

MAP SHOWING WESTWARD MOVEMENT OF THE POPULATION'S CENTRE.



The New Centre of Population in the United States

The census bureau has declared Columbus, Ind., the centre of population of the United States. Columbus is in Bartholomew County, on the east fork of White River, in the finest farming land in Indiana. The city has 8330 inhabitants, an increase of 1369 since 1890.

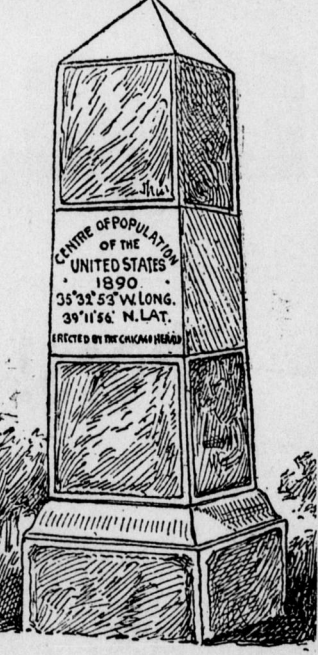
Since 1890 the centre of population of the United States has shifted a little to the north and a little to the west. It is still in the State of Indiana, not far from Columbus, the capital of Bartholomew County, in the southern central part of the State. On the old pivotal point arises a monolith monument erected there May 10, 1891, by the Chicago Herald. On one of the sides of the column is the following inscription:

CENTRE OF POPULATION OF THE UNITED STATES.
85 deg. 32 m. 53 s. W. Long.
39 deg. 11 m. 56 sec. N. Lat.
ERECTED BY THE CHICAGO HERALD.

This monument was dedicated with elaborate ceremonies by the people of Columbus and the contiguous country. Eloquent addresses were delivered by notable Indiana orators and lively interest was felt in the event by the entire Hoosier State. The centre was then about twenty miles east of Columbus. It is now about seven miles north of the same city. Hence it is moving north and west.

In time, with the great increase in population which is coming for the Northwest, it may shift to Chicago. It is by no means impossible that changes in the growth of the population will bring the centre, even if it is carried west of the west shore of Lake Michigan, back to Chicago, where it will remain fixed indefinitely.

The centre of population is the centre of gravity of the population of the country, each individual being assumed to have the same weight. The method of determining that centre is as follows:



MONUMENT AT THE CENTRE OF POPULATION.

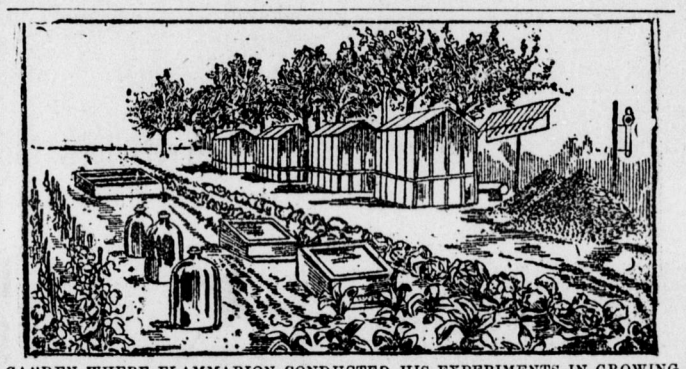
laws: The population of the country is first distributed by "square degrees," as the area included between consecutive parallels and meridians is designated. A point is then assumed tentatively as the centre, and the corrections in latitude and longitude to this tentative position are computed. In 1890 the centre was assumed to be at the intersection of the parallel of 39 degrees, with the meridian of 86 degrees west of Greenwich. This would have made the centre of population of the United States just two miles due north of Seymour, in Jackson County, Ind. From this assumed base the verifications were made and the true centre was located.

The movement of the centre has been steadily westward. On the accompanying map its unwavering march toward the west, with occasional dips to the south and north is shown. In 1790 it was east of Baltimore twenty miles. In ten years it had moved forty miles westward. The annexation of Louisiana brought it south and west, and in 1820 it was sixteen miles north of Woodstock, Va. In 1840 the pioneers of the West brought it north, and in 1850 it had moved south again. Texas had come into the Union. The growth of the great West had switched it back to the North in 1860, and it was near Chillicothe, Ohio. War reduced the population of the South in the decade between 1860 and 1870, and the centre moved north near to Cincinnati. In another decade it had cleared Cincinnati in its westward progress, and in 1870 it had settled in central southern Indiana.

