

HOW LEADS GREAT BRITAIN.

During 1898 United States Produced More Coal Than Any Other Country on Earth.

The Engineering and Mining Journal, in its annual statistical number, says that the preliminary statement of mineral production in the United States in 1899 shows that the total production of metals in the United States for that year was valued at the place of production at \$413,738,414, as compared with \$314,235,620 in 1898.

Of non-metallic substances, the total value of the output was \$601,872,631, as compared with \$483,091,970, in 1898. Deducting certain unavoidable duplications, such as coal used in coke or iron ore in pig iron and so on, the net value of the mineral production reached a total of \$891,424,082, showing an increase of \$151,607,352 over 1898.

The gold production was valued at \$72,483,053, and the silver was 61,179,680 ounces.

The most important item was coal, the total of which in 1899 was no less than 244,581,875 tons, the largest quantity ever mined in a year, and putting the United States for the first time ahead of Great Britain as a coal producer.

The pig iron was 13,649,453 tons, or 1,878,619 tons more than in 1898. Copper production amounted to 592,672,637 pounds, a gain of 11 per cent. over the previous year. Other important items were 213,003 tons of lead, 135,798 tons of zinc, 54,048,100 barrels of petroleum, 15,104,511 barrels of cement, 19,025,794 barrels of salt, 65,713 flasks of quicksilver, besides a very great variety of mineral products of less importance.

EXPERIMENTAL FARM.

Model Institution to Be Established by the Agricultural Department Near Washington.

In all probability a model farm will be maintained in a portion of the ground belonging to the National cemetery, Arlington, three miles west of Washington. The house military affairs committee agreed upon a favorable report on a measure providing for a general experimental farm in its broadest sense in all pertaining to agriculture, including animal industry and horticulture, and where the science of farming will be practically illustrated. This farm will be under the direction of the secretary of agriculture. The project is endorsed by the secretary of war, and he is willing to turn over the land necessary to operate the farm to the secretary of agriculture.

That portion of the Arlington grounds which will be used for this purpose has the appearance of an abandoned estate, with no improvements. The surface is much gullied and cut up by rains and the flow of water into the creeks which cross it and empty into the Potomac river. The committee in its report says there is no question but under the direction of the secretary of agriculture the premises now so uninviting to the view will not only be charged to a beauty spot, but will prove a most substantial and practical benefit to the agricultural department.

DIVORCE AN ABOMINATION.

Bishop Leonard, of Ohio, Criticizes the System; and Also the Bill-board Pictures.

Bishop Leonard, of the Episcopal diocese of Ohio, in an address to the city ministers' union of Cleveland, criticized present-day church methods in a severe manner. He denounced the divorce system in the strongest terms, and gave it as his opinion that the walls of the home are crumbling in consequence of the extent to which the system is carried.

"Marriage after divorce," he said, "is nothing but polygamy, legal polygamy in the sight of man, perhaps; but an abomination in the sight of God."

From divorce Bishop Leonard turned to bill boards, and said that the displays on some of them were enough to bring the blush of shame to the cheek of a maiden, and that they ought to be abolished.

"There is less spirituality to-day," he said, "than formerly. The religious life is too secularized, and for this the churches are themselves responsible. It is little wonder that the churches are not filled. In former days men could not be seen driving through the parks on Sunday. This is a practice that should be stopped and cannot be too severely condemned."

WATERPROOF CLOTHING.

Khaki Cloth Not Sufficient to Keep Out Driving Rain, and Oiled Silk Is to Be Used.

Some interesting tests are in progress at marine corps headquarters in Washington. Trials by the quartermaster of the corps are being conducted of waterproof material for the manufacture of outer clothing for marines. It is the opinion of officers who have been service in the Philippines that khaki coats will not be sufficient to withstand the driving rain of the tropics. Those officers are of the opinion that the best material for this purpose is goods of the character of Japanese oiled silk, which has the advantage of being cool and light. Recommendations will be made to the commandant of the marine corps to have supplied to the marines outfitted with khaki uniforms equipments of like color. This advantage of equipping the troops with cartridge belts, canteens, knapsacks, and haversacks of khaki color are obvious.

When a Boy Has a Good Time.

