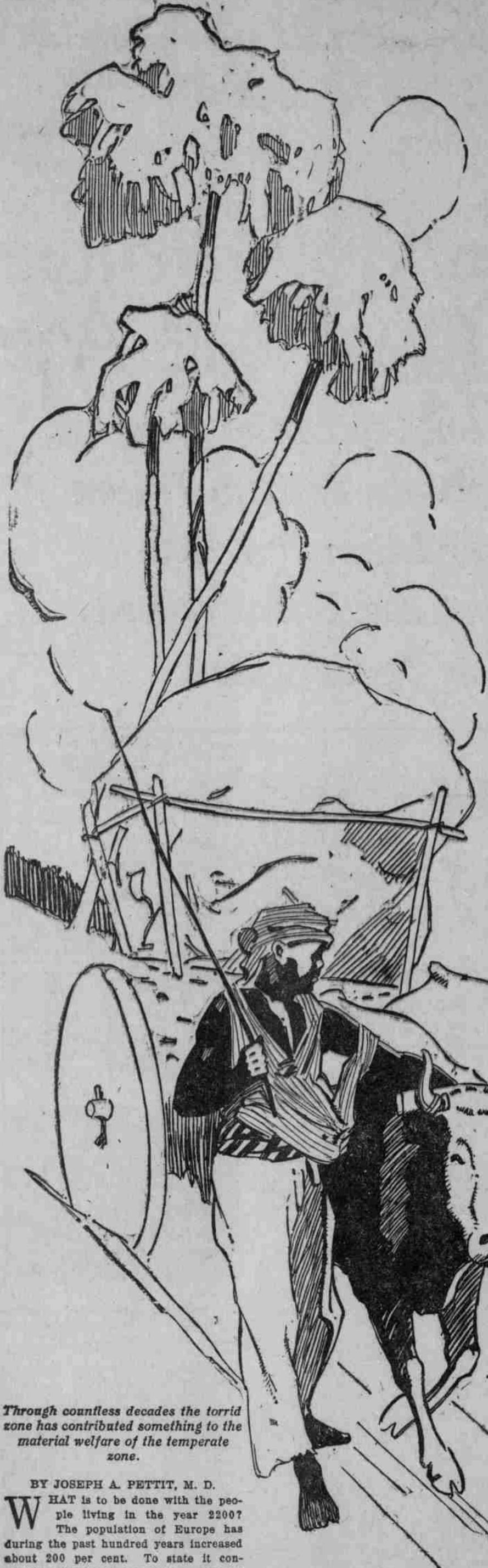


How Are We Going to Live 200 Years From Now?



Through countless decades the torrid zone has contributed something to the material welfare of the temperate zone.

BY JOSEPH A. PETTIT, M. D.

WHAT is to be done with the people living in the year 2200? The population of Europe has during the past hundred years increased about 200 per cent. To state it concretely: whereas its population a century ago stood at a little over 100,000,000, it has now mounted to over 300,000,000. Applying the law of ratio (based upon an examination of the percentage of increase during the past four centuries and the increased longevity of modern civilization) we may calculate that the next hundred years will bring the population well up toward a billion. Then what? Will the people be able to sit down, or will they have to stand up? Will they go hungry, or will they be fed, or clothed, or provided with shelter? And if the percentage ratio continues for 200 years beyond that, how will the acres of Europe stand the strain of maintaining 2,000,000,000, or more?

We will dismiss the hypothesis of emigration; for statistics reveal the fact that emigration has been influencing the population of Europe to a maximum degree for the past 100 years, and that, in spite of an emigration of some 30,000,000, its population has climbed. What then will retard this overwhelming ratio of increase? Will future wars do so? There seems to be a common impression that wars tend to shrink the population of countries to an enormous degree. Let us consider the statistical reports of the recent war. During a period of over four years, a majority of the population of Europe were opposed to one another in the most deadly conflict recorded in history. The machinery used for the de-

