

TARRED MACADAM.

Experiment Proves That It Makes a Hard and Most Enduring Pavement for City Streets.

"After years of experiment, this city is laying a pavement that for excellence, durability and cheapness is commended for examination to those in charge of similar works in the United States," writes Consul Shepard from Hamilton, Ont.

"The possibility of making good roads at reasonable cost has been demonstrated, and tests extending over a number of years on business streets prove that tarred macadam makes not only a smooth and solid roadway but one that can be kept in perfect repair at nominal expense.

"The first cost in this city, where limestone is abundant and near at hand is from 70 to 86 cents per square yard; and the engineer estimates the cost of repairing on heavy traffic streets at less than 1 cent per yard per year, while asphalt costs over three cents.

"The addition of tar renders the roadway impervious to water, frost-proof in winter, and prevents mud and dust in summer. It is easily repaired and does not require scraping, thus avoiding much wearing of the surface.

"One block of tar macadam laid more than a year ago on a business street, where there is heavy teaming shows no perceptible wear today. In residential streets these pavements have been in use eight years, without any repairs, and are still in good condition.

"Most of the stone used here is machine crushed, but during the winter season it is broken by hand labor and paid for per cord, to furnish employment in lieu of alms to the needy.

"Limestone is used because it is abundant, but granite or flint stone would absorb less tar and stand more pressure and wear."

GATHMAN GUN STANDS TEST.

Invention of Chicago Man Exceeds Requirements of the Government.

The 18-inch Gathman torpedo gun, manufactured by the Bethlehem Steel company for the Gathman Torpedo company of Chicago, and for which the government appropriated \$65,000, without successfully severe tests on the steel company's proving grounds at South Bethlehem, Pa., the other afternoon and more than met the government's requirements. The board of ordnance and fortifications demanded that ten shots be fired and that the tests show a pressure of 18,000 pounds and a velocity of 1,800 feet per second.

Solid shots weighing a ton were fired. After two preliminary shots the third shot, with a charge of 300 pounds of powder, gave a pressure of 19,045 pounds and 1,890 feet velocity, while the fourth shot, with the same amount of powder, gave a velocity of 1,901 feet and a pressure of 19,350 pounds. The remainder of the ten shots will be fired next week.

The tests were witnessed by Lieut. Gen. Nelson A. Miles, Gen. John Wilson, chief of engineers; Gen. A. R. Bufington, chief of ordnance; Col. John I. Rodgers, fifth artillery; Gen. Thomas J. Henderson, civilian member, and G. H. Powell, secretary of the ordnance board; Lewis Gathman, the inventor of the gun, and steel company officials.

The gun is intended for coast defense purposes. Inventor Gathman claims that it will throw an aerial torpedo shell 15 miles, if necessary that will be effective, whether it strikes an object at that or shorter distance, and which will demolish the strongest battleship afloat. Guncoiton will be used in the charges. The gun is 44 feet long and weighs 59 tons.

BURIED TREASURE FOUND.

Gold, Silver and Copper Coins Unearthed by Workmen on Site for New York Hotel.

In the work of excavation for the foundation of the new Willard hotel at Washington, the workmen have unearthed a lot of gold, silver and copper coins, a silver watch, a number of medals and relics of perhaps former and long forgotten guests of the celebrated hostelry, and a number of keys to the doors of guest rooms, when Willard's hotel was known as the "Mansion House" way back in the '50s.

The first intimation that anything of value was buried in the cellar of the historic old building was when John Washington, colored, turned up a key to room 103, according to the brass tag, which also bore in addition to the figures the words "Mansion House."

A few moments later Washington turned over a number of coins. He stopped digging and examined his "find." After considerable rubbing he discovered that he had two silver half dollars, three quarter dollars, a number of dimes, nickels and coppers; in all about \$3 worth of American money.

Fellow-workmen soon "caught on" to the fact that Washington had "struck it rich" and the picks and shovels were soon working in lively fashion where Washington had been plowing away alone for several hours. In a short while a silver watch was unearthed along with several \$5 and \$10 gold pieces, a number of foreign coins, and 20 or more keys to the rooms of the old Mansion House.

About this time a heavy rainstorm occurred, but in spite of the downpour of rain the men refused to quit work. But with pick and shovel kept hard at it digging for buried wealth.

Proper Evidence.

A Saline county man avers that after a severe storm he found a ten-inch catfish on the top of his house. Evidently, says the St. Louis Star, a doubt as to whether the man saw a cat or fish is inadmissible.

ABOUT MISS QUITO.

Government Issues Bulletin Regarding Her Habits.

New Jersey Branch of Family Not a Circumstance to Her Alaska Sisters—Have Taken to Traveling on Trains to Distant Points.