It would be slanderous to say, remarks the Boston Globe, that in Philadelphia the twentieth century will not begin till January 1, 1910.

RURAL DELIVERY FAVORED.

Has Gained Complete Regard of the Man in the Country—Advantage It Is to Him.

"I am heartily in favor of the rural free delivery system," said Representative Landis, of Indiana, "and the people of my district are delighted with it. In the territory represented by me there are more rural delivery routes than in any other congressional district in the country, and my constituents are so well pleased with it that if the government should decide to abolish the system they would pay for its maintenance out of their own pockets. It enables them to have letters and newspapers delivered at their door every morning in the year, and in this way the system is not only a great educator, but it helps to enlarge the circulation of the newspapers and is of assistance in a business way to the farmer. It brings them in touch with the government to some extent."

"The expenditures of the government aggregate more than \$800,000,000 annually, and the farmers naturally ask themselves the question where they derive any benefit from this enormous outlay. They have an answer to it in the mail delivered at their doors, and they are perfectly satisfied and feel that they get some return for the taxes they contribute toward the maintenance of the government. The farmer of to-day is really a merchant, and he must of necessity come in closer contact with the markets of the world. This can be done by receiving the newspapers, which give the market quotations and assist the farmer in disposing of his product."

"In my opinion the farmer is more entitled to free mail delivery than his brother in the city, because it means so much more for him to drive eight or ten miles to the post office. The city man could get his mail at the post office if the delivery system should be abolished much easier and with less expenditure than the man in the country."

LETTER'S LONG TRAVELS.

Bankers Amuse Themselves for 27 Years with International Mail Service.

A letter has been passing for 27 years between Edward L. McKee, vice president of the Indiana National bank at Indianapolis, and W. B. Fenton, vice president of the National Bank of the Republic, of Chicago. McKee received it the other day from Manila. McKee and Fenton were reared together at Madison, Ind. Both came to Indianapolis.

Fenton, in 1873, walked into a shoe store at Indianapolis where McKee was a clerk, and started to tell the gossip of his native town. McKee laughingly said he had no time to listen. Fenton wrote him a letter of one sentence and mailed it. It said: "Friedersdorf is building a handsome new house." McKee received the letter the next day and mailed it back. It passed back and forth for weeks.

From Chicago Fenton mailed it to "E. L. McKee, Bombay," with instructions to "return to E. L. McKee, Indianapolis, if not delivered."

It has been sent to "W. B. Fenton, Cape Town," and to "W. B. Fenton, St. Petersburg," to be finally delivered to Fenton in Chicago. It has been around the world several times. Since the letter first started neither has ever mentioned it to the other.

SKIPPER'S WIFE SAVES CREW.

Men on Ship Give Up Battle with the Waves, But Encouraged by Woman, Work Until Rescued.

Capt. John Kelsey and nine seamen of the big New Haven (Conn.) schooner, W. Wallace Ward, owe their lives to the bravery of the skipper's wife. For five weary days and nights the men had battled with waves that almost wrecked their vessel. Worn out with loss of sleep and food, the pumps choked, the cargo listed, and the rigging torn, the men were in despair.

"Cap, give it up," said the sturdiest of the lot. "It's no use; we're done for."

Then Mrs. Kelsey rushed out of the battered cabin. Waving a hand to the men, she cried:

"For God's sake, stick to the pumps. Help will surely come. I know you're not cowards. Come on, now."

She went to work herself and her example gave the men new life. They sprang to the pumps and worked with superhuman energy, but even this was unavailing, and the Ward was settling when the Norwegian ship Themis came in sight and rescued the crew, landing them at Philadelphia.

MOTHER TIES WEDDING KNOT.

Mrs. Heussmann, Woman Preacher, Performs Marriage Ceremony of Her Daughter at San Francisco.

Rev. Mrs. Kate Heussmann, of San Francisco, performed the marriage ceremony uniting her daughter, Mary Violet Heussmann, to Felix Drapinski.

"You," she said, addressing them, "are united in the holy bonds of matrimony, promising to love, honor, cherish and esteem each other, knowing that all your actions in life are witnessed by those near and dear, who are with you in the spirit."