The past ten years has carried the centre westward about twenty miles and northward about seven miles. There is no reason to believe that it

will not continue on its course with the sun and shift to the north until it settles near Chicago, there to remain.

condition. Young plants of a trifle over an inch in height were planted on the same day and in the same manner in all of the four houses, and were carefully attended to. After three months a notable difference was to be seen. Under the blue glass the plants did not die off, but neither did they show any signs of growth. In the white house they were well developed and had grown to an average height of four inches. In the green house the plants were a little etiolated—that is to say, they showed instead of the normal green color, a yellow-white color, but their development had been magnificent, their height averaging six inches. The greatest development, however, had taken place in the red house, where the plants not only showed their usual normal color, but had reached a height of seventeen inches—that is to say, fifteen times the original size, and were blooming splendidly. Flammarion then took two other plants and attained almost the same, or, at least,



GARDEN WHERE FLAMMARION CONDUCTED HIS EXPERIMENTS IN GROWING PLANTS UNDER DIFFERENT COLORED GLASS.

RED GLOW MAKES PLANTS GROW

Flammarion's Investigation of the Influence of Various Kinds of Light on Vegetation.

The experiments in regard to the influence of the different parts of the sunlight upon the growth of plants have been carried on for several years, especially by the famous botanist Sachs, who proved that red rays of the sunlight especially favored the growth of plants and flowers. Such investigations have now been again taken up by M. Camille Flammarion, a celebrated French astronomer. Flammarion established, in connection with the Observatory at Juvisy, near Paris, an experiment station in the form of a small garden, as represented in one of the cuts, where he studied the matter and conducted his experiments. A report recently published contains some interesting points. Flammarion used the double-sided bell-shades, which were filled with colored solutions, and at the same time he provided beds, covered with colored glass. The best results, however, were attained in four little hot houses, one of which is covered with ordinary window glass, and the other three with blue, green, and red glass. The glass used for these houses was carefully examined, and only those pieces taken whose intensity admitted only monochromatic light. Heat and all other conditions are the same in the four houses. The screen-like device shown in the other cut represents a number of thermometers made of colored glass—while in the extreme right is a radiometer for the observation of the intensity of the light. Flammarion first selected for his first experiments a plant from which, through its peculiar forms of growth, we can judge, at any time, of its healthy condition.



DEMONSTRATING THE INFLUENCE OF LIGHT ON VEGETATION.

This was the Mimosa pudica, the well known sensitive plant whose leaves act only upon exterior irritations when the plant is in a perfectly normal condition.

very similar results. Experiments carried on with strawberries showed also the same results; under the red light they developed marvelously. It will readily be understood that these experiments, especially with regard to valuable, rare plants, are of the highest value.—Philadelphia Record.

Gas by the Can. A Parisian novelty, according to Sterling Hellig's letter in the New York Press.

These gas fountains—using the word in the French sense—are long, narrow metal boxes, standing upright, of solid construction, to hold compressed illuminating gas, that by means of rubber tubes are led to incandescent burners by way of movable lamps like those that stand on centre tables in America.



OPENING A CAN OF GAS.

The gas boxes, sold to the consumer at \$5 each, require only to be taken home and set up on shelves. Three form the regulation "battery" for a moderate-sized house, lighting the three rooms which the French light brilliantly, the dining room, the ante-chamber and the kitchen.

One of those bidons, or gas boxes, represents a provision of about 1000 candle hours, which means ten candles during 100 hours, or twenty candles during fifty hours, and so on. When the first bidons are empty the company exchanges them for full ones at a dollar apiece.

Where to Be Good. It was a Payne avenue car, rather crowded, too, on last Sunday night. In one corner sat two little urchins, taking up as little room as possible. Indeed, they occupied about as much room as one adult. The boys were evidently of the class which run about the street on weekdays in bare feet. They could not, however, be included in the "bad boy" class. They were evidently not used to sitting quietly and orderly, and fidgeted about in real distress. Their eyes roamed from the floor to the people, and back to the floor again. Finally one said to the other, in a confiding whisper: "Golly, but ye have to be good in a car, don't ye?"—Cleveland Plain-Dealer.

DR. TALMAGE'S SERMON

SUNDAY'S DISCOURSE BY THE NOTED DIVINE.

Subject: Lack of Patience—Faith, Hope and Charity Bloom in Many Hearts Where the Graces of Patience to Wait—Fidelity Rather Than Contemn the Erring.

(Copyright 1891.)
WASHINGTON, D. C.—This discourse of Dr. Talmage is full length portrait of a virtue which all admire, and the lessons taught are very helpful; text, Hebrews x, 38, "Ye have need of patience."

