

From the Advocate of Peace.

Capacity of the Earth for Population.

The Advocate of war have heretofore argued its necessity as a means of preventing an excessive multiplication of mankind. Still it is gravely objected by some to the cause of peace, that it would, if completely successful, come ere long to find the world with a population so dense and superabundant as to occasion a greater amount of suffering than has ordinarily resulted from the ravages of the sword. Such an objection may seem to most of our readers unworthy of notice, but it has been urged by so many men of eminent ability and learning as to justify, if not demand, a passing refutation. The subject opens a wide range of discussion concerning the laws of population, or the principles which regulate its increase or diminution; but without entering at all upon this inquiry, we shall avail ourselves chiefly of some facts collected by a distinguished author, to illustrate the almost illimitable capacity of the earth for the support of population.*

The most populous country on the globe has never approached the limits assigned by nature to the increase of mankind, or the capacity of the soil for their comfortable support. No country has ever been more populous in proportion to its extent than Ireland; and certainly there is none now in existence to be compared to its density. Its population averages two thousand five hundred and forty-five to the square marine league. Now, Ireland contains twelve millions of acres of arable land, and five millions of acres of wastes capable of agricultural improvement, besides two million four hundred sixteen thousand of mountain pasture. Mr. Newerham, a good authority, calculates that an acre of potatoes will produce an average of 22,960 pounds of solid nourishment, and that a person is well fed with six pounds of potatoes in a day. Each person then will consume 2,190 pounds in a year, and an acre will yield food sufficient for ten persons. Supposing, therefore that one third only of the arable land now under cultivation were annually devoted to this crop, they would yield food for 40,000,000—more than five times as many as Ireland now has, and still have two thirds for fallows, or for the production of other kinds of sustenance for man and beast. Nor does this estimate include either the 2,416,000 acres of mountain pasture, or the 4,900,000 acres of waste capable of cultivation; in all, 7,916,000 acres, making the entire surface of Ireland to contain nearly 20,000,000 acres, one half of which, if devoted to potatoes, might support a population of no less than 100,000,000.

Let us next look at England and Wales, both together not equal in extent to some of our single States. They contain 25,350,000 acres in tillage and meadow, besides 3,454,000 capable of improvement, and 3,256,000 of barren wastes. Mr. Young, the well known writer on English agriculture, estimates an acre of wheat to yield on an average one third of the solid nourishment derived from one of potatoes. Supposing then one third of these arable acres devoted to the staple food of the country, and two thirds to the maintenance of animals, and the production of luxuries, it follows that, if the people should live generally on wheat, 25,000,000, and, if on potatoes, 75,000,000 could be maintained without encroaching on the very ample share of two thirds, besides all the wastes, set apart for fallows, for luxuries, and the support of animals. This proceeds on the supposition, that the land shall produce annually three quarters or six bolls a very low estimate, for in the inferior climate of Scotland, eight or ten bolls are considered no extraordinary crop. Nor would this vast addition increase the density of the population, according to the first view, beyond that on the margin of the lake of Zurich, where, with scarce an acre and a quarter to each individual, the comfort and well being of the peasantry exceed that of any spot on the globe. If only one half of the 32,000,000 of acres in England and Wales were cultivated with potatoes, they would, according to the calculation for Ireland, support a population of 160,000,000, more than ever bowed to the eagles of imperial Rome, and some three fourths as many as all the present inhabitants of Europe!

China and Hindostan are generally brought forward as examples of population pressing on the means of subsistence; but a slight survey

will prove that they are now very far from the limits of their capacity in this respect. In the peninsula of India, there are 109,200 square marine leagues, and 101,000,000 inhabitants, only 925 to the square league; while the British Isles contain 2,120; considerably more than twice as many, to the square league. In England and Wales, there are 4,840 square marine leagues; and if they could maintain in ease and comfort, 25,000,000 on wheat, and 75,000,000 on potatoes, it follows that India could support on the former food 500,000, and on the latter, 1,500,000,000. This too proceeds on the supposition, that two thirds of the whole country, besides the share allotted to the support of man, is set apart for the maintenance of animals, or the production of luxuries, and that the soil of Hindostan will yield no more than that of Britain; both of which suppositions are greatly within the truth, since rice is the usual food of the natives, and double and triple crops can be obtained in a year. If devoted to potatoes, or any other crop that would maintain as large a number as potatoes can in Ireland, one half the surface of India alone, might suffice for the support of no less than 6,000,000,000 souls—more than seven times as many as are now on the whole globe!

The superficial area of China, including Chinese Tartary, amounts to 463,000 square marine leagues, and would, if peopled as well as Great Britain, have a population of 971,000,000. If cultivated as the arable land of England might be, it would, on the supposition of only every third acre being devoted to wheat, and all the remainder to fallow, grass, and luxuries, maintain 2,300,900,000 people, and if cultivated with potatoes, or an equivalent crop, no less than 6,900,000,000.