struction of human life during this period of strife surpassed in ingenuity and efficiency that of all preceding wars. The size of the armies actually engaged in conflict cannot be paralleled on the pages of history. Yet, notwithstanding the vastness of the armed forces pitted against one another, and the fiendish ingenuity of their engines of war, there were not over 7,000,000 of men slain during the four years and three months that this conflict endured. Viewed with reference to percentage ratio, this figure looms large and portentous; but viewed with reference to the total population of the countries engaged, it shrinks to importance. To speak specifically, only 2 per cent of the population was killed, or what amounts to only 1/50 of 1 per cent per annum. The birthrate, which existed during the war far exceeded the figures of loss. Has, then, Europe's population been actually lessened by the war? We are forced to admit that it has not. Neither does it seem to have been definitely retarded. The majority of the wounded—12,000,000 (comprising about all only 4 per cent of the population)—have returned to some peaceful occupation. The prisoners of war—about 2 per cent of the population—either have returned to their former occupations, or soon will, amply able to do their part in the fecundity of the European races. So that we conclude that while the ratio of population increase has been momentarily

slowed down to some slight degree, there continues a prodigious numerical progression of the human race.

It is of interest to consider also how the population of the United States has been affected through the loss of life during the world war. The actual war losses amounted to about 1-13 of 1 per cent of the total population. Nor was this total seriously affected by the influenza epidemic, the worse scourge which has ever swept over the United States in many years. The death toll was less than 1/4 of 1 per cent—figures which may be of interest when compared with the black plague, which claimed one-third of England's population during three successive waves in the 14th century. An examination of the population of the United States during the last half century reveals that it has climbed by leaps and bounds—that it has, in fact, grown 120 per cent. The last census of the United States shows that the population of this country has increased 21 per cent for the ten years ending in 1910; and that the increase for the past ten years was 15 per cent. And this is despite the fact that the big influx of emigration has been shut off during half of this period and that the influenza epidemic and the war have claimed their relatively (from a percentage standpoint) meager toll. Our population now stands at about 105,000,000. If the same percentage of increase that has governed the population of this country during the past 50 years is maintained, and since the normal increase will beyond doubt be swelled by immigration from over-crowded Europe, it is reasonable to assume that the United States will have by the year 1975 no less than 200,000,000 of inhabitants.

The figures which are given in reference to the decrease of birth rate among the American people will not in reality affect the increase in population, because relatively few babies die now as compared with 20 years ago. In other words, the American mother of a quarter of a century ago might bear five children, but on the average would not raise to manhood any more than the American mother now, who bears only three children and loses none through the diseases of infancy. A recent press dispatch speaks of an Oregon woman dying at the age of 98. At this particular time she had five living children, 25 living grandchildren, 42 living great grandchildren, and one great great grandchild. She and her husband may be accredited with having added 73 to this country's population. A careful check of other families might prove this to be no exceptional record.

Wars and disease do not seem to have had even a declaiming influence on the population of the civilized world. Nor does there appear to be a decline in the reproduction of the race. And so, when our great grandchildren sit by their fireplaces as grandfathers themselves, it is not improbable that they can boast of

new fields of production must be found. And why not the tropics? Through countless decades, the torrid zone has contributed something to the material welfare of the temperate zones—hides, rubbers, coffee, drugs—exclusive products which have gradually become an intimate and necessary part of the life of the temperate zones. The tropics, broadly considered, contain both a minimum population and a potentiality for maximum productivity of those substances essential for the food and raiment and material comfort of human beings. This productivity exists potentially in the superlative degree, and yet is actually developed in only a minimum degree. And why? The answer is found in the very essential particular in which these two regions are divergent energy. Men of the energetic zones have had their ventures into the luxuriant tropical regions, but mainly for adventure, for temporary sojourn, for experiment, or for speculation. It has stood as a self-evident truth that they would never be able to accomplish the fact of permanent existence in the enervating climate and unhealthy environments—that it took the native, who through the advantages of birth and inheritance and gradual adjustment had become immune to tropical diseases or enured to tropical hardships, to bear up under the debilitating climate and its attendant diseases. But medical knowledge has gone far to overcome these difficulties and to conquer these terrors. Malaria, the most prevalent dis-

ease of hot climates, is a curable disease by virtue of certain medicines, and it has become a preventable disease through the control of the mosquito pest. Typhoid fever, as has already been said, is preventable through both inoculation and sanitation, as is also cholera; while yellow fever, which is still difficult to cure, can be absolutely prevented by the control of the type of mosquito that has been proved to be the only carrier of the germ of this particular disease and the only means of its transmission to man.

