taken from the large holders. Even where the law of primogeniture forbids such breaking up of estates, the tenants are often owners *de facto* if not *de jure*. Indeed, laws are making the tenant's rights irrevocable as long as he pays a fair rental. But this new-house movement has gone even further; it is doing away with individual ownership and replacing it by corporate, and the corporation is forbidden to make any more profits than three or four per cent. That is, society is gradually assuming control of another public utility, simply because the lives must be protected from harmful competition.

### SOCIALISM

Under the term "socialism" are grouped numerous more or less quixotic and unscientific plans to end the sufferings due to overpopulation and inequality of men. Communists honestly believe that property belongs to all equally and not to the exceptional men who do most to create it. The Utopians look for a future condition of society in which all are equal. These are all unnatural and therefore mere vagaries of reasoning of minds ignorant of facts. There is a scientific socialism, nevertheless, which is becoming more and more known because it takes into account the past evolution of society and tries to predict its future. Modern industrialism which made it possible to live in supersaturated masses fed from distant farms, did not become evident until the middle of the nineteenth century, when a large number of clear-headed thinkers and observers accurately saw its course. *Karl Marx* was the chief of these, and he with *Friedrich Engels* seem to be the joint authors of the modern school of scientific socialism—a name badly chosen, by the way, for in the minds of most people it has become associated with anarchy, and other absurdities. This evolution of a new socialism has been described by *John Spargo* in his recent work,* and

* Macmillan.

should be read by all Americans who wish to know the direction we are drifting in our civilization. There is good reason for thinking that some of the things for which even the scientific socialists are striving can never be accomplished because they are unnatural, but that does not alter the fact that most of their desires are in actual process of realization by the evolution of democracy. The only mistake is to try to bring about these conditions prematurely by human law, instead of waiting until they come by natural law.

All attempts to create communistic societies have failed because the units—men—are as yet wholly unfit for such a life, and it will require the evolution due to natural selection of proper variations through thousands of generations to cause a communistic type to be created. That is, the units necessary for the future democracy are being evolved at the same time as the organism itself. Already we are hopelessly unfit for the first primitive Aryan society of Scandinavia.*

We are already socialistic as to compulsory education, which was formerly a private matter. We are almost furnishing free medical and surgical care as though the sick already expected to be cared for by society as a right, and perhaps he ought to be in the extreme future, but not now by a long shot. Patients in all public hospitals should be compelled to pay, and after recovery should be put to labor if they refuse to pay for saving their lives. *David Lloyd-George*, the British Minister for Trade, has even gone to the extreme of stating that surplus wealth should be taken to support "those who have ceased to be able to maintain themselves," which is a step toward preventing exceptional men absorbing all the wealth their abilities permit in an unbridled democracy. The alarm felt at the progress of socialism is therefore wholly needless, for it cannot go faster than the evolution of man permits. Nevertheless, the evolution is extremely rapid now, in accordance with the law that civilizations increase in a geometric ratio. Every invention being added to all past ones, becomes a multiplying factor, not a mere addition. Only a small proportion of people invent anything

* An interesting account of New Harmony and other communistic colonies founded by Robert Owen, is found in his biography by Frank Podmore.

new, and when populations were sparse inventions were few and far between, and the paleolithic stage of culture lasted a long time, but each succeeding one was a mere fraction of its predecessor. A decade now makes more advances than in 50,000 years of primitive society.

### SOCIETY OWNS ITS UNITS

In the body of an animal some of the citizen cells are bred up for the sole purpose of sacrificing them for the good of the whole. All those which form the skin, hair, nails, etc., are deliberately shed in the process of protecting us. The leucocytes sacrifice themselves by the billions in time of infection, which is a real war of invasion. A similar evolution is already underway in human society—few of its units are able to do this duty and few are required—a vast change from the state where every male adult was a soldier.

Hence, the question arises whether we all really have equal rights to life itself. In the past we have seen that might always made right in that regard, and those unable to defend themselves were losers. At present survival of all is almost guaranteed as the best way of self-preservation. Yet how can all survive in chronic overpopulation, and which types must be allowed to perish? Some must die that the rest may live. That is, life itself is not personal property as it once was when each man kept it by his own efforts, but it now belongs to society which preserves it for us. It is a dreadful thought that we have long lost the right to live, yet it is so. Life is loaned to us, and the guarantee of survival is conditioned by the occasional necessity of withdrawing the loan. In time of danger, men are drafted into the army, and if caught deserting they are unhesitatingly executed.

The work of *Percival Lowell* leaves but little doubt that the inhabitants of Mars have already reached the stage of a world nation.* They have girdled the planet with canals which are so big that they serve no doubt for both irrigation and transport, and the population must be very numerous, with cities of enormous extent. Wars have ceased, as they will in time on earth,

* Mars and its Canals." Macmillan.

but not until we are all welded together. Martians, individually, may be very limited in intelligence—specialists each knowing his own part well—but the sum total of the knowledge must be enormous. The current conception that all the Martians must be possessed of huge brains is not necessarily true at all, for it is not natural and it is not the ultimate end of the evolution of society. Civilization is the orchestration of specialists there as well as here. Indeed, the Martians may be as far from man-like as we can well conceive.

The tremendous foreign missionary movement which has so signally failed to establish Christianity among lower races not intelligent enough to understand it, is undoubtedly accomplishing wonders in the way of building a foundation for the future consolidation of all men in one vast world nation. In this sense the missions are the expression of natural law, and perhaps deserve our financial support as instruments in the evolution of human society.

# CHAPTER XXIX

## THE CONTROL OF THE FUTURE DEMOCRACY

SPECIALIZATION OF NATIONS—WELDING THE FUTURE WORLD NATION—THE BRAIN OF THE FUTURE NATION—HOME RULE.

### SPECIALIZATION OF NATIONS

The units and groups of units of the future social organism, being dependent upon each other, must be coördinated in their activities to do the best team-work, as we have already explained, and it is now possible to predict where the nerve units will congregate. Again, we must go to the animal organism for facts which explain the evolution of society in this regard. In the lowest organisms there are no specialized nerve cells, but it is believed that all the cells are connected by protoplasmic filaments which keep them in touch with each other; indeed, it may be more than mere touch, for there is some evidence that the filaments are really extensions of the protoplasm of the cells which really never separate entirely. Even plant cells are connected by what act as nerves, and some, if not all, plants are thus more or less "sensitive" to stimuli—some highly so.

As organization progressed, and some cells specialized in this coördinating duty, they collected in groups scattered throughout the body, but in the highest animals efficiency demanded that most of them be grouped in one mass, the brain, though there are still small groups or ganglia in other parts of the body, in the separate organs. This seems to be the direction of the evolution of the organization of humanity, and it follows from the tendency of nations to specialize on what they can do best.

We have seen that this tendency has made the nations of the world dependent upon one another as separate commensal organisms, but in time the ultimate result is bound to make them

parts of one organism, in which each nation will really be an organ or gland of the greater organism. Already we find one "nation" producing most of the meat, another the coffee, another the wheat, and so on, precisely as the glands produce things needed by the body. The Philippines will eventually supply enough hemp to drive out all substitutes. There is a certain grade of long, fine and strong cotton fiber that can be grown in no place on earth except a limited region in our South, and it cannot be woven into fine cloth except at certain places in England, where the atmosphere is constantly of a certain humidity, for otherwise the fibers break in the course of spinning and weaving. These two areas, then, are already two organs in the present weakly organized union between England and the United States.

Civilization's dependence upon trade, to keep alive the separate organisms, is quickly becoming the dependence of parts of one whole, and is creating this new kind of commensalism similar to that existing between the parts of the body. It has become more evident in the past century because of the increasing efficiency of transportation, a growth which progresses with the organization, as it is really the cause of it. We have shown how transportation has caused supersaturation, but it is now welding the world together.*

Primitive man depended on his own legs and his sphere of activity was, therefore, very limited, and combinations of more than a few families or clans were impossible. When he subdued horses and draught animals he could travel farther, and greater societies rose. Yet, it was only by the growth of transportation following the invention of the steamboat and locomotive, that modern empires could be cemented together. It also enabled foods to be brought from all over the world, permitting those dense masses in England, for instance, which were wholly impossible before. Modern cities, too, fed from immense areas, were impossibilities until means were invented to bring in the food from farms thousands of miles away. Each spot on the surface of the earth is destined to be devoted to the production

* The subject was discussed by Martin A. Knapp, in his address as chairman of the Section on Social Science of the American Association for the Advancement of Science. (1905 Proceedings.)

of that one thing which it can produce the best, and the people inhabiting it will be fed from areas which can produce food the most economically. The channels of commerce are, therefore, real "arteries," as they are figuratively called. The goods carried are the life blood of each component part of the "international nation." Each new freight car or steamship not only binds the present nations more closely together in mutual dependence, but is an actual step toward the specialization which makes them organs in one organism.

It is difficult to appreciate the enormous development of transportation. The figures do not convey the proper meaning when we say that railroad stock in the United States alone is worth $17,000,000,000, and that 1,700,000 men are employed. When we add the men engaged in other means of transport, and the merchant classes, it is not far from the truth to say that between every farmer and manufacturer there is a man to transfer food for other necessaries.