Yes, we are in awful need of it. Some of us have a little of it, and some of us have none at all. There is less of this grace in the world than of almost any other. Faith, hope and charity are all abloom in hundreds of souls where you find one specimen of patience. Paul, the author of the text, on a conspicuous occasion lost his patience with a coworker, and from that day he urges this virtue upon the Thessalonians, upon the Romans, upon the Colossians, upon the young theological student, Timothy. I conclude he was speaking out of his own need of more of this excellence. And I only wonder that Paul had any nerves left. Imprisonment, flagellation, Mediterranean cyclone, arrest for treason and conspiracy, the wear and tear of preaching to angry mobs, those at the door of a theatre and those on the rocks of Mars hill, left him emaciated and invalid and with a broken voice and sore eyes and nerves a-jangle. He gives us a snap shot of himself as he describes the appearance of his sermonic delivery by saying, "In bodily presence weak and in speech contemptible," and refers to his inflamed eyelids when, speaking of the ardent friendship of the Galatians, he says, "If it had been possible, ye would have plucked out your eyes and have given them to me."

We all think of those who have least of those us with unimpressive visage most admire beauty; those of us with discordant voice most extol musical cadence; those of us with stammering speech most wonder at eloquence; those of us who get provoked at trifles and are easily irritated appreciate in others the equanimity and the calm endurance of patience. So Paul, with hands tremulous with the agitations of a lifetime, writes of the "God of patience" and of "ministers of God in much patience" and of "patience of hope" and tells them to "follow after patience," and wants them to "run the race that is set before us, as they run, with patience, looking unto Jesus, the author and finisher of our faith, who for the joy that was set before him endured the cross, despising the shame, and is seated at the right hand of the throne of God."

The recording angel, making a pen out of some plume of a bird of paradise, is not getting ready to write opposite your name anything but "patience." All your sublime equilibrium of temperament is the result of worldly success. But suppose things mightily change with you, as they sometimes do change. You begin to go down hill, and it is amazing how many there are to help you down when you begin to go in the contrary direction. Under the heavy weight of the Colorado silver mine ceases to yield. You get land poor; your mills, that yielded marvels of wealth, are eclipsed by mills with newly invented machinery; you get under the feet of the bears of Wall street. For the first time in your life you need to borrow money, and no one is willing to loan it to you. Under the heavy weight you get a distressful feeling at the base of your brain. Insomnia and nervous dyspepsia lay hold of you. Your health goes down with your fortune; your circle of acquaintances narrows, and where once you were oppressed by the fact that you had not time enough to return to your social calls, you now find you have no time to get to your own door. Your chief callers are your creditors and the family physician, who comes to learn the effect of the last prescription. Now you understand how people can become pessimistic and cynical and despairful. You have reached the stage of your life when you need something that you have not. But I know of a re-enforcement that you can have if you will accept it. You come upon the road or the sidewalk a messenger of God. Her attire is unpretending. She has no wings, for she is not an angel, but there is something in her countenance that implies rescue and deliverance. She comes up the steps that once were populous with the affluent and into the hallway where the tapestry is getting faded and frayed, the place now all empty of worldly admirers. I will tell you her name if you would like to know it. Paul baptized her and gave her the right name. She is not brilliant, but strong. There is a deep quietness in her manner and a firmness in her tread, and in her hand is a scroll revealing her mission. She comes from heaven. She is Patience. "Ye have need of patience."

First, patience with the faults of others. No one keeps the Ten Commandments equally well. One's temperament decides which commandments he shall come nearest to keeping. If we break some of the commandments ourselves, why be so hard on those who break others of the ten? If you and I run against one verse of the twentieth chapter of Exodus, why should we so severely exhort the man who runs against another verse of the same chapter? Until we are perfect ourselves we ought to be lenient with our neighbor's imperfections. Yet it is often the case that the man most vulnerable is the most hypocritical. Perhaps he is profane and yet has no tolerance for theft, when profanity is worse than theft, for which the latter is robbery of a man, the former is robbery of God. Perhaps he is given to defamation and detraction and yet feels himself better than some one who is guilty of manslaughter, not realizing that the assassination of character is the worst kind of assassination. The lawyer who was in the ancient tabernacle was at his side furnished like a looking glass, so that those that approached that lawyer might see their need of washing, and if by the gospel looking glass we discovered our own need of moral cleansing we would be more economic of denunciation. The most of those who go wrong are the victims of circumstances, and if you and I had been rocked in the same iniquitous cradle, and been all our lives surrounded by the same baleful influences we would probably have done just as badly, perhaps worse.