The failure of the French to succeed in constructing the Panama canal was not so much because of failure of finance or lack of inadequate machinery, as it was because of the fact that medical sciences 30 years ago had not solved the problem of tropical diseases. Men died by the hundreds of yellow fever, of malaria, and of cholera. It has been estimated that every tie laid in the construction of the Panama railroad represented a human life. During the American construction of the present Panama canal the writer spent some weeks in the canal zone. There was not a single case of yellow fever in any of the hospitals. Malaria had been curbed to a minimum, and almost all the beds in the malarial wards were vacant. It was possible to sit all evening upon the veranda of the Hotel Tivoli in the American quarter of Panama without being bitten by a mosquito. General Gorgas, heading the medical corps, contributed more to the real solution of the problem of construction of this canal than did General Goethals, heading the engineer corps.

Besides disease, sheer physical discomfort has rendered the tropics disagreeable or impossible for permanent residence for the energetic inhabitant of

the temperate zone. But mechanical devices have done much to contribute to his comfort and to mitigate his distress in such environments. Cooling devices, ice machines, and so on, all have tended to ameliorate the hardships which have hitherto beset those of other zones who have braved the rigors of the heat and other enervating conditions. So with health insured and with comfort in prospect, there seems to be left no real reason why energetic peoples should not take advantage of the tropical soil and climate and its unbounded productivity. And is there not assurance for the future in the fact that the abundance of the products of the most fertile areas of the earth will for centuries feed the peoples of other zones, when they become populated beyond the saturation point and cannot produce sustenance for their own inhabitants?

No one who has not personally come in contact with the tropics can adequately realize its potential productivity. The mere crop a year proposition is unknown there. It is simply a matter of how many weeks or months it takes for a certain crop to mature, and the ground can then be turned over and replanted. The abundance of crop yield per acre is amazing. The variety of sustaining food stuffs which can be grown in the tropics is unlimited.

The hope for an adequate production of food and raiment for future peoples seemingly rests upon the productivity of the tropics, and upon the fact that the utilization of this productivity will be made possible through the development of medical science, thus rendering it a safe and healthful place in which to live and produce human sustenance in a superlative degree.

SCOTLAND YARD'S HEAD BRANDS CLEVER WOMAN SPY AS A MYTH

Despite Historical Romances Growing Out of Every War, Famous Criminologist Says Feminine Espionage Failed Germany in World Conflict.

IMAGINE a war story without a woman spy, imagine a tale of diplomacy, high or low, with a divine creature moving through it, capturing the hearts and souls of all the poor men and extracting from them any state or military secret her curiosity or her evil will brought her to unveil. The woman spy is one of the most settled of beliefs and to suggest that they are not miraculously effective, that they might even be said to do more harm than good, to the side that employs them, would seem to be a heresy that few could be guilty of.

Yet this very heresy, this denial, that women spies are valuable has just been made by the man who by his position is the one who ought to know best. He is Sir Basil Thomson, who as chief of Scotland Yard, head of the British secret service during the war, and one of the greatest criminologists in the world, has made a remarkable record in crime detection. He has been called Sherlock Holmes in real life and it has been said that if it had not been for his efforts, German spies, by their very number and unlimited possession of funds, might have accomplished what the German armies failed to accomplish in the field.

Sir Basil Thomson has just arrived in America and after a bit of looking around has made some very startling statements. One of them that came quite unexpectedly was his declaration that the German system of espionage was inefficient. Accustomed as we have been to the dark tales of diabolical German intrigue this will come as a surprise to most Americans. But most astounding of all is Sir Thomson's declaration that in spite of the power of woman's charms and her uncanny intuition she is far from efficient in spy work.

Sir Thomson concentrated his two heresies in one terse sentence. Speaking of German spies he said, "I knew only two or three good ones; and the Germans made the mistake of using women who are useless for that work."