This evolution has gone to such an extent that mankind is protecting its channels of trade as carefully as the arteries are guarded in our bodies. By mutual agreement we will not even permit interference by a nation at war, except contraband articles consigned to its belligerent or trade with a blockaded port or besieged place. Belligerents cannot touch the enemy's goods under a neutral flag or neutral goods under the enemy's flag. The nations are even clamoring for the abolition of the right of searching neutral ships in the high seas.

The heart and arterial system of this world organism are already in course of evolution because the people in the Northwestern corner of Europe are seafaring by nature. Of the thousands of vessels going through the Suez Canal three-fifths are British and most of the others are German, French and Dutch, the rest of Europe having little part in it. Norway shows its seafaring abilities in its shipping, and is specializing as a carrier for the rest of the world. Even on ships under other flags it is the rule to find Scandinavians in the crew—Vikings now as ever. The absence of this type from the mass of the Russian nation shows why her navy was inefficient, and why her ambition to be seafaring can never be realized.

## WELDING THE FUTURE WORLD NATION

The future democracy can only arise by welding together the present nations, but each must surrender some of its independence in the same manner as the States of our union, and it cannot do this until the course of evolution has made them all more dependent than they are now. Nevertheless, the first steps have already been taken by the creation of the Hague Tribunal, in which the following nations are represented: Austria-Hungary, Belgium Bulgaria, China, Denmark, France, Germany, Great Britain, Greece, Italy, Japan, Luxemburg, Mexico, Montenegro, Netherlands, Norway, Persia, Portugal, Roumania, Russia, Servia, Siam, Spain, Sweden, Switzerland, Turkey and the United States. But each State still reserves the right to decide whether a question shall be referred to the Court or to war. It is still better to fight out some questions, for some nations must be destroyed when they stand in the way of a better and larger nation. Eventually, no doubt, every nation will be compelled by the others to submit all its international disputes to a court which the strongest will control. It will take time. It took time for trial by jury to replace trial by combat. When Henry II became King of England, trial by jury was legalized but not compulsory, and the accused person or litigant had the right to fight it out. It was not until seven centuries later (1819) that Parliament abolished the right of trial by combat and compelled the citizen to submit to the decision of a jury. Perhaps it will be seven centuries before arbitration will be compulsory.

Some nations have already agreed to submit all questions to arbitration, notably the Argentine Republic on one side and Chili and Paraguay on the other. Similarly, Spain and Uruguay have bound themselves, and the last treaty between France and Great Britain agrees to arbitration for certain questions. It is quite clear on biological grounds that union will take place long before absolute dependence arises. The assertion of independent rights will lead to wars which will be similar to insurrections. In spite of the absolute dependence of our States, the Civil War occurred nearly a century after union,

but the South could not upset biological law, and neither can any nation. Every time independent nations have been welded together, as in Italy, for instance, it has been a bloody operation, and we need not be surprised if rivers of blood are spilled to weld the present nations together.

Mutual interests may bring about union sooner than war. For instance there is the utmost need for a police force on high seas to compel ships to keep in their proper roads and guard the dangerous crossing points to prevent collisions. Nations notoriously incompetent as sailors may be kept off the main highways. An international quarantine service is also an urgent necessity to prevent the embarkation of diseased persons. No locality on earth should be permitted to dump its invalids on any other unless by mutual consent, as in cases where climatic treatment is sought.

### THE BRAIN OF THE FUTURE NATION

The world democracy, or international nation, must then have its army and navy to preserve peace and enforce international law. The tremendous armies and navies now needed to keep the parts from destroying each other will crumble to pieces as of no further use. The only national forces needed will be for local police purposes similar to the State forces in our Union. Of course, there must be international legislative, executive and judicial departments, for the control of the organism, and these will constitute the brain. There will necessarily be local brain centers in each organ or nation to control the units, centers analogous to the ganglia of the body, and that means there will be as much "home rule" as in the body of a mammal, but where will the brain be situated and what units are now specializing for this duty?

It goes without saying that the units doing this work will be those having the brain, and the intelligent nations will do the most of it. But we have shown that through natural selection, average brain and intelligence increase from Central Africa to the Northwestern corner of Europe. Moreover, after this process ceased, emigration continued to eliminate the least successful, so that the average ability of those left at home was higher.

To be sure, only the young migrate—men who have not yet had a chance to prove ability, and many are of a high order, but as a rule they are children of the least successful and inherit parental qualities. The present migration of Swedes—25,000 yearly—is merely continuing the weeding out begun in the bronze age of prehistory. Many of them flow into higher civilizations than they ever dreamed of on their peasant farms—the identical thing that happened to the first emigrants to reach Southern Asia and Europe 3,500 years ago. There is no doubt, then, that Northwestern Europe is becoming more and more intelligent for this reason, and cannot fail to dominate the world.

The English Empire covers one-fifth of the globe; the Dutch Empire is as big as Europe, and the total of all the colonies of Northern Europe covers two-fifths of the surface of the earth, and perhaps over half. If we include Russia, it is more than three-fifths. Of the 1,500,000,000 of people now living, twenty-six and four-tenths per cent. are ruled by Great Britain; nine per cent. by Russia; six and three-tenths per cent. by France; six per cent. by America; four per cent. by Germany, a total of 52.6 per cent. If we include the nations under the guidance of Holland, Belgium, Scandinavia and Denmark, and those protected by the United States, it is probable that six- or seven-tenths of the human race are guided by the Aryan brains of Europe and America, and more than half, probably seven-tenths of these, are controlled by the English. The Northwestern corner of Europe is already the cranium of the future world nation, and to a certain extent London holds the main ganglion—the will—for little can be done in international affairs until it is consulted. The recently acquired independence of Bulgaria is but part of the disintegration of the Ottoman Empire, which has been going on for centuries, and it brings us a step nearer to the control of that empire by Northern Europe, for Bulgaria is merely a pawn for the real rulers.

As the brain needs more blood than any other organ, so the brainy nations are absorbing most of the wealth. Three-fifths of all the gold mined in the world, and nearly all the diamonds found, are owned by Englishmen. French capital is invested all over the world, and the profits flow to Paris. American divi-

dends are distributed in Northwestern Europe almost precisely as they were in the days of colonial plantations. Thousands of Europeans are supported by the immense wealth carried there by the annual flood of American tourists. Curiously enough the nitrogen which flows to Europe from Chili, to keep up the food production, is mostly the property of Germans and Englishmen. That immense commerce already described as centering in the Northwestern corner of Europe is carrying so much wealth that it is now the richest spot on the globe. By actual statistics, it has been proved that over three-fourths of the wealth of Europe is concentrated in the Northwestern corner already, and perhaps one-third of the wealth of the world, and naturally, London, the very center, is the richest spot in this world of riches. Moreover, these riches are so widely invested that it has been said that "every nation is part proprietor of every other." Ownership by absentees is becoming a universal phenomenon.

As differences of climate make it impossible for one type of man to live permanently anywhere except in the location which evolved him, the future "world nation" must of necessity be composed of the present types of mankind, somewhat modified, to be sure, by civilization forced on them, but fitted to live in the diverse environments built up in diverse climates—black men here, yellow there, and the blond in the Northwestern corner of Europe, his breeding place.

Since it is now known that the supremacy of the aggressive "blond beast" of Nietzsche is due to the highly organized brain, it is evident that the Northwestern corner of Europe, where he lives and breeds, will always increase in population to the limit of his ability to bring in foods, and that ability depends on the wealth which his brains accumulate. Even now, this tiny spot on the surface of the earth, possesses more brains than any other, for nearly all of the advances of civilization originate there; it is financing the business of the world, and it is more densely inhabited than any other place. It is not a stretch of the imagination, then, to continue into the future the trend of past and present events and see a time when it will be populated by hundreds of millions of brainy white men who are kept alive by an enormous stream of foods and goods brought in from their "farms" and

factories scattered over the face of the earth—the laborers being the races fit to live there and the managers being "white" men trained and detailed for the dangerous duty, but periodically relieved.

What seems to be a step in the direction of a future European attitude toward America, is the present attempt of foreign governments to induce their emigrants to retain their home citizenship and look upon America merely as a money-making place, so that they can return "home" like a Chinaman, when they have accumulated enough. In spite of the fact that neither Italy nor Sweden can possibly feed their surplus population, each seems to resent the migration to America and wants to repatriate the naturalized immigrants. It is said that there are over 1,000,000 Swedes in America, half being native born of Swedish parents, and the others born in Sweden. Aryan emigrants never before have shown a disposition to return "home," after they were forced out of the nest. They go forth to survive or perish, according as the climate is good or bad. They were always seeking food before, but now they are beginning to go forth for wealth with which to return home and import food. That has been the way Englishmen have gone to their tropical colonies for over a century. It does seem to be a natural evolution after all is said, and perhaps we will see a falling off in the desire to give up allegiance to the home governments. If such a state of affairs ever does take place, it is quite evident that America and all "spheres of influence" will become merely outlying farms or factories for the Aryans at home. *Joseph Chamberlain* correctly described English colonies as "undeveloped estates."

America's brief history is a mere step in the process of many millenniums, for we immigrants are preparing the farms and factories for the descendants of blood relatives we left at "home." Even if our independent existence should last a thousand years, it is a mere episode in the evolution of a world power controlled from Europe.

