Scientific American

NEW-YORK, DECEMBER 27, 1851.

Great Experiment with the Fire Annihilator ---Excitement.

Public notices were given that a grand experiment with the Fire Annihilator would be made on the 18th inst. (last Thursday) at 61st st., this city, at 1 P. M. The handbills and advertisements stated that a house would be set on fire, and all that had been claimed for the "Annihilator," by Mr. Barnum and others interested, would be confirmed by the annihilator extinguishing the flames and saving the burning house. It is well known to our readers that this invention has caused great excitement in our country, and that the company which owns the patent is composed of very wealthy and what are termed "big men." Determined to be on the first step of the ladder, we purchased a copy of the patent specification, got up engravings of the drawings, and published them in No. 1, this volume, Scientific American. Having served as a fireman, and being not a little acquainted with the management of fires, also with the nature of the gases which extinguish flame, we took occasion, after a calm review of the matter, to say that we had no confidence in the general utility of the "Fire Annihilator."—Our language was moderate but decisive, nevertheless, being lovers of fair play, and being guided by the rule of honesty to confess wrong, when our error is demonstrated, we said in the article referred to, "we shall watch its progress and report its effects; if it proves all that some have said about it, we shall say so, when convinced by *ocular demonstration.*" We were on the ground before the appointed hour. The house built for the experiment was a small frame building 20 feet square, placed in a field on an elevated position. It was a rough board cottage the main body of which was two stories high, and had a wing at each side. There was no bottom floor; the outside boards were placed vertically, with weather strips nailed on the seams. We were permitted to examine the building by the door keeper, before it was set on fire. In the middle of the main part there were about a dozen 12 feet boards, some scantling, &c., set up vertically through a hole in the floor—the only floor—of the second story. Shavings were stuck around and between the boards, which were placed quite wide apart, and the roof inside was plastered with lime, and not yet dry. A crowd of police were there, and a a chain was placed on stakes around the building, about ten feet from it. At half-past one o'clock, a gentleman came on the back roof, and requested all to retire outside as Mr. Phillips was going to set the building on fire. It was proposed that a committee should be appointed by the crowd to examine the building, witness the operation inside, and report. The committee was appointed, and consisted of Alfred Carson, our Chief Engineer, R. B. Coleman, John P. Lacour, Zophar Mills, Moses O. Allen, and Mr. Eichell. The following is their report:—

"First, The building was constructed of green spruce timber, and constructed in such a manner as would have been a difficult matter, under ordinary circumstances, to have got it fairly on fire.

Second, In our opinion Mr. Phillips had every opportunity afforded him to fairly test the experiment, and everything was in his favor.

Third, A slight fire was kindled inside the building, and the annihilator was almost instantly applied, before the fire got headway to any considerable extent—it partially extinguished it."

We would report further:—the wind was high and freezing, and if there was any virtue in the Annihilators, and the experiment fairly conducted, the character of the "Annihilator" would have been established forever. We counted twenty-one large annihilators, the price of each $35: if the shavings had been let alone, the fire would have gone out of itself, without the application of a single machine. The crowd, numbering thousands, was dissatisfied, numbers jumped over the chains ascended the roof, entered the windows, and exposed to the crowd the boards which had been set on fire and extinguished—they were not charred, some not colored with smoke. They then got a barrel of tar, piled up boards inside, and set the building truly on fire; for a long time this was difficult to do: we never saw boards so difficult to burn. When fairly on fire there was a good opportunity to try the effect of the Annihilator. Not one was applied,—the building burned to the ground. The crowd jeered and cheered, shouted "humbug," and "where's Barnum?" Mr. Phillips, we were told, commenced to apply the Annihilator against the request of the Committee, who thought it was not then fairly on fire. We were told that eight Annihilators were applied: we do not know how many were applied; we saw twenty-one full charged before the fire, besides a large box of charges, and 16 empty after it. When we examined the building we were satisfied that the experiment was not intended to be a fair one; two buckets of water could have done all the "Annihilators" did; still, we felt for Mr. Phillips; he was no doubt pained and mortified at the result, but a New York populace could not be satisfied with what he did; and wherewithall, if he had been a New York fireman, he would have managed his own invention much better.

We hope that none of our friends have lost anything by this invention; we early raised our warning voice, not that we were opposed to the owners or the invention, but because we deemed its scientific qualities of no practical utility for the purposes intended. The thousands assembled to witness the experiment, without perhaps a single exception, believed it to be an entire failure.