We also have need of patience with slow results of Christian work. We want to see our attempts to do good immediately successful. The world is improving, but improving at so deliberate a rate; why not more rapidity and momentum? Other wheels turn so swiftly; why not the gospel chariot take electric speed? I do not know. I only know that it is God's way. We whose cradle and grave are so near together have to hurry up, but God, who manages this world and the universe, is from everlasting to everlasting. He takes 500 years to do that which He could do in five minutes. His clock strikes once in a thousand years. While God took only a week to fit up the world for human residence, we have been waiting for the foundations of the world were eons in being laid, and God watched the glaciers, and the fire, and the earthquakes, and the volcanoes as through centuries and millenniums they were shaping the world before that last week that put on the arborescence. A few days ago my friend was talking with a geologist as they stood near a pile of rocks my friend said to the scientist, "I suppose these rocks were hundreds of thousands of years in construction?" And

the geologist replied, "Yes, and you might say millions of years, for no one knows but the Lord, and He won't tell."

If it took so long to make this world at the start, be not surprised if it takes a long while to make it over again now that it has been ruined.

The Architect has promised to reconstruct it, and the plans are all made, and at just the right time it will be so complete that it will be fit for heaven to move in, if, according to the belief of some of my friends, this world is to be made the eternal abode of the righteous. The wall of that temple is going up, and my only anxiety is to have the one brick that I am trying to make for that wall turn out to be the right shape and smooth on all sides, so that the Master Mason will not reject it, or have much work with the trowel to get it into place. I am responsible for only that one brick, though you may be responsible for a panel of the door or a carved pillar or a glittering dome.

So we are God's workmen, and all we have to do is to manage our own hammer or ax or trowel until the night comes in which no man can work, and when that work is all completed we will have a right to say rejoicingly: "Thank God, I was privileged to help in the rearing of that temple! I had a part in the work of the world's redemption."

Again, we have need of patience under wrong afflictions, and who escapes it in some form? It comes to all people in professional life in the shape of being misunderstood. Because of this, how many people fly to newspapers for an explanation. You see their card signed by their own name declaring they did not say this or did not do that. They fester and worry, and realizing that every man is responsible for what he is worth, and you cannot, for any news paper puff, be taken for more than you are worth nor by any newspaper depreciation be put down. There is a spirit of fair play abroad in the world, and if you are a public man you are classified among the friends of the people. If you are a friend of society you will find plenty of adherents, and if you are the foe of society you cannot escape reprehension. Paul, you were right when you said, "Ye have need of patience." I adopted a rule years ago which has been of great service to me, and it may be of some service to you: cheerfully consent to be misunderstood. God knows whether we are right or wrong, whether we are trying to serve Him or damage His cause. When you can cheerfully consent to be misunderstood, many of the annoyances and vexations of life will quit your heart, and you will come into calmer seas than those "stagnated with all might to all patience," and looks us all full in the face as he makes the startling charge, "Ye have need of patience."

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the judge took pity on him and gave him a suspended sentence, which was the same as another chance to show himself a man.

What a splendid opportunity was placed before him! He started in again to show what he could do. Many people encouraged him. For a season his pathway was full of sunshine and hope. But the evil day came. He lost his position because of his lack of foresight. A friend met him on the street and asked him to drink. I call him an enemy. Under the influence of strong drink his animal tendencies were generated in his heart. With the madness of a lunatic he risked his liberty for a mess of pottage. He sold himself to the devil. In an hour he fell under the influence of strong drink. He was caught red-handed. The die was cast. He was arrested, indicted and sent back to Clinton Prison again for five years. This man told me with tears in his eyes that it was his own fault and he deserved all he got for his foolishness.

Five years for one drink of whisky which for the time made him a fool! If there were no wide open saloons in this town this man would still be enjoying his freedom. When a poor drunkard comes before a magistrate in this city, he usually says to him: "John, I will lock you up for your drunkenness." Why don't they lock up the saloons and the poor drunkard would attend to his business. Then he would be able to feed and clothe his family. What an awful account the magistrate will have to give at the bar of God!

A Request From "Little Bobs." Lord Roberts has found time amid his multiplied labors and excitements to send from South Africa to London a telegram rebuking his home-staying fellow-countrymen for the form of welcome with which they have received his discharged soldiers. Lord Roberts is a temperance man of pronounced views, believing as little in alcohol as an ingredient of patriotism as of courage, and it is no wonder that he has been disgusted by the accounts he has received of the orgies which disgraced the London streets on the arrival of the returning troops. "I beg earnestly," his message runs, "that the public will refrain from tempting my gallant comrades, but will rather aid them to uphold the splendid reputation they have won for the imperial army." The heroic "Bobs" is a fighter of such approved ability and determination that he can well afford to do a little preaching on occasion. His sermons are always treated with respect, even if they are not always heeded—and it's more the pity that they are not always heeded.—New York Times.