## HOME RULE

The future control of the United States from the Northwestern corner of Europe does not mean a political revolution, but a gradual, slow evolution which has been going on for some time unnoticed. On account of the lack of physical efficiency of the native born, it is found that the foreign born are being preferred in certain shipyards and other works. Aryans born and raised in the cloudy climates normal to them must be more efficient as a rule than the descendants of those who have migrated to lands of perpetual sunshine, and as an actual fact we find that foreigners or natives born of foreign-born parents, are elbowing out the "old families." The ties binding these newcomers to Europe are feeble after all is said of loyalty to their adopted land, and it will not be hard to break them when the time comes.

Nevertheless, Americans need not be afraid of losing national existence, for on biological grounds it seems impossible. There will always be enough of the higher types here to constitute a local brain center for home rule, even if America is to be a mere organ of the larger organism. To be sure we are too far South for these types, and they must practically desert Washington in summer—in self-defense. It would conduce to survival if we could move the capital further North, but of course that is impossible. Though the types do die out in time, the stream of emigration keeps up the supply, and even if they are the least efficient who are forced out, they are higher than those coming from Central and Southern Europe. It has already been noted by investigators that eighty per cent. of the ruling types in the United States bear Anglo-Saxon names, and perhaps over ninety-five per cent, are derived from immigrants from the Northwestern corner of Europe. The same phenomenon is found in the best of the South American republics, even to a greater extent, for most of the leaders and rulers are European migrants or their sons.*

* The following editorial from an unknown source is to the point:

"The admission of the Havana paper, *La Lucha*, that the University of Havana and the engineering College of Cuba, must secure foreign professors for the higher departments, in order that the requisite instructions may be furnished, is a frank statement of fact and full of significance. It is true of

It is quite evident that by the same process of organization which changes the independent generalized cell into a dependent specialized unit of the body, and which has changed independent primitive man into a specialized civilized man dependent on the nation, will, in time, change each independent nation into a specialized organ of the future world democracy. Already our "Declaration of Independence" is out of date, and it is almost time for all nations to unite in a new "Declaration of Mutual Dependence." The aid given to the Italian earthquake sufferers shows that in time of disaster we are dependent upon assistance from the rest of the world and receive it.*

Cuba and of all the spheres of influence lately attached to the United States that these countries, of themselves, are incapable of supplying their own highest intellectual, commercial, mechanical or other needs. They must receive what is needed from the outside. It is true that while the islands of the West and of the East have been portions of civilized government for four hundred years, they have never produced a great book, a great invention, a great enterprise of any description or a great man in any department of human effort, known and recognized throughout the world."

*It is interesting to note that so rapid is the progress of world consolidation, that since this chapter was put in type, Great Britain has gained control of 15,000 square miles of Siam, and Delagoa Bay has been practically ceded by Portugal as a seaport for the Transvaal. To prevent invasion, as well as guard this empire, Great Britain is enlarging the navy. Our press is constantly discussing whether all the Americas also, should not be put under Northern control. Anti-militarists on both sides of the Atlantic are openly advocating a "big stick" to spread civilization, and Frederic Harrison, their leader, reverses himself after forty years of argument for disarmament. The condition of Turkey is vastly different from what it was when Greek or Roman Aryans controlled the ancestors of these people, and the present disturbances prove that the peace of the world and the progress of civilization demand the renewal of that control by the races of the Northwestern corner of Europe.

# CHAPTER XXX

## VALUE OF SERVICES TO SOCIETY

UNIVERSAL PUBLIC SERVICE—VALUE OF LABOR—HIGH WAGES FOR ABILITY—THE LOVE OF TITLES—FEES TO PROTECTORS—WAGES OF PUBLIC SERVANTS.

### UNIVERSAL PUBLIC SERVICE

It is a fact that by the laws of commensalism in every organization, each unit inevitably works for the good of the whole while it is working for itself. Moreover, each has public as well as private duties, though the latter are not necessarily performed in rendering personal service, for many do nothing except pay taxes, either directly in money or indirectly through the higher prices on taxed necessaries of life. No person can escape doing his share toward the support of the organism, nor should he, for he must pay for the privilege of living. Taxes on necessaries will continue because they are natural.

Yet there are some duties demanding personal service and loss of time—either a short time, as in jury duty, or all the time as in public office. Such personal service was done freely when society was so privately organized that the duties of supporting it were not onerous. But it has long been recognized that in the complexity of modern life they require so much personal sacrifice as to lessen the individual's ability to struggle for existence. Organization is impossible if its existence demands the sacrifice of those who keep it in existence, and the social organism is injured if its units are injured. Men evade jury duty because it injures them unduly, and the organism suffers. The question then arose as to the value of public services, and it has received a world of discussion.

## VALUE OF LABOR

It is an axiom of political economy that when labor is spent upon materials, its price is proportional to the increase of value it gives to the materials. For instance, a stone cutter is hired for but a few dollars a day to carve a shaft of marble, because the increased value he gives to the stone is not very great, but an artist who carves it into a beautiful statue gives it great value, and therefore he is paid much for his labor. It makes no difference how long or how hard or how faithfully a man labors, his pay is in proportion to the increased value he gives to the things labored upon. A lawyer who saves an immense estate from destruction is paid much more than he who saved a small estate, even though the latter may have worked longer, harder and more faithfully. A tugboat which pulls a valuable steamer from the rocks, where it would otherwise be shortly destroyed, receives an immense salvage fee, even if it is for only a few minutes' work.

To a certain extent this political axiom applies to labor spent upon society. He who assists one person to make money does not accomplish near as much as he who assists all, and the latter should receive more pay. Yet work done for society is not essentially to enable the units to become wealthier, but to guarantee their survival. It is life saving. The organism has no property, one might say, though one school of socialists believe that all property is really public, and that private ownership is theft. This may be true of the future organism, but on biological grounds wealth now belongs to the units and groups of units, of the present more loosely organized society, unequally distributed, to be sure, and sometimes so unequally as to be injurious, but the organism cannot own it in the manner the body owns the blood. Consequently, public service is really remunerated primarily for saving the units and only secondarily for increasing their prosperity, though the latter is popularly supposed to be the sole purpose of government.

Now there is positively no way of determining the money value of life. It is an old fiction that it is of enormous value;

indeed, invaluable—without price. So it is—to the man himself, but to no one else. It is often calculated that a human life is worth so many dollars—it was once said to be $2,000 in the United States. This is the amount of money required to raise the child to maturity. When damages are awarded to survivors who had been dependent upon a man killed, say, by a railroad, the amount is proportional only to his earning capacity. If he was a stupid laborer, never able to give to his family more than $300 a year, that is the basis for the calculation of the award. If he could have given them $10,000 a year by his labor, and was possessed of no other income, the damage to them is greater than the damage to the former, for the children are deprived of schools and a good start in life, hence $10,000 a year is a basis for calculation. It is all value of services—not the value of life itself—no one valued that except its owner, who is dead and cannot collect. The matters have been elaborated by *Marshall O. Leighton* in an article on "The Commercial Value of Human Life,"* who shows that the value of a life is its productiveness, and has the same money value to relatives as to society.

When it comes to a question of paying for the privilege of living, we are on entirely different grounds than mere property. The frightful overpopulation always existing has made it necessary to destroy life in ancient times, and as before explained slavery for the vanquished was the price eventually paid for survival. Captives gave all they possessed, not only their goods but their labor for life and that of their descendants. It was an enormous fee for saving what was without price to them. This was at times when destruction of competitors or raiding their lands was the only course to pursue. The military leader who destroyed his tens of thousands, did so to save the hundreds of thousands of the organism he served, and he became a hero for this reason and not because he was a murderer. There has recently arisen an idea that military commanders were highly rewarded because of the life destruction, whereas it is essentially the opposite—men paying money and gratitude for the privilege of living. The land was divided up among the victorious soldiers—a method still in vogue. Nearly all of Great Britain is

* *Popular Science Monthly*, June, 1902.

still owned by the descendants of conquerors who seized the land as a fee for allowing the conquered to live. Greece was owned by conquerors, but the vanquished were allowed to live on the land as serfs. The victors became rulers, and every time the ruled were benefited they had to pay for it then as now; but if a ruler benefited a million people at one stroke, his fee was a million times greater than if he benefited but one.

The superabundance of men caused that curious war paradox so frequently commented upon—materials must be guarded more carefully than the men. In ancient Greece a good horse was worth six slaves, and in many a modern war, a mule was more valuable than the man who could be sacrificed with impunity, as there was always another man ready to step into his place. Until recently, in all civilized armies, it was even the custom to give the mule special doctors to keep him in condition, and these men were given actual rank superior to the surgeons who had the status of civilians employed by the army, without rank, with poor pay and little consideration, not even pensioned if wounded, though performing far more dangerous duty in battle than the veterinarians.

The evolution of organization being based on preservation of the unit, we find that society has already taken on that duty, and we instinctively consider it a right to be saved from death when in jeopardy. Hence, the curious paradox in modern life, of the small rewards we give to those who save our lives, so vastly different from the time when men gave all they possessed. Cases are known where rich men have gladly given a veterinarian fifty dollars for services rendered a valuable horse, but complained bitterly of being compelled to pay a doctor ten dollars for identical services to himself.

In spite of this popular idea men pay enormously for the privilege of living, because overpopulation still exists. The fees go to the public servants now as ever, and the law of supply and demand regulates the matter. The equality of members of ancient democracies made it possible for all to do a share of public service, and the supply being universal, the pay was absent. Each donated his service. In modern democracies, where no two men are equal and the vast majority are mentally unfit to

serve the organism, the guiding duties must devolve on a few highly paid or the organism suffers.