It was intended by the American Fire Annihilator Co. to make a fine speculation out of it. The private circular of the Annihilator Co, stated—"An end must be put at once to every serious conflgration in America;" it has not put an end to one: a poor wood frame house put an end to 21 Annihilators, at $35 each—total cost $735: and two buckets of water, costing 0, could have done as well. An agent for a machine was to have a profit of 66 3-8 per cent. One of the great advantages of this invention, says the circular, "will be the immediate reduction it must occasion in the rates of insurance." We have not heard of this having been done in a single case. None would have rejoiced more than we had this invention been a genuine "Fire Annihilator."

To Our Readers.

Next week will bring to a close the year eighten hundred and fifty-one. Many changes have taken place during the brief months and days of it that are gone. A great number of changes generally take place about the new year, and it is customary for fathers to present gifts to their sons, and employers to their apprentices. Last year we directed the attention of parents and employers who had sons and apprentices of a scientific and mechanical turn of mind, to make them presents of the Scientific American, such as by presenting them subscriptions for a year. We have reason to know that the recommendation was acted upon by many, and with gratifying results. No man can be intelligent now unless he peruses scientific periodicals. and no young man can grow up intelligent unless he makes science and art part of his studies.

This is also a very favorable time for persons to subscribe for the Scientific American. We can send all the numbers for the last quarter under one cover, and the new year cannot be commenced in a more becoming manner than by subscribing for a periodical that will present weekly, during 1852, all the improvements, inventions, and discoveries made in science and art. Nothing but useful and reliable information appears in our columns, and considering the character of our paper, the objects to which it is devoted, the great number of engravings we present in a year—about 400—it is perhaps the cheapest paper in the country.

During the year 1852, with the strength of Him who giveth blessings, we will continue to devote our energies to still greater improvements in our paper, and with our great and increasing experience we believe that the future of the Scientific American will be still more ably managed and edited than the past. We are determined it shall be so, and our friends we know trust a good deal in what we say. Those who can influence a friend and a neighbor to subscribe, have our thanks; the more subscribers we have, the more we expend to make our paper worthy of their support.—Upon this principle we have acted, do act, and will act. We hope our readers will enjoy a happy New Year.

Taste.

What is taste? This is a very difficult question to answer. It means something taken into the mouth, which conveys a pleasurable or a disagreeable sensation to the mind: this is physical taste, and yet, although some have called it "a natural quality" or sense, there is the strongest evidence on hand to the contrary. It is a very common saying, "there is no accounting for taste;" this is true in a wide sense, but it is no more true than to say "there is no accounting for habits." The fact is we can account for the manner in which many tastes are acquired, but why such and such tastes should be acquired—why people have a disposition, and, as it were, a fatuity to acquire them—is more than we can account for. Why is it that so many acquire a taste for chewing tobacco—a taste, which, when acquired, or become a habit, is like cutting off a right hand to part with? We should think it very singular to witness people chewing lime, but thousands of Hindoos do this. The natives of the arctic regions reject sugar with loathing, but train oil, candles, and soap, are luxuries to them. Our children like sugar candies, the children in the interior of Africa, use rock salt for sugar sticks. The Frenchman likes frogs, and the Chinese dogs and birdnest soup. Some acquire a morbid taste for clay and slate stones, others for opium and brandy. One man has complete control over his tastes, that is, if there is any thing for which he has a desire to eat or drink, and he is convinced that it would be injurious to him in any sense, he can calmly thrust the temptation to the one side, and feel happy at the sacrifice. Another man sacrifices reason, interest, and conviction to the gratification of his appetite, and seems to be led a miserable captive by this passion. Some would say, upon the system of reasoning employed by Liebig, in his Animal Chemistry, that "all this is easily accounted for, to support the equilibrium of the body, upon the principle that food is to the body what fuel is to the fire. The Esquimaux at the North requires a great amount of carbon to keep up the heat of his body in that cold region." This reasoning may answer with some, but although alcohol and tallow contain far less oxygen, still sugar contains a great deal of carbon, viz., 12C., 11H., 11O., (carbon, hydrogen, and oxygen). It is also well known that, in tropical countries much olive oil is used as food; in Israel "corn and oil" was common food, and it is so in Greece, Turkey, and Spain, and other nations, now. In Africa the natives eat twice as much food as Americans in general.

When a person is convinced that the use of any beverage or article of food is injurious to the system—and certainly it is no difficult matter to know this—he should deny himself the gratification or indulgence of his appetite at once. He should endeavor to make every passion subject to reason and moral principle; he who does not do this is not safe, and never can be a great nor a good man; he may be led away by the most absurd and foolish *taste* for something useless, loathsome, and destructive to health and happiness.