The Ottoman Empire is about nine times as large as the British Isles, containing 825,000 square miles, while the British Isles comprise only 91,000. The population amounting in Europe to 11,240,000, is 470 to the square league; or Asia to 10,548,000, is 180 to the square league; or in Egypt to 3,000,000, is 1800 to the square league, in the cultivated districts on the Nile. If peopled as well as Britain, the whole empire would contain 170,000,000, instead of 25,000,000, and would, according to the foregoing calculations, raise from only one third of the soil wheat enough for 400,000,000, and potatoes sufficient for 1,200,000,000!

North America contains 607,000 square marine leagues, and would, if peopled like the British Isles, have a population of 626,000,000. If 300,000 square leagues, less than half of its entire surface, were cultivated as England in the foregoing view might be, it would yield wheat enough for 4,500,000,000 and potatoes sufficient for 13,500,000,000!

There seems hardly any limit to calculations of this sort. In South America there are 571,000 square marine leagues; and if we suppose only 250,000 capable of cultivation, it would, if as densely peopled as the British Isles, contain 535,000,000 souls, and would raise from one third of less than half the whole surface, wheat sufficient for 1,250,000,000, and potatoes for 3,750,000,000!

The Russian Empire, containing 616,000 square marine leagues, would if only one half be supposed capable of cultivation, and peopled as Great Britain is, have a population of more than 600,000,000, and might, according to the foregoing calculations, raise food sufficient of one kind for 1,450,000,000, and of another for 4,350,000,000!

If these calculations seem overcharged from the fact, that so large a proportion of the globe is composed of mountains or deserts, we reply, that in warm climates men find subsistence to a very high elevation in mountainous regions, which are often peopled more thickly than the plains. Switzerland, though almost entirely mountainous, and most of it unproductive, yet has a population of 1,175 to a square league, six times that of the Asiatic provinces of Turkey; and Italy, though filled for the most part by the Appennines, contains no less than 1,967 to the square league. In Peru a dense population is frequently found in plains or valleys 10,000 feet above the level of the sea; and at this elevation a single valley contained in the time of the Incas 700,000 souls. We should also bear in mind, that agriculture has never yet been carried in any part of the world to the highest point of attainable perfection; that in tropical climates even the coldest months are continually producing food for man; that the same space which will support two individuals on wheat, would in Southern climates feed fifty on banana; that in Ceylon a single tree will maintain whole families for successive generations; nor is it unusual to see the one hundred and fiftieth part of a cocoa tree sold as separate property; that in Egypt vegetation goes on through the whole year, and even as far North as Palestine, the soil which

has borne two crops in summer, yields another of barley in winter; that double crops are universal on the plains of Lombardy, while in the Campagna of Naples a triple crop of vines and wheat annually reward the labors of the husbandman.

It will also be borne in mind that none of the foregoing estimates include the vast resources of the ocean, which alone might suffice for the support of more than all the present population of the globe. But we will bring these speculations to a close, by glancing at the capacity of the whole earth for the subsistence of mankind. Its entire surface contains nearly 200,000,000 square miles; and if we suppose only 60,000,000, or less than one third of the whole, to be dry land, and only one half of this, which is equivalent to 19,200,000,000 acres, to be cultivated with potatoes, or with some other crop equally productive of food for man, it would at this rate maintain in comfort the prodigious number of 192,000,000,000 souls! or two hundred and forty times as many as the present population of our globe!

The Church the Light of the World.

BY THE REV. J. MANNING SHERWOOD.

The light of the church ought to be kept ever burning and shining. Hers is the only light that beams upon the darkness of this world.—Men are taught to expect instructions and warning from her. If they are sailing in dangerous seas, or hard by the dreadful reefs, or approach the fatal breakers, they expect to see some signal of warning, and are deceived and ruined if they do not. And our criminality is without excuse or extenuation, if we let our light go out, and thereby leave those who expect warning and guidance from us exposed to all the perils of spiritual shipwreck. Oh, what hope is there for sinners; how morally inevitable is their endless ruin, when Christians fail to warn them from God! And how often do they fail in this. In times of declension, like the present how dimly burns the light on the watch towers of Zion! darkness broods on the face of the deep; sinners dash carelessly on; no warning meets their eye or ear that danger and destruction are nigh, and they founder on some friendless shore, or are dashed to pieces against some fatal rock. The light of Christians ought to shine with a clear, steady, and powerful lustre. It should shine with a radiance sufficient to illuminate the whole scene of man's danger; pour forth a tide of effulgence so as no darkness shall remain unvisited and no mind be able to gainsay or resist it. A church may have the true light, and yet it may shine so faintly as to be of no avail.—She may hold to the truth, and yet so imperfect may be her advocacy and transmission of it, that her light will be a pale and uncertain one at best, failing to reach with the power of conviction the benighted hearts of perishing men. Or the truth she holds may be so covered up with human devices, so walled round with rites, and forms, and ceremonies, as that the light is smothered and cannot go forth to bless men.—The church must possess the truth in its purity, and leave it free to act in its own native simplicity and divine spirituality, if she would convict the world of sin and bring it to Christ. If the teaching of her ministry be equivocal, wavering, time serving; if her standards do not give a clear, honest, and manly annunciation of the truth; and more than all if her members do not maintain personal purity, and stand forth before the world in the effulgence and attractiveness of a sanctified nature, her light will only lure men to ruin. Oh, it is a fearful thing for a church, set for the light of the world, to corrupt the pure oil of God's truth by any human admixture, or to weaken and confine its light and power by the forms and observances of a burdensome ritual, or to vary its preachings to suit the times or gain the favor of the world.—Never was there a time when the light of Christianity, shining in its own matchless clearness and splendour, was more needed by the world. Never were Christians more loudly called upon by the passing signs of the times, by the actual state of the world and by the light of the future, to put on boldness and speak out the honest truth without fear or favor; to speak as with one mouth for God and true religion; to mingle their lights into one, and hang it out in the face of the world, and let it burn, and blaze till it shall spread from "pole to pole" and be lost in the gathering brightness of the millennial day.—*N. Y. Evangelist.*