### HIGH WAGES FOR ABILITY

In the immense complexity and division of labor of modern corporations, among whom the struggle for existence is so keen, only those survive which have the most brains. Men with commodities for sale, always sell to the highest bidder, and the men with brains are invariably bought by those who pay the most. Private corporations pay men for what they are worth; hence, it happens that the brains of the country are flowing into the corporations. Is it any wonder they are successful? In 1906 there were in the employ of the Steel Corporation and its subsidiary companies approximately 1,750 men who received salaries in excess of $2,500 a year, divided as follows: Twelve with salaries of $20,000 and over, including the $100,000 salary of the president of the corporation itself; fifty from $10,000 to $20,000; 200 from $5,000 to $10,000; 1,500 from $2,500 to $5,000,* and yet there are Americans who think they can control this mass of brains. There are millions of voters who believe that any creature is fit to put in office at low salary to fight this combination—a fight of wits without wits, as foolish as a fight of rifles without rifles.

A recent article by the *Rev. Thomas B. Gregory,* mentions a young clergyman who left the ministry because the intellectual standard of theological students is to-day much lower than in former times. "In brain power, the graduates of the theological schools do not begin to compare with the students of the colleges of letters and sciences." The church will get the brains if it pays for them, but in the meantime its prestige is being constantly lowered through the mental inferiority of the priests. It so often happens that priestly ideas are wrong that there is a beginning distrust of clergymen, and indeed, it seems as though a candidate for elective office is occasionally helped by clerical opposition. In the 1908 elections some candidates violently opposed by the churches received the highest majorities.

* Walter Wellman, *Review of Reviews,* March, 1900.

The corporations are also more and more coming to the plan of life tenure of officials during good behavior and pension in old age—just the opposite of the unnatural and unscientific "turn-the-rascals-out" plan of our democratic political life. Nothing attracts good men so much as surety of employment and some comfort and support in old age. In spite of their large salaries we find as an actual fact, that all corporations have difficulty in filling the positions paying from $5,000 to $10,000 a year. Such brains are very scarce, as we can readily imagine when we remember that the average earning capacity of the human brain in the United States is less than $500, some say $400 or even $300. In India there are many millions of adults unable to earn ten dollars a year—some earn less than two cents a day. Instead, therefore, of taking any or every one for any public position, the higher positions should be exceedingly difficult to fill, and to attract the proper men requires salaries which now appear enormous to the small brained voter unable to earn more than $300 a year.

When we drop our ideas of democratic equality so useful 3,000 years ago, and acknowledge that some men are better than we, then we will compete with the trusts, by paying higher salaries and getting brains to work for us, instead of against us. We cannot do this until the brains of the country get the sovereignty back in their hands away from the negroes, Slavs, Asiatics and paupers. The men too stupid for the franchise, and who are now unable to make $300 a year, will not be a menace to government by the brainy, and there will be no demagogues to appeal to their stupid prejudices, for their opinions will be useless without a vote. They are ignored in the government of the big cities of Europe. Then there will be no cry of salary grabbing, when we pay $50,000 a year to put upon the bench a lawyer now working for a trust for $40,000. We will be well served, like the British who have the sense to pay enough wages to secure the best public servants. Luckily the movement to correct our faults is becoming popular.

The solidarity of the British Empire is in part due to the pension system, whereby every servant after twenty or thirty years of faithful work for the organism, can retire and be supported in

comfort in his later non-productive years. In America we are drifting toward this natural British system. Every congress passes some law increasing pay and security in office, so as to attract the best to serve the organism—and as this is the natural law of organization, old-age pensions for civil servants must be granted.

The trend of events is illustrated by the success of the Galveston plan of municipal government. People have at last wakened to the fact that it is a business needing business men, and that neither the people nor their elected representatives have the ability to do this complicated social work. The city is now considered essentially a business corporation, run by a few commissioners as paid managers, and the commission is even given legislative powers by the stockholders—the people. It is the only feasible plan and it must come in all cities, and the greater the city the higher must be the salaries of the managers to get the best. Already the plan is proving successful beyond all expectation. It is very economical, and the cities are obtaining good streets and public service and lower taxes undreamed of in the old plan in which so many looked upon public office as a place to rob their employers. Des Moines, Leavenworth, Norfolk, also Haverhill, Mass., are all practicing this new plan. Self-government is simmering down into the right of stockholders to select the best managers called governors. If New York City would elect for long terms three managers of proved executive ability and probity and pay salaries of $50,000, and arrange to have the commission's acts audited by courts whose judges were appointed for life, there would be a vastly improved state of affairs, and perhaps a yearly saving of the $25,000,000 now alleged to be wasted.

The payment of law-makers is a perfectly natural evolution from the time when the primitive Aryan practically fought his way to the folk-moot. Subsequently, only these ruling classes were elected to the Parliament, and of course, they served without pay. It was their life work and they were supported by estates given them for public service. In America where there were no governing classes, we were compelled to adopt the opposite plan of sending representatives who were really paid attor-

neys. Thus it happens that the Parliament is the English nation, while Congress "represents" the American. Whatever Parliament does, becomes part of the Constitution. The two types are changing to a common form. In addition, not only are an increasing number of members of Parliament receiving pay in some way, but we are sending an increasing number who have "estates" really granted them. England has a large class of hereditary public servants, trained from infancy in state-craft, and her main university is designed to give this training, but she is being represented by an increasing democratic element. America has no class trained in state-craft, and the universities are all designed to educate the democratic units for a selfish struggle for existence, but there is an increasing number of well-to-do young men who have taken up state-craft as a calling and not as a means of livelihood. Yet they all must be paid in one way or another for this tremendously valuable service.

### THE LOVE OF TITLES

A Russian nobleman has been quoted as saying that "The best talent and the highest ability and character among the Russian people naturally gravitate toward the throne." In America they gravitate away from public service, and both systems are deplorably bad. In Germany, England and other highly organized democracies it is truly wonderful what great ability drifts into state-craft, and it is also remarkable that the democratic opposition to their centralizing work comes from men of inferior races or lower layers of the upper race. In America some of the highest are still in the democratic ranks as a matter of course, for we began by all being democrats.

The difference between the struggle for titles and the race for wealth can now be appreciated. In a well organized society of any kind, whether it be a railroad, factory, army or nation, it is necessary to have men to guide and direct groups of units so that efficient "team work" is done. That is the spirit of coöperation, enabling a thousand organized men to do far more work than a thousand acting independently. A regiment of soldiers who obey orders can overcome thousands of men who act as a

mob. The growth of European nations was due to the fact that the kings discovered that a standing army—a regular force of trained professional soldiers—was able to prevent the unorganized opposition of independent feudal kings or lords. The feudal system collapsed as a result of the evolution of society into larger masses, and huge nations resulted from the amalgamation of many little ones. Likewise big factories replaced the little ones through the operation of the same laws. A thousand laborers whose work was coördinated by bosses, could make things more cheaply than the thousand men who worked at home with inefficient machinery.

Now, no organization is possible, unless there are titles to designate the bosses. Rank, with power to punish for disobedience, is a necessity in the nation, factory or army. Railroads and factories used titles for the managers, and these titles are sought because they indicate power and good salaries. In nations we find the same rule, and in spite of our hatred of Old World titles we were compelled to invent new ones when we organized our nation in the New World—His Excellency instead of His Majesty, Honorable instead of His Grace, and so on through the whole list.

There is a curious contradiction in public sentiment in America. We inherit the Old World love of titles; indeed, it is instinctive with all human beings, and a matter of survival of the fittest, for no others were able to survive. We blame our girls for marrying the "leaders" or "dukes," but it is the most natural thing in the world—women have been doing it for thousands of years.

As a matter of course, the leaders of men—the "dukes"—were compelled to be oppressive to certain elements of the population in order to solidify society. The ancient antagonisms between the "barons" and the "people" were, therefore, identical with the modern antagonisms of the centralizing political parties and the decentralizing or democratic parties. When a chance arose to escape from this oppression, the failures emigrated. The great men of England and the continent were and still are content to stay at home It thus happens that America is populated by the people who are "democrats" opposed to the

centralizing ruling aristocrats, though reverencing rank and power.

The results of this are very deplorable. Every man is working for his own selfish ends, because there are no public honors or ranks as rewards for working for society. While men abroad will work a lifetime for the nation to be called "Lord," the public servant here works for money or a few miserable temporary titles or honors which he cannot transmit to his sons. Europe has thousands of men who spend their whole lives working for national advancement, and we have none, but we have untold thousands who spend their lives robbing the public. Europe has thousands of great statesmen who are not tradesmen; we have thousands of great merchants and princes of industry who are not statesmen. Centralization produces one class, democracy the other.

All this does not mean that we must create a titled aristocracy —far from it—such an institution would be a disaster because abnormally great men do not transmit their abilities as a rule. Scarcely any of the signers of our Declaration of Independence have left descendants in public life, and most of the families have reverted to mediocrity or become extinct. The Lords of England are even proposing to exclude their reverted types from the House of Lords by electing only those who have inherited the ability of the founders of the line. For a long time England has depended upon the creation of new aristocrats to replace the families which degenerate and die out. We are working out our salvation on other lines. Rank and power being dependent upon the man's brain must not be hereditary. In time we will give lifelong honors to public benefactors—and England shows a tendency to do the same. Both organisms are evolving toward the same mean, but from different directions. They are losing respect for hereditary lords and we are losing respect for the men who have done nothing but make money by exploiting us. Each class will eventually be suppressed. Titles will cease with the earners of them, and huge fortunes will be partly confiscated.