Dr. Lardner and Steam Navigation.

It has been commonly reported, and has almost become a proverb, to illustrate the opposition of learned men to the introduction of new improvements, that Dr. Lardner, at one time, said—"it was mechanically impossible for a steamship to cross the Atlantic." We were always skeptical about the truth of such an assertion, and we see that the learned gentleman, in his last edition of "The Steam Engine, Steam Navigation," &c., denies ever having made use of any such expression; nay, he says, that so far from ever having expressed himself in such language, he gave utterance to quite contrary opinions. This was at the meeting of the British Association at Bristol, England, in 1837. At that meeting the question of Atlantic Steam Navigation was discussed, and the language he used was the following: "He was aware that since the question had arisen, it had been stated that his own opinion was adverse to it. *This statement was totally wrong*, but he did feel that great caution should be used in the adoption of the means of carrying the project into effect—almost all depended on the first attempt, for a failure would *much retard* the ultimate consummation of the project,—he considered the voyage practicable." This was the Report of his speech in the London Times, and for that, it had been asserted that he declared a voyage across the Atlantic, a *mechanical* impossibility. It is wonderful how falsehoods originate, and how far they travel. This one has travelled a long distance. We like to see such things set in their true light—truth is paramount to everything.

Circular Saws.

A correspondent from Smithfield, Johnston Co., N. C., writes to bear testimony to the editorial remarks made on page 90, to our correspondent R. W. W., of Florida. He says that in Smithfield, Messrs. Ballinger & McCallers have two steam mills in which they use circular saws of 48 and 52 inches, which cut the best lumber he ever saw. and they never vary from a straight line. They saw through logs of various thicknesses, and never get warm. These saws are run by Mr. Wm. M. Perkinson, a practical man, who keeps clear of all evils, and who, he has no doubt, can instruct others. He has no theory to aid others, but what he can give in thorough practice.

Mr. D. B. Paine, of Paine's Hollow, N. Y., writes us that the best means for keeping circular saws from heating, is to keep them in first rate order, and give them from one to two thousand revolutions per minute.

We have received a great number of communications on circular saws, in answer to our request; we are much obliged to our readers for their kindness, and sincerely thank them. There are a great variety of opinions, however, and we have not room to publish them all. We should have liked it if we had received more definite information upon thorough practical points, such as the best velocity of saws of various sizes, cutting various kinds of wood; the power applied to drive them, and some minute particulars of management. Above all countries in the world, the United States is most interested in running saws, for there can be no doubt of the fact, we believe, that there are 100 saws running in the United States for one in any other country of a like population.

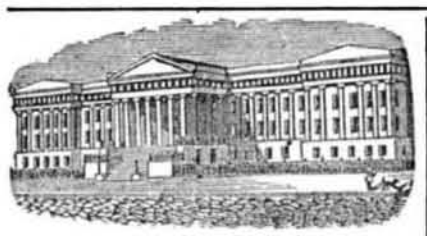
We will have something more to say about saws next week.

Consumption of Anthracite Coal.

We learn by the Philadelphia Ledger that a gentleman of experience in the coal business has been in this city (New York) for a week pursuing the inquiry of the consumption of anthracite coal in this great mart—the centre of coal consumption in America. It appears that all the United States coasting steamships, including the Chagres lines, use anthracite. The Collins line take anthracite out and Welsh and bituminous back. The Cunarders take Cumberland out, and Welsh back. The Havre steamers use bituminous, but the Franklin took anthracite to try it on her last voyage. The Nicaragua steamship company, have contracted for supplies of Scuylkill coal. C.H. Haswell, ex-U.S. Engineer puts down the number of ocean steamers, using anthracite, at 78; and 46 of these did not use it last year (1850). These consume 11 tons each daily on an average. The whole consumption of anthracite, is estimated by a gentleman intelligent in the coal business to be 822 tons per day, by Ocean steamers. All the river steamers except in the interior rivers, use anthracite. What a change; in 1838, all our steamers, here used wood, then we had no sea steamers. We are fast progressing to be mistress of the seas.

Gold of California.

The gold of California appears to be more plentiful than ever. The steamer Georgia arrived at this port on last Sabbath morning, bringing the astonishing amount of three million of dollars in gold dust.