THE GREAT DESTROYER

SOME STARTLING FACTS ABOUT THE VICE OF INTEMPERANCE.

Who Will Volunteer?—A Collection of Tragedies, Showing What an Awful Account the Rum Seller Will Have to Give at the Bar of God.

Who is ready, who is willing? Who will volunteer? Who will join the gath'ring army? Who the call will hear? Right and truth against the evil must prevail!

If we trust our mighty leader, we shall never fail. Faithful soldiers now are needed on the temperance field. Who are always firm and dauntless, who will never yield. Who are never faint and fearful when the foe is near; that is our army, who will volunteer? —Temperance Banner.

The Rum Demon at Work.

A young man who is now serving a term in State prison for homicide told me again and again, with tears in his eyes, how he committed a crime while in a condition of insensate inebriety that forever brands him as a murderer, writes the Rev. Josiah Monroe, in the New York Witness.

All he can say now is that when the deed was done he was insanely drunk, and did not know what he was doing. But the law takes no such excuse and holds him responsible for the crime, whether he was aware of it or not.

Oh, this cursed rum that makes so many maniacs and idiots, that sends men to the gallows and fills the death chamber. That robs children of their parents and wives of their husbands, that takes the bread out of the mouths of helpless infancy, and steals the clothes off the backs of the infirm and decrepit. The sacrilegious despoiler of the dead; the desolator of the home. The ruin of tens of thousands of all classes, rich and poor, high and low.

Recently I met the father of this young man of whom I speak. He looks patriarchal. His son's disgrace added ten years at least to his life. He was downcast, grieved, mortified, and had been praying for death to come to his rescue, but it did not come. With the Psalmist he had cried many a time, "O God I had died for thee, my rest would have been complete." But what about her who was his best and earliest friend—his mother! She took to her bed at the beginning of the trouble, and became a poor, nervous, chronic invalid. Oh, what misery, wretchedness and disgrace rum brought upon several families, all related to this young man! How it blasts, blights and eternally ruins the most promising life!

Last December an intelligent man, about forty years of age, was discharged from Dannemora Prison, but the great iron gate was hardly closed upon him before he was arrested again for a crime committed several years ago, and, strange to say, one which he had already forgotten. The man had come from a respectable family in New York City, but on account of his long criminal career they disowned him. He felt greatly mortified over this arrest, when he thought he was a free man.

After coming to the city he wrote a very pathetic letter to one of the judges in General Session, saying, among other things, that he had not seen a free Christmas in nineteen years, and begging clemency that he might have one more chance.

He has spent several terms in prison the past nineteen years—on an average, one or two months before he was back again. So that during all these years he had not seen a Christmas.

The judge took pity on him and gave him a suspended sentence, which was the same as another chance to show himself a man. What a splendid opportunity was placed before him! He started in again to show what he could do. Many people encouraged him. For a season his pathway was full of sunshine and hope. But the evil day came. He lost his position because of his lack of foresight. A friend met him on the street and asked him to drink. I call him an enemy. Under the influence of strong drink his animal tendencies were generated in his heart. With the madness of a lunatic he risked his liberty for a mess of pottage. He sold himself to the devil. In an hour he fell under the influence of strong drink. He was caught red-handed. The die was cast. He was arrested, indicted and sent back to Clinton Prison again for five years. This man told me with tears in his eyes that it was his own fault and he deserved all he got for his foolishness.

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Does Not Give Force.

Professor Bunge says: "Alcohol does not give force; it is not force-producing. The seeming exciting impulse which it produces is but a fleeting exaltation of the organism, after which comes the period of fatigue, weakness and paralysis. The consumption of alcohol neither augments the physical energy nor the muscular work. Alcohol does not warm the organism. Alcohol does not favor digestion."

The Crusade in Brief.

The footsteps of every prosperous man are far and away from the saloon. If you drink beer, rum and whisky, you are certain to suffer from bitterness. A little in one's own pocket, and less in the saloon's, is a savings bank notion. Drunkenness has become disreputable or it is pitted as the manifestation of a deplorable disease. Canada consumes just two-thirds of a gallon of spirits per head of population per annum; the United States consumes one gallon of spirits per head; "population per annum."