We, poor, foolish, misguided Americans have thought that we can upset natural law. We have become convinced that he who

renders services to the community shall not be paid nor honored with titles according to the value of those services—and see the results! Public officials are given small fees or salaries, and are apt to take the balance in other ways. The people must pay for services rendered to them, just as their ancestors did, for they cannot get something for nothing. The epidemic of stealing in our municipalities is therefore natural and ineradicable as long as we imagine that men give away immensely valuable services.

It is not a whit cheaper by our present method than by the English one of enormous salaries and enormous pensions. Indeed, we probably pay more for the services of public servants than any other nation. Chinese are paid very little by salary, but very much by a method of "commissions," and "fees," which to Aryans is peculation and bribery.

### FEES TO PROTECTORS

Soldiers have always received large fees. Leaders took the land, but the cities were given to the soldiers to loot—it was their pay for services rendered the home community. If the army received no loot, it simply looted villages on the way back, and even the home towns. Soldiers have always been the highest paid officers in the land, because they were high themselves, the rulers of the non-fighters. People stand aghast at the "enormous" pension bill now "saddled" on us, though it is the cheapest pay soldiers ever got. They might have divided up the South as our ancestors divided up England, but instead they took pay for services in the way of pensions. The men who stayed at home to make money are fools to think that other men will do the fighting, take all the risks, and the stay-at-homes reap the benefit. That is not paying for service according to its value and cannot be tolerated. It is already discussed in England as to whether the stay-at-homes and those whose property was saved in Africa should not be taxed to give a life pension or a big lump sum to every one who served in the army. The billions of wealth protected and saved by soldiers in our next war must pay salvage of hundreds of millions in the way of

service pensions. This is far cheaper than the old style of handing over everything to the soldier in payment for services. That was like giving a lawyer the whole estate for saving it. On the other hand it is a notorious fact that many of our prominent families whose wealth was vastly increased by the civil war, did not have a single representative in public service. Such fattening on the blood of others cannot be tolerated again, and the fortunes will be taken away in time.

When our soldiers entered a Filipino city they found it deserted, and yet they protected it from destruction, brought back the owners of the houses who had been frightfully overtaxed by the insurrecto government, yet we claimed no salvage and later we calmly paid these same owners most exorbitant rents. Our Civil War cost $6,000,000,000, and saved untold billions to the nation by preventing disruption of the union. Nevertheless, only $3,333,333,000 have been paid in pensions. The rich stay-at-homes have profited by the blood of soldiers as never before in history. Lord Kitchener was given an enormous fee for his work in South Africa, but we cast ignominy on the soldiers who are developing our national prosperity in the Philippines.

## WAGES OF PUBLIC SERVANTS

Hence, we see that services to any democracy are high priced and demand specialists. The sooner we recognize these two facts the sooner will the unnatural conditions in our cities be rectified. *Charles Fourier* prophesied 100 years ago that "vast joint-stock companies, destined to monopolize and control all branches of industry, commerce and finance, would establish an industrial or commercial feudalism that would control society by the power of capital, as did the old baronial or military feudalism by the power of the sword." Perhaps it is now time to stop this tendency and employ agents intelligent enough for the purpose. If it is true, as many thinkers assert, that the trusts are merely the first stage of an evolution whereby they become government organs, then the matter of pay will rectify itself. The officials will become officers and the present high salaries will be continued as a matter of necessity, and the

rule will be extended to all other organizing and executive offices.

It has been objected that as we do not employ the best brains for public office, they do not render as great service as they claim and are, therefore, not entitled to high pay. In a certain sense that is true, but it is also true that they are in a position where stealing is easy. It is a rule to increase wages according to responsibilities, yet even that does not entirely prevent occasional peculation. It is placing a very low estimate on humanity to say that every man has his price, for there must be many whose figure is so high as to be beyond price. When police protection ends, cities are looted, for stealing is still a normal, natural human trait—sorrowfully as we must confess it—but it is one result of the survival of the fittest in an awful struggle for existence. Ancient methods are too crude and brutal nowadays, so we resort to all kinds of refined subterfuges by which we keep within the law. High wages for those we trust with our public funds and public affairs are therefore in the nature of safeguards against our natural tendencies, but the basic reason for high wages for public officers is the fact that they are comparatively few able to do this great work of life saving, and we must pay high for the privilege of living.

# CHAPTER XXXI

## FUTURE EVOLUTION OF THE AMERICAN DEMOCRACY

OUR NEIGHBORS—LATIN REPUBLICS—THE AMERICAN PROTECTORATE.

### OUR NEIGHBORS

While the laws of organization are slowly but surely welding together the nations of the world in mutual dependence, each nation is similarly welding into its organism smaller nations formerly living an independent existence. The absorption of Bosnia and Herzogovina into the Austrian Empire is merely part of this desirable process which is of incalculable benefit to both province and empire. Expansion, imperialism and commensalism are therefore synonyms, describing a universal process which is going on in America, too. *Creasy*, as early as 1851,* predicted the present expansion of the American Commonwealth as inevitable. The succeeding half century of events permit us to predict still further expansion.

A very clear and accurate statement of our attitude is that found in the chapter on "The Problem of Territorial Extension" in *Bryce's* "American Commonwealth"—indeed, this chapter is probably the most interesting and most accurately prophetic in the book. Writing in 1889, he stated the fundamental reason why the problem was not then important—the unsettled lands in our West. As long as there were places for the surplus population to flow into, it was, of course, unnecessary to look for more room, but he saw, as everyone did, that as the land filled up, there would be a struggle for more. He dismissed Canada as far as political union is concerned, because of the disappearance of the old hostility between England and the United States. Our animosity was formerly a result of oppression, but now that

* "Decisive Battles of the World."

England has become more democratic than we and has effectually curbed its monarch, there is no fear of his tyranny on either side of the ocean. Finally, the commensal relationship of the two countries has made enmity impossible—we are now necessary to each other. Canada is the mistress of her own fate. She can secede from the Empire and join the American Commonwealth if she wishes—the British will not object—so they say. There is, nevertheless, good reason for believing that they would object, because it would destroy the most important link in the chain which the Empire has forged around the world, and the secession of Canada would be biologically impossible. *Bryce* cannot see any tendency for our union, except possibly some kind of a commercial treaty or league to reduce tariffs. There was one great omission in his argument. He failed to note the source of the population stream which was to fill up Western Canada. It might have been surmised that the easiest route would be the one chosen, and that the teeming masses in the Northwestern part of the United States would flow into the land carrying American citizens with annexation ideas, and that there would have been an attempt to repeat the history of Texas. There is one insuperable difficulty in the way of such agitation, and that is, it can have no practical basis, because the form of government and the assured rights of the individual are almost identical on both sides of the border. The Canadian Americans have nothing to fight for. We are expanding into Canada, as individuals, not as a colony. It seems safe to predict no closer political union than we have stated until we reach the time when the United States and Great Britain will form an indissoluble union by the very force of circumstances.

As to expansion southwards, *Bryce* was inclined to think that the disintegration of Mexico would be piecemeal after the manner of her loss of Texas and California. He bases this opinion on the fact that the natives have proved themselves wholly unfit to develop the country and that American energy and capital are already flooding the land, developing mines and agriculture, and will demand protection of the home government. So that slice after slice of this land will come into the union until we reach Panama. He thinks that we may even go on down the coast,

bit by bit, until we have absorbed all the country. As to the form of union, he strikes the keynote when he states that the basis of our government is political equality and that there can be no political equality with such people as the Mexicans, who have shown such utter inability to understand or use our political birthrights. Therefore, the union will have to be in the nature of dependent provinces.*

## LATIN REPUBLICS

In regard to the West Indies, *Bryce's* prediction was untrue, in that he stated that the necessity for excluding their products would exclude the Islands. He failed to realize that there could be tariff barriers between the American democracy and any territories belonging to it. That was a feature of our Constitution he did not understand. So the acquisition of Porto Rico as foreign territory was undreamed of. He could not conceive of the fact that the Constitution enables the United States to acquire territory which must be governed by the President, through the Army, until Congress provides for it, and that there is absolutely no check upon Congress, which can provide in any way it sees fit. The plunge has been taken. The system is successful. It does not injure us because it is commensalism for the good of both the United States and Porto Rico. This will be the rule in regard to every country south of us. When our mutual interests demand it, they will ask us to take charge and we will do it, and in each case invent the machinery by means of which we will make them all prosper at the same time benefiting ourselves. Aryan brains will make all of tropical America flourish, just as they made Egypt flourish. If our

* "One finds in the United States, and of course, especially in Arizona, New Mexico and Texas, many people who declare that Mexico will be swallowed, first the northern provinces, and the whole in time. It is manifest destiny, and the land and mining-claim speculators of these border lands would be glad to help Destiny. But the general feeling of the nation is strongly against a forward policy, nor has either party any such interest in promoting it as the Southern slave dealers had in bringing in Texas forty-five years ago. It cannot, therefore, be called a question of practical politics. Yet it is a problem which already deserves consideration, for the future in which it may become practical, is not distant. It is a disquieting problem. The clearest judgment and the firmest will of a nation and its statesmen cannot always resist the drift of events and the working of natural causes."

present system in Porto Rico proves injurious to either side it must be modified, or both will suffer.