☞ Reported expressly for the Scientific American, from the Patent Office Records. Patentees will find it for their interest to have their inventions illustrated in the Scientific American, as it has by far a larger circulation than any other journal of its class in America, and is the only source to which the public are accustomed to refer for the latest improvements. No charge is made except for the execution of the engravings, which belong to the patentee after publication.

LIST OF PATENT CLAIMS

Issued from the United States Patent Office
FOR THE WEEK ENDING DECEMBER 16, 1851.

To J. W. Drummond, of Skaneateles, N. Y., (assignor to Smith Ely, of New Brighton, N. Y., for improvement in Chair Seats.

I claim the above combination of the frame and web, being the mode of securing the web to the frame, as set forth, by glueing or cementing the web into a groove in the frame.

To Elisha, Charles, and Warren W. Dutcher, of North Bennington, Vt., for improvement in Weaver's Temples.

We claim the roller temple, constructed as set forth, the roller working in a concave, so that the cloth is held at that line of the periphery of the roller which is nearest the reed, at which time the roller is enabled to perform its duty with the greatest efficiency.

To R. M. Ferris, of New York City, for improvement in combining Organs with Pianofortes.

I do not claim combining the organ and pianoforte, irrespective of the manner in which the combination is formed; but I claim, first, the whole or any number of the tubes of an organ with a distinct set of keys, in combination with a pianoforte having its own proper set of keys, in such a manner that either the pianoforte or organ can be played separately, or both at the same time, by the two sets of keys, or both coupled and played by one set of keys, by means of either of two couplers and eccentric barsh, or other equivalent devices, substantially as described.

Second, coupling either or both the organ and piano with a pedal action, and uncoupling them from it, by means of couples acting on the keys and eccentric bars, or their equivalents, so that either the organ and pianoforte, or both, can be played upon by the pedals, substantially as set forth.

To G. L. Haussknecht, of New Haven, Ct., for improvement in Carriages.

I claim, first, the employment of segments C D, and fifth wheels F G (or parts corresponding thereto), attached as described; the one segment, D, and fifth wheel, F, working on pivots secured at points between the front and hind axle; such parts acting in combination with arms, constructed substantially as described, for coupling the movements of two axles, or their turning appurtenances, for the purposes set forth.

To H. W. Hayden, of Waterbury, Ct., for machinery for making Kettles and articles of like character from Discs of Metal.

I do not claim any of the gear wheels or pinions, nor their arrangement, except as hereafter set forth, some of these being common in ordinary lathes; but I claim, first, the application of a rotary metallic form or mould, or successive forms or moulds, in combination with a proper tool or tools, roller or rollers, sustained, moved, and directed, in a proper path, by competent mechanical means, for the purpose of operating on a disc, blank, or plate of metal, so as to reduce it gradually from the centre to the edge, at the same time forming it with straight sides, by successive stages, into a complete kettle, or into any similar article, to the forming of which the apparatus can be applied, substantially as described.

Second, the construction of the mandrel, part of which is cylindrical and part fitted with a short screw, to take the screw of the hand wheel, so that great pressure may be made at the point desired, while, at the same time, the mandrel can be easily and quickly moved through a long distance, for the purpose as described.

To Wm. and Wm. H. Lewis, of New York City, for improvement in Adjusting Lenses.

We do not claim to be the inventors of any of the parts described and shewn; neither do we mean to limit the application of these means to camera, but to use the same, to adjust the focal distance of lenses in optical instruments wherever the same may be made available.

We claim the combination of the pins, spring, and groove, with the two cylinders, for the purpose as described.

To N. B. Marsh, of Cincinnati, Ohio, for improvement in Stethescopes.

I claim the double branch connected with the main trunk, so as to enable persons to use both ears simultaneously, as set forth and described.

To J. P. Pepper, of New Britain, Ct., for improvement in Mineral Composition resembling Jasper.

I claim the manufacture of a mineral composition, having the external characters above described, by the fusion of clay with alkali, soda, lime, and sulphate of copper, as described, or their equivalents, and working the composition into articles of utility and ornament, in the manner described.

To D. R. Richards & J. F. Flanders, of Newburyport, Mass., for improvements in rotating Tumbler Locks.

We do not claim a combination of geared change wheels and notched circular plates applied together in one common arbor, so that the said change wheels and circular plates, shall lay side by side on the said arbor, by which arrangement they require to be removed from the arbor, in order to change the catch of any one wheel from any notch or hole of its circular plate, into and other of the notches or holes of the said plate.