This is the first wedding in California where a mother performed the ceremony and her daughter was the bride. Mrs. Heussmann is an ordained minister under a state charter issued to the Independent Bible society, of which she is a missionary. As there is some doubt as to the legality of the wedding a civil ceremony will be performed.

When a Boy Has a Good Time.

It is a sign, says the Atchison Globe, that a boy on a visit is not enjoying himself if he is afraid to go out in the kitchen.

OWNS RARE OLD MANUSCRIPT.

John Beutler, an Ohio Man, Possesses Original Copy of the Justinian Code.

John Beutler, of Wapakoneta, O., has in his possession some heirlooms consisting of manuscripts and books which have been handed down from father to son since the ninth and sixteenth centuries. He has original manuscripts of the code of Justinian the Great, emperor of Rome, written in the latter part of the fifth century. He also has original manuscripts of the annals of C. Cornelius Tacitus, the Roman historian, written in Greek, about the middle of the ninth century. These manuscripts are on parchment and are well preserved.

In the middle part of the sixteenth century the German ancestors of Beutler had these manuscripts printed in the Teutonic Latin, at Mainz, Germany, by Gutenberg and Faust, the first printers to use movable type. Hence these books are probably part of the first edition of the code and annals ever published. They are neatly printed, well bound in porpoise hide, and, although yellow with age, in excellent condition.

Although quite small in size, Justinian contains 260 pages, and Tacitus 500 pages. They have been in the family 13 generations. Mr. Beutler's father, John Nipmuck Beutler, brought them to America from Baden, Germany.

The annals of Tacitus have several Latin words on the fly leaf, written by Allen G. Thurman, formerly United States senator, who had the book in his possession for two years studying the history. He offered \$800 for the book, and a larger sum for the other works, but Mr. Beutler refused.

INSTRUCTION IN ELECTRICITY.

It Is Proposed to Reorganize and Enlarge the Scope of the Course at Fort Monroe.

It is proposed to reorganize and enlarge the scope of the course of instruction at Fort Monroe for enlisted men of the army in electricity. The subject has become of great importance in connection with the new coast defenses. Capt. George Anderson, Seventh artillery, has been ordered to proceed to Fort Monroe for duty pertaining to the school of instruction of enlisted men in electricity and its appliances. The enlargement of electrical equipment at many posts and the creation of the new grade of electrician sergeant to meet the demands of the service make it more necessary for these sergeants and other enlisted men to become conversant with electrical matters, and to extend their knowledge beyond that which was necessary merely for the transmission of messages over the wires.

Electrician sergeants are required to keep in order the electrical equipments of their posts, and they should therefore be well versed in the technicalities of electricity. Examinations of candidates for appointment to the grade of electrician sergeant are now conducted, but a board of officers was appointed some time ago to formulate more specific rules for these examinations. The board is still sitting and has not submitted its report.

THREE CENT COINS.

New Form Proposed in a Bill Introduced in Congress by Representative Berry, of Kentucky.

While nearly all the three-cent nickel pieces have been collected in the treasury Representative Berry, of Kentucky, wants a new form prescribed for those now out. He has introduced a measure which provides that the future weight of those coins shall be 40 grains, Troy, and they shall be of the same diameter as the one-cent pieces, but shall have a round hole in the center one-quarter of an inch in diameter. On one side there are to be 13 stars and the year of the coinage, and on the reverse the inscription: "United States of America," and figures designating the value of the coin.

Mr. Berry introduced the measure to relieve those who have deceived themselves in accepting the three-cent pieces as dimes. It is well known by everyone who handles these coins how much they resemble the ten-cent piece, and unless great care is exercised they are likely to be accepted for the latter coin. For this reason the three-cent pieces are extremely unpopular, and most of them now repose in the public treasury.

LITTLE LIFE AT BOTTOM.

Prof. Alexander Agassiz Studies the Deeper Parts of the Pacific Ocean.

Alexander Agassiz, director of the Agassiz museum at Harvard, has just sent a letter from the island of Tahiti, in the Pacific ocean, to the United States fish commissioner. Prof. Agassiz left San Francisco in the Albatross, a vessel loaned him by the government, to study the bottom of the Pacific ocean. He made 72 soundings in the hitherto unknown basin at the bottom of the ocean.

A large amount of animal matter was studied by dredging from the bottom of the ocean, with the general conclusion that there is little life in the deeper part of the sea far away from land.