*Bryce* correctly forecasted the fate of the Hawaiian kingdom. He explained why our safety would not permit any control by a European power, and yet he saw the unfitness of the native rule and predicted the alternative of an independent republic or annexation to the United States, both of which came true within nine years. Perhaps his prediction brought it about sooner by stiffening the backbones of the Americans in the Islands.

As to the extreme of South America, he strikes the modern scientific law. ". . . Ecuador, Peru and Bolivia, for which the Spaniards have done so little, and which can hardly remain forever neglected, will one day become far closer with the United States than with any European power." The future, then, of all America from Cape Horn to the North Pole, is to be one huge organism, composed of separate organs all living a commensal existence, mutually dependent upon each other, the brain being located in the colder parts of the United States.

Mexico may not be taken up piecemeal, as *Bryce* suggested, but assisted by us to remain a separate organism, beneficial to us. Natural law has taken this course in Egypt, Malta and wherever Anglo-Saxons have gone. All of the West Indians and Latin Republics may exist for a long time, autonomous, but they will demand our help to make them prosperous. They will be wholly dependent upon the advice of our agents and ministers, even if it be controlling advice, backed by American troops. No South American republic need ever dread the possibility of losing its life, as they will all be given a new lease of life, for they are dying as republics, if not already dead—but the new life will be something better. If they want it, they can become citizens of the United States—and every one of them capable of it will be given a vote—even if they call themselves citizens of the local State just as we call ourselves citizens of our local sovereign States.

## THE AMERICAN PROTECTORATE

The national platform of the democratic party once stated that if there is any land where a white man cannot live permanently, it should not be a part of the territory of the United States, and this paper shows that if this statement is true we are to vacate almost all of the Southern part of our own country and most of the West. If by white men is meant blonds, then we must give up nearly all of it. Contrary to this we must hold every land useful to us whether we can live there or not. Cuba is necessary to us, and yet few Americans can live there. For every American who migrates to Cuba there were fifty Spanish emigrants in 1904, because the climate is best for Mediterraneans.

As a matter of fact, the American Protectorate of all "independent" nations of the Western Hemisphere, is nearly a century old already, for it had its birth with their "independence." In 1823, *John Quincy Adams* announced the protectorate over Cuba, and that we would not permit its transfer to any other power. *Henry Clay* and dozens of other statesmen have voiced the same policy. Spain, otherwise, would have lost control long before she did. The Monroe Doctrine merely stated what had long been a fact, and the world has acquiesced. The Cuban protectorate is slowly evolving into a closer union—indeed, the policy has been announced to the world that another failure of the Cubans in government will be the last. But Cuba as a nation will not disappear. It cannot coalesce, for it is as different from us as the liver differs from the pancreas, consequently its separate existence as part of the larger organism is the only possible result. The same applies to all the republics of South America, which will retain national existence, first as commensal organisms and then as organs of a whole.

Expansion in the Pacific is of the same nature. The fear of the Filipinos that they will lose national existence is absurd—they have been given a nationality they did not possess under Spanish control, and our own safety demands the preservation and increased prosperity of that new organism we have created. It is merely an item in the growth of a world nation. The flood

of recent books and articles on the subject of imperialism is due to the fact that this world-welding evolution has progressed to a tremendous extent in both hemispheres.

As every expansion has resulted in bloodshed, we have no reason to doubt that future ones will be equally painful. Modern diplomacy can and will prevent some of these wars, but as they are merely the clashes of natural forces over which we have no control it is foolish to think we can prevent them entirely. Public discussion of the facts will go a great way toward peace, yet after all is said it is a matter of force. The trouble in the Pacific was to be expected, and if we are not able to protect ourselves, it is expecting the Japanese to be more than human to refrain from driving us out of her sphere of influence, and if the Japanese are not strong, American aggression will be the natural course of events. The two organisms—Japan and America—are in contact now, and it is to be hoped that the pressure of expansion of each will not cause invasion of one by the other. There is one fact which will probably prevent war and that is the realization by Japan that the conquest of a Christian land by a non-Christian nation, will not be tolerated by Christendom any more than the conquests of Greece by the Turk. Luckily, the best brains of each nation, though preparing for defense, are exerting themselves to the utmost to create a cordial friendship which will result in coöperation rather than cutthroat competition. The two nations must inevitably become parts of one whole, instead of antagonistic independent organisms.

The military conclusion of all this is, that from now on, for an indefinite time, perhaps always, the regular army will be occupied in governing the tropics. The sooner we enlarge it and prepare it for this purpose, by teaching anthropology and tropical subjects in civil and military schools, the better it will be for the nation. The troops must be selected in reference to their stature, color, and ability to stand the climate, for to send others is next to murder. Eventually, we must employ native troops, as Great Britain is doing in every part of the world. The time is now ripe for organizing a Filipino part of the regular army, with native soldiers, native officers in the lower grades, and white officers from captain up, but as in India, no Aryan must ever be

placed under the control of a Malay or disaster will result. The native officer must be in a class between the native soldier and the lowest grade of white officer, as in India, where each native regiment is thus supplied with about ten controlling white brains. The present plan of sending unfit troops there for the maximum safe period—two years—is merely a temporary makeshift until a more natural system is evolved.

# CHAPTER XXXII

## FUTURE POPULATIONS

FUTURE DENSITY—ESTIMATES OF THE REMOTE FUTURE—EXHAUSTION OF RESOURCES—INCREASES CANNOT BE PREVENTED—THE WORLD'S POPULATION—FUTURE TYPES OF MAN.

### FUTURE DENSITY

The density of populations cannot be predicted for an extended period because the factors are so numerous and variable. Nevertheless, the changes are never abrupt and it has been possible in the past to make fairly accurate predictions for fifty years. *Elkanah Watson* made such a calculation in 1815, and his figures are quoted by *Robert Hunter* in his work on "Poverty," page 359, from the "Report of the Industrial Commission," Vol. XV, 1901. Unforeseen changes in civilization rendered these predictions wide of the mark after 1865.* In 1830 another estimate was made as to the conditions in 1880, and published in an almanac in 1833. I remember reading this in 1884, and was astounded at the accuracy of the prediction.

We can now calculate what the population will be in 1950, but later conditions are beyond our ken. Most of the predic-

| *Year | Population | Watson's Estimate | Foreign Immigration for the Decade |
|---|---|---|---|
| 1790 | 3,929,214 | ..... | ..... |
| 1800 | 5,308,483 | ..... | 50,000 |
| 1810 | 7,239,881 | ..... | 70,000 |
| 1820 | 9,633,822 | 9,625,734 | 114,000 |
| 1830 | 12,866,020 | 12,833,645 | 143,439 |
| 1840 | 17,069,453 | 17,116,526 | 599,125 |
| 1850 | 23,191,876 | 23,185,368 | 1,713,251 |
| 1860 | 31,443,321 | 31,753,824 | 2,598,214 |
| 1870 | 38,558,371 | 42,328,432 | 2,314,824 |
| 1880 | 50,155,783 | 56,450,241 | 2,812,191 |
| 1890 | 62,622,250 | 77,266,989 | 5,246,613 |
| 1900 | 75,559,258 | 100,235,985 | 3,687,564 |

tions have ignored the fact that the percentage of increase lessens as the density increases. For instance, the population in 1900 would have been 100,000,000 if the rate of thirty-five per cent. per decade had continued after 1860, but that rate has been steadily diminishing until it is now somewhere in the neighborhood of sixteen. The safest plan, then, is to draw a curve of the percentage decennial increases and continue it into the future. From this curve we can calculate the total decennial increases and total population, and construct two more curves, which must not show abrupt changes of direction. Such a method gives us the following figures:

| Year | Continental Population | Decennial Increases | Percentage Decennial Increases |
|---|---|---|---|
| 1790 | 3,929,214 | ..... | .... |
| 1800 | 5,308,483 | 1,379,269 | 35.1 |
| 1810 | 7,239,881 | 1,931,398 | 36.4 |
| 1820 | 9,638,453 | 2,398,572 | 33.1 |
| 1830 | 12,866,020 | 3,227,567 | 33.5 |
| 1840 | 17,069,453 | 4,203,433 | 32.7 |
| 1850 | 23,191,876 | 6,122,423 | 35.9 |
| 1860 | 31,443,321 | 8,251,445 | 35.6 |
| 1870 | 38,558,371 | 7,115,050 | †22.6 |
| 1880 | 50,155,783 | 11,597,412 | 30.1 |
| 1890 | 62,947,714 | 12,466,467 | 24.9 |
| 1900 | 75,994,575 | 13,046,861 | 20.7 |
| 1905 | *82,567,998 | ..... | .... |
| 1910 | 89,195,000 | 13,200,000 | 17.4 |
| 1920 | 102,396,000 | 13,200,000 | 14.8 |
| 1930 | 115,300,000 | 12,900,000 | 12.6 |
| 1940 | 127,500,000 | 12,200,000 | 10.6 |
| 1950 | 138,850,000 | 11,347,000 | 8.9 |
| 1960 | 148,850,000 | 10,000,000 | 7.2 |
| 1970 | 157,600,000 | 8,780,000 | 5.9 |
| 1980 | 165,000,000 | 7,400,000 | 4.7 |
| 1990 | 171,000,000 | 6,000,000 | 3.6 |
| 2000 | 175,500,000 | 4,500,000 | 2.6 |