The department of agriculture is about to issue a bulletin prepared by Entomologist L. O. Howard, on the mosquitoes of the United States. It discusses their structure and biology and indicates the difference in all stages of existence between the kinds of mosquitoes that transmit malaria and those that do not, and also discusses the subject of remedies. Among other things the bulletin says that since the opening up of the gold fields in Alaska and the great influx of miners and traders, knowledge of the abundance and ferocity of the Alaskan mosquitoes has become widespread and government surveying parties in starting for Alaska for their summer's work are in the habit of consulting the department for mosquito bite remedies. "Those who were in Alaska the preceding year always state that they never experienced or even imagined anything in the mosquito line quite equal to those found in our northern territory. Mentioning the reputation of New Jersey in connection with mosquitoes, the bulletin says there is a constant carriage inland from the marshy coast of very many mosquitoes, the railway trains seeming to be the most important mode of conveyance. Many of the cars contain mosquitoes by the hundreds. In this way even mountain resorts will get their supply of lowland mosquitoes, and with the improvement of railway service and the increase in the number of through cars the danger is constantly increasing. The source of supply to distant points where mosquitoes are ordinarily rare is thus kept up.

About 250 species of mosquitoes are known, of which only about 30 have been found in the United States. The report says that of the remedies in use in houses the burning of pyrethrum powder and the catching of mosquitoes on the walls in kerosene cups are probably the best, next to a thorough screening and mosquito bars about the bed. The remedies for bites mentioned are glycerin, a lump of indigo and household ammonia.

TWINS LIVE AND DIE ALIKE.

The Singular Case of Claudie and Clyde Wilson in Wood County, O.

One of the most singular cases of similarity in life and death ever known to physicians of that section is shown in Claudie and Clyde Wilson, twins, whose funeral was held at Rudolph, Wood county, O. The children, a boy and a girl, were born four months ago to Mr. and Mrs. Archie Wilson. They looked so much alike that only their mother could tell them apart. They were similar in their actions, their likes their dislikes, their troubles and their joys.

About two weeks ago the girl fell from her mother's arms and struck on her face on the floor. She cried bitterly, and the boy, too, seemed to have been hurt and he cried as hard and as long as did his sister. A large red lump appeared on the girl's right temple, and last Friday the little one fell sick. The doctor said it was brain trouble and held out no hope for the child's recovery. The boy fell sick from the same brain trouble and died within a few hours of his sister in the same manner.

BEATS THE TROLLEY.

Lively Race at Newport Results in Easy Victory for Vanderbilt's Swift Automobile.

William K. Vanderbilt outdid all his former automobile racing records by beating one of the fast electric cars running between Newport and Fall River. The car was filled with people, who craned their necks to watch the rapid dash of the Vanderbilt machine. Some one cried out to the motorist: "Give him a run for his money," and the race was on. It began at the top of a hill, and there was a down-grade for half a mile.

The car rushed at such speed that the passengers could scarcely catch their breath. Mr. Vanderbilt opened the throttle and the machine, which had lost ground by the curve, rushed past the car, and in a few moments was out of sight of the passengers. The car was running at the rate of 25 miles an hour.

ALLIGATOR IN TRENTON.

One Is Fished Out of the River Which Flows Through the Center of the Town.

Catching alligators is not common amusement in Trenton, N. J., but one was caught the other day in Asspink creek, which makes its way through the center of the town. A boy playing in the stream near where it flows under Broad street spied something that looked like a big lizard on a water-soaked log. He was frightened and called to Chief Engineer Purdy of the trolley road, who happened to be near. Purdy investigated and found that the lizard was an alligator three feet long. He got a rope and a pole and managed to slip a noose over the body of the reptile, and after a hard struggle he landed it. How the alligator managed to get into the creek is a mystery.

A Canadian Joke.

The Toronto Globe says the Boer army is slippery because of de wet.

LINGER LONGER

Brooklyn Young Woman's Long Vigil for Gentleman Friend.

Stands on Sidewalk All Day Hoping for a Chance Meeting with the One She Desires to See—Suddenly Disappears.

Persons in the office buildings on Park row, New York, had their curiosity aroused the other day by a slim young woman who stood at the edge of the sidewalk opposite Frankfort street all day. She wore a blue skirt, a white shirt waist, with a light blue tie, and a plain straw hat. She was first noticed standing there about 8:30 o'clock in the morning. When it was seen two hours later that she was still standing in the same place people began to talk about her. After that a rather close watch was kept upon her. Every now and then some one at a window would announce "She's still there," and up to 4:30 o'clock in the afternoon she was not seen to move from the spot where she was standing in the morning. During the day several persons stopped and engaged her in conversation. One old woman in particular stood talking with her for half an hour. She answered every one—reluctantly, but never changed her position. At 4:30 o'clock a Chicago Inler Ocean correspondent spoke to her, telling her that people had seen her waiting all day and asked if he could be of any service to her.