It is certainly hard to believe it possible that such a statement could be made in all seriousness. By the shears of Dellah, whose spy work deprived the Israelites of their greatest hero, by the charms of Cleopatra, who started by an attempt to spy upon the Roman generals and found it unnecessary since they were perfectly willing to be her faithful servants, by the dirk of Judith, who ended a way by slicing off the king's head, it would seem that the ladies deserve more credit.

So much has the effectiveness of the woman spy been practically an article of faith, that it has passed to a proverb. Almost everybody knows the meaning of the French proverb, "Cherchez la femme," or look for the woman, in case there is a particularly baffling mystery. And novelists, movie producers, stage directors have all served to keep up this belief.

Yet if it is true, and Sir Basil Thomson ought to know, it was surely not until the late world war that the particular wiles of women as spies were satisfactorily guarded against, for history has many records to prove that in the past the woman spy proved herself remarkable, resourceful and serviceable to her employer.

Sir Basil bases his belief in the inferiority of women for this work on the fact that they are not analytically minded. They may be resourceful, in an emergency, through their remarkable intuitive power, he admits, but he contends they cannot lay plans or co-operate in them, since these activities require great analytical power.

Another and more unexpected reason, Sir Basil thinks, is the fact that women are more susceptible to the tender passion. The use of women it has been admitted has always been primarily a sex one to rouse love in the bosom of impressionable young officers, but in this there is always danger, as women are more likely to yield to this lure than men. Male spies have frequently proceeded by

forming an attachment to a woman in the place where they were conducting their activities. Women spies whose duties have been to make men weakly amorous, while successful, have just as often, and even more so, become the victims in their turn and have been rendered useless to the people who employed them. Then again it is said that while a man may subordinate everything to his patriotism, this is not the case with women, whose highest loyalty has always been to love.

The ancient story of Ariadne well illustrates this fact. Some interpreters have declared that when Theseus, who came with the seven youths and seven maidens from Athens to Crete to be sacrificed to the Minotaur, King Minos instead of trying to get political information from the young prince by torture, the usual method, decided to use guile and commissioned his daughter Ariadne to make love to him. But as it happened it worked the other way round. Ariadne fell deeply in love with Theseus and betrayed her father, her country, and all the laws of virtuous womanhood for the Athenian prince.

History offers another tale very like this one. When Cortez, the conqueror of Mexico came with his Spaniards among the Indians a woman who many believe was sent as a spy entered the Spanish ranks and gained the love of the general himself. But it was of no service to the Indians, for Marina, as she was called, became passionately attached to the conqueror and thereafter helped him so much that it has been declared that without her assistance the conquest of this empire in the west would have been impossible.

California Gold Strike Aid to Industry Here.

Oregon Said to Have Taken Dust in Exchange for Produce.

OREGON'S first business excitement came in August, 1848, when a little schooner from San Francisco pulled into the wharf at the village of Portland and began to load all the Oregon products obtainable in exchange for a lot of Mexican produce.

After a cleanup was made of all the available products the captain of the visiting craft announced the discovery of gold in California. Very soon gold dust and states money was rolling back into Oregon in exchange for more Oregon products and so wheat was soon eliminated as the circulating legal tender medium.

It was not long before Oregon was digging as much gold out of the sale of its products as the miners were getting in California. Industries began to get a footing in the state and the demand for workers brought additional settlers to Oregon just as the gold digging operations brought into California.

As one of the results of this development the manufacture of gold coins was started at Oregon City a few months later. The Oregon City mint was the first on the Pacific coast and coined \$58,500 in gold money under the sanction of the United States government. The faith of the government in these early days of the possibility of industrial development in Oregon impressed citizens of the state and resulted in the establishment soon afterward of the nucleus of plants from which present day industry developed.

Much Remains to Be Said.

"Senator, would you be so kind as to tell me in two words just what is behind this Shantung controversy?"

"I'm sorry, major, that I can't oblige you, but when I return to Washington I will be glad to send you a copy of a speech I delivered some weeks ago. It is only 20,000 words in length, but I believe, in the short time allotted to me, that I—ahem—succeeded in showing that the matter calls for—ahem—extended debate."