High Price for an Old Book.

At a recent auction sale in Paris a copy of the 1755 edition of the "Fables of LaFontaine" brought 8,100 francs. It belonged originally to one of the court ladies of Queen Marie Antoinette.

Few of Them Left.

Outside barbarians will kindly note, says the Boston Globe, that Boston still has authors enough to form a considerable club.

EARTH'S MAGNETISM.

Reason Thereof Explained by Experiments of Dr. Rowland.

By a Simple Contrivance the Professor of Physics at Johns Hopkins University Proves It Results from Revolving Motion.

Dr. Henry A. Rowland, professor of physics at the Johns Hopkins university, has made a discovery of great importance to the scientific world. It is in the nature of an explanation of the cause of the magnetism of the earth.

It was nearly a year ago that Dr. Rowland commenced his experiments. He was attracted to the subject, he says, by the lack of explanation or theory for the earth's magnetism. The experiments have been continued by Dr. Rowland and his assistants, and their efforts have recently been productive of satisfactory results, which will soon be reported fully for the benefit of science.

The apparatus used by Dr. Rowland is a simple metal wheel revolved upon a shaft by means of an electric motor. The wheel is wound with several miles of fine wire, and in this magnetism is developed when the wheel is revolved. About the wheel is a casing or sheath of brass at a distance of about half an inch from its circumference, but leaving an air or ether space between which may be said to represent the layer of atmosphere about the earth.

With this simple apparatus Dr. Rowland is now working to show that the faster the revolution of the wheel the more magnetism will be developed. He has shown already that magnetism is produced in this revolving body, and although upon such an infinitesimal scale in the laboratory experiments, Dr. Rowland says he is convinced that the principle holds good for the earth and other heavenly bodies, as they revolve through space. Of course, the immense weight and great speed of these bodies add to the amount of magnetism which they produce.

It will take an almost endless series of delicate experiments to bring out the various phases of the relation of the magnetism to the speed of the revolving body. For instance, the wheel is revolved at a certain speed with the outer sheath, and again without the sheath, to show if any difference exists. Then these experiments must be made at another speed and so on.

Dr. Rowland, however, is so highly pleased with the results so far attained that he will continue the work for some time to come.

EARLY MORNING SERVICE.

An Experiment to Be Tried by Rev. Dr. Wilton Meritt Smith, of New York.

Rev. Dr. Wilton Meritt Smith has inaugurated early Sunday morning service at Central Presbyterian church, New York, and church members of all Protestant denominations are deeply interested in the experiment. It is the first time any Presbyterian minister has ever tried to compete with the early mass of the Roman Catholics or the early morning communion services of the Episcopalians.

"The first of these services was held the other Sunday morning," said Dr. Smith, "and I believe they will prove highly successful. The members of the congregation to whom I have talked think it a capital move. One paper states that this move had been taken for the sake of the servant girl. That is nonsense. Of course the servant girl is as welcome as the millionaire, but we are not entering particularly to her or to anyone else."

"The early morning service is for every one. There will be prayers, responsive readings, and a short sermon, all of which will last only 20 minutes. We simply desire to make our church as useful as possible in the community."

AT ODDS WITH SOCIETY.

Julia Ward Howe Not Pleased with the Modern Manners of High Society.

Mrs. Julia Ward Howe is not satisfied with the manners of the general public, and especially is she displeased with the manners of what the terms "high society." She announced this at a meeting of the New York League of Unitarian Women in All Souls' church, Twentieth street and Fourth avenue, New York, the other day. The object of the meeting was a discussion on "The Century's Progress in Morals and Manners."

"I wonder," said Mrs. Howe, "if the manners of the general public have improved at all? I contrast with the manners of my youth the ease in high society of what we may call the dialects of low life. Worst of all is the aping by Americans of foreign fashions and ambitions."

"In Aesop's Fables the ass put on the lion's skin, but in our modern society the American lion would gladly be mistaken for the European ass, and has here and there, acquired the foreign bray."

An Address Wanted.

The man who was discharged by the bankruptcy court of debts amounting to \$5,000,000 will please inform a waiting world, says the Chicago Record, as to the address of the confiding person from whom he has been buying his groceries.