"Oh, no," she said, smilingly; "I'm simply waiting for a friend of mine who works in a big factory in Frankfort street. Once before I waited for him here and met him at noon."

"Did he expect you?"

"Oh, no. He was just going to lunch and saw me standing on the corner. I live in Brooklyn, you know," she continued, "and I came over to-day to look at the stores. At first I thought I might see him going to work. Then I thought he might come along at noon time, but he didn't. I had waited so long then that I concluded to wait until evening."

"Are you not hungry and tired?" was asked.

"No, indeed," she answered. "I had my lunch, and I've been so interested watching the people that if I am tired I haven't noticed it."

At five o'clock she had disappeared. No one could be found that had seen her go away.

SUPPLIES FOR AMERICANS.

The Substantance Department Has Made Preparations for a Long Conflict.

The United States has made preparations for an extended campaign in China. It is hoped, however, that the supplies sent there will not all be needed. A summary of the supplies sent to the shipping port of Taku shows a gratifying state of preparedness and a determination to provide every necessity for American soldiers operating there. The list is as follows: Blankets, 16,000; blouses, lined, 16,000; canvas caps, 5,000; fur caps, 4,000; canteen drawers, 40,000; fur gaitlets, 10,000 pairs; wool gloves, 23,000 pairs; campaign hats, 12,000; artillery overcoats, 15,000; cavalry overcoats, 3,500; infantry overcoats, 11,000; gaiters, 16,000 pairs; ponchos, 12,000; shirts, 25,000; shoes, 20,000 pairs; cotton stockings, 44,000 pairs; woolen stockings, 36,000 pairs; kersey trousers, 16,000 pairs; mounted trousers, 3,500 pairs; woolen undershirts, 27,000; canvas overcoats, 1,000; hat cords, 17,000; conical wall tents for commissary department, 3; wall tents for commissary department, 5; hospital tents for medical department, 500; asbestos tent rings, 5,000; tent stoves, 1,400; tent stovepipe joints, 7,000; "Veto" stoves, 1,000; fire pots with parts, 1,500; axes, 1,000; ax helves, 3,000; hatchets, 1,000; camp kettles, 500; mess pans, 1,000; pick-axes, 500; pickaxe helms, 1,000; shovels, 500; spades, 150; tents, 500; wall tents, 200; tent pins, 18,000; drawers, 1,000 pairs. These supplies were shipped from San Francisco. Complete supplies for 5,000 men were also shipped from Manila.

SAVED BY THE X-RAY.

Soldier Supposed to Be Crippled for Life Is Made Whole at San Francisco.

Modern science has just secured a new triumph in the hospital at the Presidio, San Francisco, where a man supposed to be crippled for life has been made whole. Harvey O. Robe is the son of Col. Robe, recently promoted to command the Ninth United States infantry, succeeding Col. Lisicum, who was killed at Tientsin. The young man went to Manila as assistant quartermaster in the regular army, and last spring was struck by a Filipino bullet, which hit some hard substance on the ground and crumpled, striking his cartridge belt and burying the fragments of lead of two other bullets, together with its own bulk, deep in the sciatic cavity. Totally disabled for duty, young Robe returned to San Francisco and went under treatment at the general hospital, where vain efforts were made to locate the foreign substance. Finally by the aid of the X-ray it was located, and Chief Surgeon Gerard was enabled to send his instruments straight to the spot and extract the numerous fragments of lead, varying from large, solid lumps to tiny fragments. The wounds have now healed perfectly, and Robe has been discharged.

Chinese Country Roads.

Country roads in China are entirely unimproved.

STUDY FOREST FIRES

Important Investigation by the Division of Forestry.

Effort to Learn What to Expect from Fire and How to Deal with Burnt-Over Areas—Seed Storing of Trees.

An investigation of forest fires and reforestation on burnt areas is now being pursued by the division of forestry of the department of agriculture through Prof. C. S. Crandall, lately at the Colorado experiment station at Fort Collins. This work, which Prof. Crandall began some years ago as a collaborator of the division, will be carried on chiefly in the northern part of the state, where the prevalence of Lodgepole pine makes the conditions very different from those in the south. The investigation is an important one, for until the forester knows what to expect from fire and how to deal with burnt-over areas, he can do little in a region where burning has been so extensive and is still as common as in Colorado.

In this investigation the examination of the first stages of reforestation will be made on areas of which some were burned over 13 years ago, and on which Prof. Crandall has already made surveys and recorded progress at different periods since. In the case of the old fires of which there is no record, the date of burning can usually be determined by the age of the trees which came up after the fire, and the necessary surveys and measurements can then be made. Special attention will be paid to the causes which make the cones of the Lodgepole pine open and distribute their seed. These are not yet understood, and in view of the tree's habit of storing its seeds in the cone, often for many years, and setting them free when killed by fire, are very important.