But we claim combining with the rotary tumblers and change gears, arranged as set forth, the projection or tooth, or its mechanical equivalent, and the sliding frame, or its equivalent, for holding and guiding the tumblers during their rotations, and for moving them out of or into connection with the change gears, all substantially as specified.

And we also claim the arrangement of the tooth or bit, and the stud, on a sliding and turning shaft, in combination with the arrangement of the arm and the tumblers, so that when a person tries to move the tumblers, he cannot get end-play on the bolt, and vice versa.

And in combination with the change gears and the arbor, we claim the friction spring or springs and plate, for the purpose described.

To F. A. Rockwell, of Ridgefield, Ct., for improvement in Candlesticks.

I do not claim the employment of a movable detached cork, or other elastic substance, over which a sliding socket is allowed to move; nor do I claim the employment of a sliding socket, but I claim the employment, in the sliding socket candlestick, of elastic packing attached to the standard of the candlestick, substantially in the manner described, whereby I am enabled to support the sliding socket, prevent the leaking of the grease, and also am not obliged to use so long a sliding socket, as where a cork is inserted loose in the socket.

To C. W. Russell, of Washington, D. C., for improvement in Chimney Caps.

I do not claim either the arch on the end plates, or the inclined plates, and irrespective of the devices in connection with them, but I claim, first, the flanges, applied to the arch in combination with the end plates, substantially in the manner set forth.

Second, the inclined plates applied to the arch, substantially as specified.

To Henry Skinner, of Attica, N. Y., for improvement in Churns.

I make no claim to originality of invention in any of the individual parts of the churn, except the dasher, and this I claim only when it is constructed with inclined perforated paddles and tapered elbow tubes, combined, for directing the cream or milk upward, and also throwing it centrifugally against the ribs and concave surface of the churn tub, during the operation of churning, in the peculiar manner set forth.

To N. W. Speers, of Cincinnati, Ohio, for Blind and Shutter Operator.

I claim the combination of the extension handle, provided with taper ends, with the lever and the studs, or their equivalent, by which the handle can, by extension, be made to possess the requisite leverage, and by which, when the lever arrives at that portion of its sweep corresponding to the required position of the blind or shutter, it is firmly secured in its position, and the handle placed out of the way, by being thrust home against the studs, the whole being arranged substantially in the manner described.

To J. W. Thorp, of South Weare, N. H., for improvement in Apparatus for Pressing Garments.

I claim suspending the goose in a tailor's pressing machine, from a carriage travelling on rails, on the end of a vertical spindle; also arranging said spindle so that it may be moved vertically, and swivel or turn upon its axis, substantially as set forth.

I also claim arranging said goose upon the rod passing through the forked end of said spindle, so that it may slide forward and back upon said rod, as set forth.

Furthermore, I claim the combination of a goose, arranged substantially as descibed, so as to move in the several directions specified, with a platform box, susceptible of adjustment, as specified, and heated substantially as set forth.

To S. F. Tracey, of New York City, for improvement in processes for Smelting Copper Ores.

I claim the use, as a flux for ores, combined with an excess of silica, of the sub-silicate of iron obtained from the second smelting, or from iron furnaces.

The grinding of the Regulus or mat to a powder, instead of merely breaking it into lumps or fragments, so that a perfect oxydation can be obtained, and leaching with water, which aids the oxidation and extracts the sulphuric acid, when generated, as that acid greatly retards the refining process when combined with the metallic copper.

To Edward Virtue, of Philadelphia, Pa., for improvement in Tailors' Measures.

I claim the mode of cutting coats and vests by making all the principal parts to depend, in length, on the length of the breast measure, substantially as described.

To T. B. Wheeler, of Albany, N. Y., for improvement in Grain Sieves.

I claim forming sieves for separating grain from straw, chaff, and all extraneous matter, and for the analogous purposes, of sheet metal, with apertures cut or otherwise made in it, and inclined leaves under the said apertures of corresponding form with the apertures themselves, substantially as set forth.

[NOTE.—In the above list of patents granted last week, five of the applications were prepared in this office.

Lignin.