The following estimates of *Mr. C. S. Sloane*, Geographer of the Census Bureau, have been kindly furnished me by *Mr. W. S. Rossiter*, the Acting Director:

* Partly estimated. † Probably defective.

| Year | Bureau of the Census Method | Decreasing Percentage of Increase |
|---|---|---|
| 1910 | 89,135,413 | 90,965,506 |
| 1920 | 102,276,251 | 107,976,056 |
| 1930 | 115,417,089 | 127,087,818 |
| 1940 | 128,557,927 | 148,311,484 |
| 1950 | 141,698,765 | 171,596,387 |
| 1960 | 154,839,603 | 196,821,056 |
| 1970 | 167,980,441 | 223,785,541 |
| 1980 | 181,121,279 | 252,206,305 |
| 1990 | 194,262,117 | 281,714,443 |
| 2000 | 207,402,955 | 311,857,888 |

The Bureau method is the assumption that the increase each year will be one-tenth of the total increase of the previous decade. It is useless to estimate population as far ahead as 2000, for new factors may bring it to a standstill or even diminish it. Nevertheless, the practical agreement as to population in 1950 shows that we are now in a critical period when the additions to the population are diminishing. The decennial increase which was only 1,333,000 in 1790, and gradually mounted to 13,000,000 in 1900, will be 11,333,000 in 1950, and the decennial percentage increase will have dropped from thirty-five and one-tenth to seven and two-tenths. That is, the facts show that the phenomenal increases, due to the undersaturation of the country, are already a thing of the past. Indeed, *Mr. Rossiter* reports* that in 1905 some parts of the United States, Iowa, for instance, had actually less population than in 1900. In 1908 there was such a check to immigration and stimulus of emigration of the aliens that there were times when the outflow exceeded the inflow, and the net immigration increase for the year ending October 31, was only 6,298.

The State Censuses of 1905 have been studied by *J. F. Crowell*,† and he has discovered a general tendency to arrest of population increase, with here and there remarkable decreases. He shows that it is a phenomenon in both agricultural and manufacturing communities, in none of which has the increase of five years been what was expected.

* The American *Review of Reviews*, July, 1906.
† *Science*, December 29, 1905.

## ESTIMATES OF THE REMOTE FUTURE

The population beyond 1950 depends entirely upon the position we are to occupy in the future world nation, and, of course, no one knows what that is to be. If we are to sink into the position of a feeder for the densely packed rich and brainy masses in Northwestern Europe, then our population cannot be very great, but if we are to become a manufacturing nation ourselves, with world markets, the limit is merely that of the available food, and that is not enormous. The mistake was always made of overestimating our growth, and there is good reason to suspect that even the above conservative estimates are excessive. It is difficult to see how our high-priced labor will permit us to make things cheaply enough to compete with Europe, and even if we did compete successfully, it is not quite clear that the agricultural advances of forty years will produce food for 55,000,000 people more than at present, when 10,000,000 are on the verge of want, if not actually underfed. Our population in 2,000 A.D. may be far less than 175,000,000, but having in mind the errors of *Malthus* who could not conceive of the present supersaturated masses of England, we are not safe in denying the possibility of even the 400,000,000 which some enthusiasts predict for the next century or two. Our density is now twenty-eight per square mile, but 400,000,000 would make it about 133 per mile, which would cast into the shade the conditions found in India, apparently an impossibility without food importations, and yet it is not at all impossible for Siberia, for instance, to supply the food, if Germans and Englishmen did not outbid us, as they seem destined to do.

The 2,000,000,000 of population, predicted by *Professor Pritchett** would be nearly one man for every acre of ground, including mountains and deserts. We support fifteen people for every eighty acres of cultivated farm land. Less than half our land is in farms, and less than one-fourth is improved, but even if two-thirds could be made productive, 400,000,000 of people would require us to support twenty-five from every eighty

* *Popular Science Monthly*, 1901.

acres. Likewise, the time when our farms are to be divided up is very far off. Less than half our population is rural, and if the average farm is to be one-half the present average we will no doubt accommodate 40,000,000 this way. Eastern farmers generally agree that the best-paying farms are not larger than eighty acres, but this size is far off, because our average farm which, in 1850, was 202 acres (thirty-eight per cent. improved land), had only come down to 146 acres in 1900 (fifty per cent. improved). Such utilization of land now unproductive is a matter of centuries, on account of the expense of reclaiming swamps and constructing irrigating works, and even then we may have to leave immense areas in forests.

It is known that in prehistory Europe was one vast forest which gradually melted away as man increased in numbers. Two thousand years ago Gaul was still half forest, and Germany probably more than half. A thousand years ago, nearly all the mountains were still covered with trees. The process of deforestration still goes on, for if more food can be obtained from the land, the trees must perish. That is, although primitive man was a forest dweller absolutely dependent upon the woods, modern man gets his living elsewhere, and communities of men are antagonistic to communities of trees. Yet the antagonism is not complete—there is still a mutual aid, for if deforestration is carried too far, productiveness is diminished and man melts away. Barren areas now devoid of population, were once teeming with men. The soil made by forests was very fertile, but when deforestrated it had no protection and in time was washed away. For the preservation of water supply, wood supply and prevention of disastrous floods and landslides, it is necessary to keep a certain amount of land well forested. Perhaps that will always be a necessity, though, of course, there may be ways found in future ages of substituting some smaller and more productive plants for trees. But in the meantime for the highest density of population a certain percentage of forest is needed, and the time when an enormous population can live where present forests exist is very far off.

## EXHAUSTION OF RESOURCES

It does seem that the time is not so far off when our population must increase very slowly, if at all. There is a possibility of decreases from even the present numbers, for we are so rapidly using up the resources which support the factory population. This is the reason for that tremendous movement now under way to conserve our natural wealth. At the increasing rates of consumption it has been predicted that our timber will be exhausted in twenty years, and our gas, petroleum and anthracite in fifty. The copper mines must be exhausted in time, and the end of the iron ore is already in sight, for it is not inexhaustible, as we once thought. As so graphically described by a recent writer, Pittsburgh may go the way of Tyre and Sidon, which died of prodigality in using up their resources. There is an enormous waste, but even if we save this the end is only postponed. Similarly, we waste enormous amounts of food, but if we saved and utilized it, the proportionate increase of population would be very small.

Soft coal will also go eventually, but that may not be such a disaster, for by that time the utilization of water power may have progressed sufficiently to give all the light, heat and power needed by an enormous population essentially agricultural. Of course, the high prices due to diminishing supply will check consumption, and the end will be further off than present rates indicate, but that, too, necessitates a reduction of population. We are now like a spendthrift, using his capital in an extravagant manner, but when he spends it all, the population of his house must diminish. It must also be noted that Europe is already buying our wood, oil, coal and iron, thus aiding in our eventual industrial impoverishment, to the end that we will be merely the plantation from which its people are to secure bread and meat and the raw materials for their factories—wool, cotton, tobacco, hides, flax, hops.

The 1900 census shows that we are increasing in numbers faster than the food, and such increases cannot continue if we are to export food, for it will all be needed by the factory

population. It is estimated that each person uses seven bushels of wheat a year, and, at that rate, 200,000,000 will require double our present crop. It is therefore probable that if we increase beyond 150,000,000 in the next five decades it will only be by reason of wheat importations from Canada and Siberia, a rather unlikely reversal of the present trade.

## INCREASES CANNOT BE PREVENTED

It is proper to ask if increased population is desirable. In 1772 *Benjamin Franklin* said:* "I thought often of the happiness in New England, where every man is a freeholder, has a vote in public affairs, lives in a tidy, warm house, has plenty of good food and fuel, with whole clothes from head to foot, the manufacture perhaps of his own family. Long may they continue in this situation." This is the picture of brainy men in a typical Aryan democracy, in a country far from saturation. The tremendous increase of population has ended the condition forever.

The awful density of populations in large cities is difficult to imagine—a density so great that three days' interference with the streams of food pouring in results in tens of thousands of deaths. There are no foods stored up—cannot be—and millions literally live from hand to mouth.†

What is the use of overpopulating the land this way, and then feverishly increasing the food supply in a vain effort to stop starvation? Why should Chinese women bring forth so freely if 10,000,000 are to die every few years because food is scarce? What's the use anyhow of nations increasing in numbers, when, if they remained fewer, as in France, there would be more wealth and comfort per person? Why do we want a million immigrants

* *Science*, June 1, 1906.

† In New York City alone, in 1906, an immigrant arrived every forty seconds, and a passenger train every fifty-two seconds; a criminal was arrested every three minutes; a birth occurred every six minutes and death every seven minutes; a marriage every thirteen minutes and a divorce every eight and one-half hours; every forty-two minutes a business started and every seven hours one failed; there was a fire every forty-eight minutes and a ship left the harbor every forty-eight minutes; every fifty-one minutes a building was erected, and every one and three-fourths hours there was a fatal accident; every eight hours there was an attempt at murder and one-sixth succeeded (a murder every forty-eight hours), and every ten hours there was a suicide.

a year to share our good luck? Why do we want the world's population to increase, if it is only to multiply the number in distress? The number on the verge of want is now ten times the whole population when *Benjamin Franklin* said that no one was in want. The pessimist long ago answered the question. He said that for many, life was not worth the living, and that it is a crime to thrust more and more babies into the painful struggle. We will be far happier, they say, if we are far fewer and far richer. One writer* even stated that increased population is a curse. At one time, in 1908, New York City had 150,000 men out of work and Berlin 40,000—burdens on the efficient. If a calamity had wiped out 190,000 workers, there would have been 190,000 jobs for the idle—the least fit, by the way.