Illegal Mortgage.

In a Texas case Judge Dillard decides that a mortgage on an unplanted crop is wholly illegal and void.

Boston's Second Church.

The old "Second church," in Boston celebrated its two hundred and fiftieth anniversary recently.

FRUITS IN PUERTO RICO.

Special Agent of Agricultural Department After Investigation Reports Them of Poor Quality.

Dr. O. F. Cook, special agent of the agricultural department, has returned from Puerto Rico, where he went to ascertain what species and varieties of plants are found there, in order that the department might be able to enter upon the work of securing others likely to be of use in improving and extending the agricultural industries. He finds that coffee, sugar and tobacco are the principal productions, and that fruits and vegetables sold in the markets of Puerto Rico are inferior in quality and unsuitable for export. The banana, for instance, has scarcely been considered as a source of income or an article of export. It has been planted principally for shade in coffee plantations, and as one variety was as good as another for this purpose, most of the bananas are unsalable. As the conditions for commercial banana growing are favorable, it may be expected that attempts in this direction will soon be made. It is necessary, however, that at least 50 acres be put under thorough cultivation, for the product of less land can hardly be marketed to advantage.

There is room for great improvement in the production of coffee, and if modern methods were employed this industry would be much more profitable than it is at present. Oranges, limes and other citrus fruits, European grapes and other semitropical fruits and vegetables can be produced in the drier parts of the island, while from the moister parts vanilla, cocoa, mangoes and other strictly tropical plants can be exported. There are no localities sufficiently hot and humid for the rubber-producing plants of the Amazon valley, but the African rubber vines, if planted on the rocky pinnacles of the foothills, will thrive, and the wealth of the island can be greatly increased by their cultivation.

WANTS TIME CHANGED.

Representative Shafroth, of Colorado, Thinks Congress Ought to Meet in January Following Elections.

"I will push my measure providing for changing the day for the assembling of congress," said Representative Shafroth, of Colorado, the other day. "Under present conditions members do not take the oath of office under 12 months after they have been elected. Therefore, I contend the members are not fresh from the people, and the house is not a representative body. Before members-elect take their seats a condition have changed and questions which were alive during the election campaign which they were sent here to legislate, have changed."

"Under existing arrangements a member frequently serves his second session in congress after having been turned down by his constituents, and consequently he does not represent anyone. If any man of having a good conscience in the January following the election be elected, it would be a way with all of these objections. A member would have completed his term and made his record; then he could go before the people and say: 'Here is what I have done. If you approve it give me another term, but if you disapprove what I have done, then reject me.'"

"After a member has been defeated by his constituents there is a disposition to 'get even' with them, and he is likely to be careless and neglect his duties. A defeated candidate is naturally downcast, and if there is a time during a legislator's life when he is open to bribery, it is just after his record has been disapproved by his constituents in his contest for reelection."

TO ASK AID OF CONGRESS.

L. A. W. to Take Most Important Step Toward Securing Road Improvement Throughout Country.

The most important step which the League of American Wheelmen has yet taken in its work for good roads is about to be inaugurated. President Keenan, of the L. A. W., has arranged for the early presentation in congress of a bill appropriating \$5,000,000 for the construction of improved highways throughout the United States. Representative Graham, of the Twenty-third Pennsylvania district, will father the measure, which every L. A. W. member and official throughout the United States will be asked to give his energetic support. President Keenan states that he feels assured of the hearty cooperation of the farmers all over the country in securing the passage of a measure so manifestly in their interest.

Chicago Girl, of Course.

Miss Annie Kasser, the young artist who entered the belle-guerce town of Kimberley for the purpose of painting a portrait of Cecil Rhodes, and who after completing her work escaped from the town through the Boer lines, is a Chicago girl. In view of all the facts connected with her exploit, comments the Chicago Inter Ocean, perhaps this statement is wholly unnecessary.

But the Goat Is Dead.

A man in Kansas is the possessor of the apron and baldrick worn by George Washington as a man. The goat on which the Father of his Country rode has, on the authority of the Chicago Tribune, been dead several years.

Heavy Post Office Receipts. The heavy postal business of the Chicago office during December is shown in a report of Cashier Dawes. The receipts for the month were \$585,709, which is an increase of \$42,624 over the same period of 1898.