THE WOODY FIBRE.—This most important proximate principle of vegetables exhibits itself in a variety of forms, constituting the different textures of hard and soft wood and various fibrous products, such as flax, hemp, cotton, &c. When by fine mechanical division it is reduced to a pulpy state, it is formed into paper. When, by different reagents, all the soluble matters are extracted from wood, the insoluble residue is lignin: its ultimate components are charcoal, oxygen, and hydrogen, the latter elements being in the same ratio as in water: so that wood may be considered as a compound of carbon and water, and according to Dr. Prout's experiments, almost exactly in equal weights. Lignin is very imperishable; but under certain circumstances it is attacked by the dry rot, arising out of the parasitic fungus, which causes a rapid decay. Damp timber, in situations where air has not free access, is particularly subject to its attacks; and when once it has made its appearance, the well-seasoned timber in its neighborhood becomes liable to the same disease. The dry rot may be prevented by impregnating the timber with certain saline solutions, and of these a solution of corrosive sublimate has been found most effectual: the chloride combines chemically with lignin, and the compound is very indestructible. Lignin has also a strong attraction for alumine; and hence linen, cotton, paper, and other forms of this fibre, may be aluminized by steeping them in hydrated alumine, diffused through water; or, more effectively by soaking them in certain aluminous solutions, drying them, and afterwards washing out the excess of the salt. It is in this way that cotton goods are impregnated with alumine for the purpose of dyeing and calico printing. Other metallic oxides exhibit similar attractive powers, especially the oxide of iron.

The analogy that exists between the composition of sugar, gum, starch, and even vinegar and lignin, suggests the possibility of the conversion of those proximate elements into each other; and it has accordingly been found that by carefully roasting pure and fine sawdust, it is rendered partially soluble in water, and that a part of it is converted into a nutritious substance, probably intermediate between sugar and starch; and which when mixed with a little flour, yields a palatable bread, not very unlike that made by some of the inhabitants of the northern parts of Europe of the bark of trees. Mixed with sulphuric acid, lignin passes into gum; and from this sugar may be obtained by boiling it for some hours in a very dilute sulphuric acid; this sugar, when purified, much resembles grape or honey sugar. By this process rags may be converted into nearly their own weight of this peculiar saccharine matter.

The production of vinegar by the destructive distillation of the wood was originally suggested about the middle of the 17th century, by Glauber, a celebrated German chemist of that time; it has lately become a very important branch of manufacture in this country.

It is much used in calico printing and dyeing, by making two mordants out of it—viz., red mordant and black mordant. The first is used for red and yellow dyes and colors; the latter for black and purple. The former is made by adding alum to the wood vinegar, and sometimes a little acetate of lead; and the black mordant (iron liquor) is made by dissolving clean pieces of iron into it; it is the acetate of iron. A manufactory of this liquor, we believe, exists in North Adams, Mass.

Upon the whole, there are very few natural products equally important with lignin in their applications to the useful and ornamental arts.

Population and Extent of the United States.

The late census presents the following important table of statistics, giving the number of inhabitants in each State and Territory, the area of each State, and the number of inhabitants to the square mile:

State.	Area in sq. miles.	Population in 1850.	No. of inhabitants to sq. m.
Maine	30,000	583,189	19·44
New Hampshire	9,280	317,964	34·26
Vermont	10,212	313,611	30·07
Massachusetts	7,800	994,499	126·11
Rhode Island	1,360	147,544	108·05
Connecticut	4,674	370,791	79·33
New York	46,000	3,097,394	67·66
New Jersey	8,320	489,555	60·04
Pennsylvania	46,000	2,311,786	50·25
Delaware	2,120	91,535	43·64
Maryland	9,356	583,035	62·31
Virginia	61,352	1,421,661	23·17
North Carolina	45,000	868,903	19·30
South Carolina	24,500	668,507	27·28
Georgia	58,000	905,999	15·68
Alabama	50,722	771,671	15·21
Mississippi	47,156	606,555	12·86
Louisiana	46,431	511,974	11·02
Texas	237,321	212,592	·89
Florida	59,268	87,401	1·47
Kentucky	37,680	982,405	26·07
Tennessee	45,600	1,002,625	21·98
Missouri	67,380	682,043	10·12
Arkansas	52,198	209,639	4·01
Ohio	39,964	1,980,408	49·55
Indiana	33,809	988,416	29·23
Illinois	55,405	851,470	15·36
Michigan	56,243	397,654	7·07
Iowa	50,914	192,214	3·77
Wisconsin	53,924	305,191	5·65
California	188,981		
Minnesota	83,000	6,077	·07
Oregon	341,463	13,293	·03
New Mexico	210,744	61,505	·28
Utah	187,923		
Nebraska	136,700		
Indian	187,171		
Northwest	587,564		
Dist. of Colum.	60	51,687	861·45
	3,231,595	23,080,793	

To this number should be added about 200,000 for California and Utah.

We will endeavor to present more information, pertaining to the last Census, in future numbers.