In answer it may be said that as man is an animal, his instinct is to increase and spread to the limit of the food supply, and all discussions as to its good or evil results or as to the possibility of changing the course of events, are futile. We cannot change natural laws; we can only watch and record their operation. Nations will always increase with the foods, because our existence depends upon the struggle for it. Things are not getting worse because there are more in distress than in Franklin's time. The proportion in poverty is getting less all the time, and conditions are infinitely better than in the time of *Malthus*, in spite of the tremendous increases of population he dreaded. There are now 75,000,000 people in a happier, more prosperous condition than in Franklin's time, and the good far outweighs the evil.

Migrations must continue until there is no advantage to be gained by them in the way of enhanced prospects of survival. Modern transportation has only changed the purpose from a search for homes to a search for wealth About one-twentieth of the people of the world live in the United States, and it produces one-fourteenth of the world's cotton, one-quarter of its wheat, one-half of its tobacco, one-half of the pork, one-quarter of the cattle, one-fifth of the fish, one-third of the lumber, one-third of the coal, one-third of the manufactures, one-quarter of the gold and silver, one-quarter of the iron and more than one-half of the petroleum and copper. The stream will

* James Cotten Morrison, "The Service of Man," p. 13.

pour into the United States to share in this wealth, and we cannot possibly prevent it, nor can we prevent them carrying it back to Europe. There also seems to be a general tendency to migrate to a place where there are greater average earnings, irrespective of the wealth and density of population, as shown in the following table:

| Nations | Wealth in Millions of Dollars | Annual Earnings in Millions | Average Annual Earnings per Money Earner | Average Inhabitants per Mile |
|---|---|---|---|---|
| Australia | 5,165 | 1,032 | 580 | 1 |
| United States | 78,480 | 14,957 | 473 | 25 |
| Great Britain and Ireland | 56,669 | 6,830 | 406 | 343 |
| Canada | 4,814 | 878 | 363 | 1 |
| France | 46,512 | 5,755 | 333 | 187 |
| Belgium | 4,742 | 869 | 296 | 599 |
| Denmark | 2,429 | 288 | 290 | 165 |
| Switzerland | 2,362 | 338 | 278 | 205 |
| Netherlands | 4,224 | 595 | 275 | 401 |
| Germany | 36,650 | 6,163 | 258 | 268 |
| Argentina | 2,957 | 456 | 254 | 3 |
| Sweden and Norway | 3,792 | 682 | 212 | 24 |
| Total Europe (Ex. Turkey) | 246,434 | 34,281 | 207 | 103 |
| Spain | 11,424 | 1,310 | 179 | 94 |
| Portugal | 1,973 | 307 | 175 | 135 |
| Austria Hungary | 21,658 | 3,394 | 164 | 180 |
| Italy | 15,168 | 2,093 | 160 | 293 |
| Danubian States | 4,025 | 706 | 137 | 110 |
| Greece | 1,066 | 134 | 125 | 97 |
| European Russia | 30,840 | 4,819 | 100 | 52 |

These streams will cease when the population densities are so equalized that it will be just as easy to struggle for existence at home, importing foods if necessary, and that means a world organization of specialized nations or groups, some densely packed in limited areas and the rest spread over the farms.

## THE WORLD'S POPULATION

The world's population cannot increase faster than the food. The great increases of the last century are mere temporary phenomena due to the increased food supply from the Western

Hemisphere and Australasia, and, after all, they constitute but a fraction of the world's population which has had a very slow increase.

The *World's* Almanac for 1903 says that the population of the world at the time of *Augustus* was only 54,000,000, notwithstanding the density existing in spots. By 1810 it had only increased to 682,000,000, and is now nearly treble that.*

The future increases, of course, will be enormous because of the possibilities of more food production, but the rate of increase will be small because the rate of food increase is not very great. Intensive farming can only proceed gradually, and where there are intelligent farmers. Unhappily, history shows that intelligent types leave the farms, which, the world over, are in the possession of the lower layers of society; the ones least able to profit by advanced scientific methods. The sea will eventually supply an enormous quantity of vegetable foods, now considered weeds, and fish will also be planted yearly like farm crops. Even the huge amounts of nuts now going to waste, need not wait the thousands of years necessary for us to develop the organs to digest them as a staple article, for machinery can extract their nutritious parts for us, but these advances must be slow.

The chemical production of food is another delusion, for even supposing we would have the fuel or energy, or could utilize that of the sun, the raw material must come from the earth. *Prof. Ira Remsen*,† speaking of the synthesis of sugar, starch, etc., says, that this requires substances which are themselves the products of natural processes. "*Emil Fischer* has, to be sure, made very small quantities of sugars of different kinds, but the task of building up a sugar from the raw material furnished by nature —that is to say from the carbonic acid and water—presents such

| *Year | Authority | Millions in the World |
|---|---|---|
| 1810 | Almanach de Gotha | 682 |
| 1828 | Balbi | 847 |
| 1845 | Michelot | 1,009 |
| 1874 | Behin Wagner | 1,391 |
| 1886 | Levasseur | 1,483 |
| 1905 | (estimated) | 1,600 |

† *Science*, January 1, 1904.

difficulties that it may be said to be practically impossible. When it comes to starch and the proteids, which are the other chief ingredients of foodstuffs, the difficulties are still greater. There is not a suggestion of the possibility of making starch artificially, and the same is true of the proteids."

Nor can we use all the 28,000,000 square miles of fertile land, much of which will always be unproductive, because parts must be reserved for factories, storehouses, habitations, forests, roads and reservoirs. The 14,000,000 miles of steppes will only be partly useful, the 4,000,000 of deserts still less, and the 4,000,000 of polar regions not at all. Then much must be reserved for cotton and other necessaries. Of course, occasionally an invention releases some of the land, the quantity of indigo now manufactured from coal tar, for instance, would require 390 square miles of land if the plant were still used. The increasing consumption of alcohol throughout the world, destroys millions of bushels of grain as food, for very little of the alcohol is oxidized in our bodies. Universal temperance would increase population to the extent of this available food, but unhappily alcoholic consumption is on the increase.

When will the world be full? This question is often asked by those who do not understand the slowness of all these processes. As we will always be finding new ways of producing food, it is evident that the world never will be full, and its total population will always increase, though at a constantly decreasing rate. Even the exhaustion of our coal and iron will not alter the problem, for substitutes will be found. Ships will merely use stored power from the sun's rays or waterfalls; they won't disappear with the coal any more than they were created by coal. *Sir William Crooke's* statement that we would reach our limit in 1931 has been proved to be absurd.

## FUTURE TYPES OF MAN

The type of man who will constitute the future social organism, though a fascinating speculation, cannot possibly be predicted. Of course, we know that the production of more easily digested food, or even predigested, gives the advantage, in the

struggle for existence, to those who are not burdened with the expense of producing and maintaining large digestive organs. The future man will, therefore, have fewer teeth, smaller stomach, shorter intestines, and so on, but the evolution of these changes requires tens of thousands of generations. The complete disappearance of the organs and our parasitic dependence upon blood transfusions from domestic animals after the manner of *Well's* fanciful Martians, would require a period of time longer than that given by the geologists to the earth as a place fit for any kind of life, so that such discussions are as bootless as the topic of man's final disappearance from the earth. The only thing we know is that man must evolve types fit for the tremendously changed conditions of life. Present mental and physical types could not exist even in the Utopia now dreamed of by Socialists. Organisms and their units both change with increasing organization. Man will disappear by evolving into a different creature.

Yet the types in the groups of the immediate future can be predicted, for the process of their production is well under way. The increased variation in brain power, for instance, is a vast change from the conditions of prehistory, when all men were equal because all had to do the same kind of work. It is an invariable rule that when a species develops a part or character, markedly different from the homologous character in the nearest related species, that character immediately proceeds to vary, so that we can confidently predict that future men will be of every conceivable grade of intelligence from the stupid fellow only able to wield a pick-axe under a foreman, to men having genius higher than any we now conceive possible, each limited to a special sphere of intellectual power. Primitive men, by the way, and present savages, have a high degree of intelligence, but it is of a generalized type unfit for the specialties of civilization. We are apt to forget how much ability it requires to make one's living in a rude culture without tools. People who worry about the decay of races should remember that somehow nature has produced higher types than Greece or Rome ever dreamed of, and by the same processes, in the future, exceptional variations will appear with genius beyond our present comprehension.

Physically, man will not differ from present types for a very long time. The chapters on acclimatization and man's evolution show that nature has been an enormous time creating the present types from the first man. Each is fitted to his zone, and in that zone we will find that type, many thousands of years hence, but from the interminable streams of migration we will find intruded specimens everywhere, even though they die out, but this extinction of displaced types will be very slow when we learn how to avoid the causes.

Above all else, future populations will be so dependent that war will be impossible, and the prophet was right in predicting the time when our swords will be beaten into plowshares.

Natural law governs the world and all its inhabitants.

THE END

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