Words Used 4,000 Years Ago. Chinese scholars claim that four words were in use in their country 4,000 years ago.

IT WAS PREMATURE.

Dr. Mechnikoff Annoyed by Announcement Regarding Serums.

Says That While They Are Experimenting with a Rejuvenating Lymph Still It Is Preposterous to Claim Success Yet.

Dr. Elle Mechnikoff, of Paris, is seriously distressed that the London Morning Post, whose correspondent he never saw, should have printed the discovery of the so-called "elixir of life." Dr. Mechnikoff, when interviewed, said: "That English article makes me a charlatan, which I am not. It is true we are conducting some experiments at the Pasteur institute with a lymph which shows wonderful rejuvenating properties when tried on animals."

"Of course, our ultimate purpose is to retard the atrophy of those cells in the human body whose early decrepitude causes old age and death. But discovery and then certitude in this line must necessarily be slow work, and it is preposterous at this stage to announce that we have discovered the secret of prolonging human life. We feel so far from certainty yet that we do not dare to experiment on human beings."

"But I have no hesitation in saying that we seem to be on the right track."

Dr. Mechnikoff added that his next great scientific discovery may be a serum which will feed the human cells so accurately that the average life and period of strength will be doubled or tripled.

He added: "We do not say we have found such a serum. We, like other scientists all over the world, have long recognized the truth of the Brown-Sequard theory. Old age is abnormal, and the possibility of prolonging life is an interesting problem. We, like some German and American colleagues, are doing what we can to solve it."

Two physicians, members of the Academy of Medicine, read papers before that body on their discovery of a serum against alcoholism. Interviewed, they said, like Dr. Mechnikoff, that it was premature to speak through the newspapers, though successful experiments had been made on 200 drunkards.

The serum is made from the blood of a horse whose system has been kept saturated with alcohol for some time. When the serum is injected into the patient it gives him a longing for liquor.

Scientists in Paris regard the latter discovery as much nearer perfection than Dr. Mechnikoff's.

CHANGES IN SPELLING.

University of Chicago Leads Its Influence to the Shortening of Words in Common Use.

The University of Chicago will use and advocate the new spelling, by a vote of 28 to 16 the university congregation has passed itself on record as favoring the use of the reformed spelling adopted by the National Educational association in its publication. Twelve words are affected by the change. They were selected by a committee appointed by the National Educational association to advise some most needed changes. They represent some of the words used most frequently in common writing and printing which can be spelled more simply than previous custom allows. All contain a number of silent letters. In the reformed the words are spelled according to their sounds and contain no useless letters. The words which are remade by the reform appear ordinarily as follows: Catalogue, pedagogue, demagogue, proglogue, decalogue, although, thorough, thoroughfare, throughout, and programme. They will appear in all university publications according to the new arrangement as follows: Catalog, pedagog, demagog, proglog, decalog, altho, thro, thoro, thoroare, thru, thruout, and program.

CHINESE IN A ROMANCE.

Christianized Oriental to Meet for the First Time at the Altar in Philadelphia.

The first marriage in this country of a Christianized Chinese couple will take place at Philadelphia shortly. The fact that the prospective bride and bridegroom have never seen each other lends additional interest to the event. The future husband is Wung John, the proprietor of a Chinese restaurant in Philadelphia, and his fiancée is Su Ting Fu, who is now on her way to Philadelphia from San Francisco, where she was a pupil in the Presbyterian school for Chinese girls.

Some time ago Wung John applied to Rev. Frederick Poole, in charge of the Chinese mission here, with the request that the latter endeavor to secure a wife for him. Mr. Poole went to San Francisco and selected Su Ting Fu. She and Wung John exchanged photographs and the engagement was made by mail. Wung John forwarded \$200 to his affianced with which to purchase her wedding gown and pay her expenses to Philadelphia.

Reason of His Views Explained. One of our contemporaries declares that "few men are as good as their wives think they are." We suspect, says the Chicago Times-Herald, that the editor who delivered this opinion is trying to win on the strength of his "woman's page."

Looks Fanny.

To the unaccustomed eye, remarks the Chicago Tribune, the reformed spelling adopted by the University of Chicago looks like a college yell.