EPISCOPACY IN THE UNITED STATES.—From the Churchman, it appears there are in the U. S. A. 27 Bishops, 1,404 Clergymen and 67,000 Communicants.

I Like to Give Money to Jesus.

I like to give money to Jesus. He is my chosen and well-beloved friend. In seasons of severe trial and great affliction, he has freely given ready assistance and faithful counsels.—In prosperity I have been fearlessly and kindly cautioned by him against temptation and self-sufficiency. At all times I have found him a pleasant and instructive companion, never manifesting any indication of his being weary of my company, however long I was disposed to tarry with him.

I like to give money to Jesus. He is my dear Redeemer: to me, as to all believers, he is precious, "the chief among ten thousand, the one altogether lovely." His soul was made an offering for my sins, and he bled and died willingly, to save me from the sufferings I exposed myself to by deliberately disobeying his commands.

I like to give money to Jesus. For so I can lay up treasures in heaven, make myself possessor of everlasting riches; and thus my thoughts and affections, more frequently rise to the land of pure delight.

I like to give money to Jesus. It lessens my earthly possessions, and what decreases them, takes away the cares, burdens and anxiety of life.

I like to give money to Jesus. It is so delightful to bestow it on his poor, afflicted and oppressed children, to whom he has directed us to hand what we are willing to give to him.—There is surely an unspeakable satisfaction in becoming poor that these may gain eternal wealth.

I like to give money to Jesus. It affords me great pleasure to let him have what I value most. Giving him what cost me nothing or what is of inconsiderable worth would not please me much. It would please me far more to part with the most valuable things I possess for his sake.

I like to give money to Jesus. He has promised me soon, if I wish for it, a place in heaven, close by his side: where I may like Gabriel "stand in the presence of God."

There

"To live on the smiles of my God,
And in his sweet presence to dwell;
To shine with the angels of light,
With saints and with seraphs to sing;
To view with eternal delight,
My Jesus, my Saviour, my King."

With such a promise made to me, Oh how can I refrain from manifesting my gratitude to him by presenting him with whatever I have, be it money or any thing else. H.

The Lord Sent It, IF THE DEVIL BROUGHT IT.

There resided in my neighborhood a poor widow, whose means of support were exceedingly limited. Between nursing herself for rheumatism, and spinning and knitting, most of her lonely time was past. I am ashamed to say, that on one or two occasions I joined some wild young chaps in playing off tricks upon her, such as making unusual noises about the house at night, smoking her almost to death by putting a board over the top of her low mud-built chimney and such like doings, that we thought rare sport, but for which we deserved a little wholesome chastisement, if there had been any one authorised to administer it.

One night, soon after dark, it happened that I was returning home in company with a merry fellow about my own age, and had to go by old Granny Bender's cottage. I had been in the town, and was bringing home a couple 'Baker's loaves,' of which some of our folks were as fond as city people are of getting now and then a good taste of country 'home made.'

'Tom said I, as the old woman's cottage came in sight at a turn of the road, 'suppose we have a little fun with Granny Bender?'

'Agreed,' was Tom's answer, for he was always ready for sport.

We had not fully decided upon what we would do when we came up to the cottage, and paused to settle our mode of annoyance. The only light within was the dim flickering of a few small sticks burning on the hearth. As we stood near the window, listening to what was going on inside, we found that Granny was praying, and a little to our surprise, asking for food.

'As she expects to get food from heaven,' said I, irreverently, 'I suppose she will have to be accommodated.'

And turning from the window, clambered up.

*Alison on Population, Vol. 2, chap. xvii.