Prof. Crandall will have four assistants and will begin his examination in the Medicine Bow range. From there he will work down the Continental divide to the neighborhood of Long's peak.

CAN RENEW OXYGEN IN AIR.

French Chemists Demonstrate Properties of Bioxide of Sodium.

Highly interesting demonstrations of the properties of bioxide of sodium are being given before the French Academy of Science. Bioxide of sodium is found to possess the property of renewing the oxygen of the air that has been breathed and in absorbing carbonic acid gas given off. Thus, with an apparatus containing the sodium, shown by Des Greys and Halthouard at the academy, a diver can remain under water and walk about without having the air renewed by the pumping apparatus at present employed.

Moreover, by the means of the new apparatus mines will be able to penetrate into poisonous gases and foul air and firemen into smoke without fear of asphyxiation. It will also render practicable submarine boats.

Ample proofs of all that is claimed for it were given at the academy. Two men put on diving dresses from which all air was excluded and remained inclosed two hours. Afterward the same men remained under water in the Seine during half an hour. The experiments are creating the greatest interest in scientific circles.

WEARS OVERALLS IN PULPIT.

A New Jersey Minister Is Robbed of His Clothes and Money.

Rev. Mr. Conant, pastor of the Reformed church at Lodi, N. J., astonished his congregation one Sunday by mounting the pulpit in a pair of blue overalls a foot too short for him and wearing the coat of a small boy. The clergyman, who has a dignified-looking face, presented such a comical look that a titter ran around the church. Then the sexton passed the word about that it was not the pastor's fault. A thief during the night broke into his house and took his clothes, his watch and \$71 in cash. Then the burglar got into the church and took the Bible from the lectern, wrenched a gold cross from it and threw the book into the street.

"Your pastor is oddly attired," he told his congregation after the service, "but I either had to take my little boy's playing clothes or dress in my pajamas. I settled on the boy's clothes as being more seemly."

Magnetism and the Eye.

It has been discovered that the crystalline lens of the human eye is slightly diamagnetic or subject to magnetic repulsion. As astigmatism—the commonest cause of defective vision and the most frequent excuse for spectacles—is merely a slight distortion of this lens, it has been suggested that treatment with a powerful magnet properly applied may result in forcing the lens into proper shape, or at least in greatly remedying the distortion.

The Right Point of View.

One of the lady journalists says she never saw a very beautiful woman who was also a very happy one. Then, declares the Chicago Times-Herald, she never saw a beautiful woman in front of a mirror.

British Law of Libel.

The highest court of appeal in Great Britain has sustained the decision that a circulating library can be held peculiarly responsible for libelous statements contained in any of the volumes which it circulates.

Coal in China.

In China there is 26 times as much coal as in all Europe.

WHEN MADAME WAS AWAY.

A Woman Overhears the Plans of a Man Whose Wife Was in the Country.

Two men sat behind the vines of a secluded veranda to smoke their after-dinner cigars the other evening. As they smoked they grew confidential and told each other some secrets that were burdensome to their comfort. A woman sat within the house, near a window that opened on the veranda. It was a warm night and the window was open. But the woman was supposed to be reading, and the men forgot her existence. Snatches of the conversation floated in to her, and as the theme was particularly interesting to femininity the woman listened. It couldn't be wrong, she argued, because one man was her husband and the other was her dearest friend's husband. Their talk amused and interested her so much she told it to a friend, and that person repeated it in a newspaper office, and so it was a secret no longer, says the Buffalo Express.

The theme of the men's conversation is not an unusual one in Buffalo this month. Dozens of other men could take part in it if they chose. The dearest friend's husband was trying to keep house while his wife and the children were in the country for a few weeks.

"You know, Clifford, I can make a cup of coffee and broil a steak as well as the next person, but when it comes to washing dishes, I flunk, that's all. How the women keep the dishes in shape is more than I know. Then it beats all how untidy the bridegroom gets. I can't understand it, for I never had any difficulty in keeping my shoes, ties, collars and those kind of things in their place before. I suppose I forgot to put them away now, that I have the breakfast to cook."

The woman listening laughed, for she knew all about certain bags and boxes which her dearest friend had in which she stowed away her husband's washed neckties and handkerchiefs and kept his linen straight. She remembered, too, her friend telling her she had left everything in applying for Herbert. "He'll get along nicely," the little woman had said, "for the flat is in perfect order, and I've left a supply of cooked things and have told the milkman and baker to call every morning in time for breakfast."

"It wasn't so bad until I had made my first breakfast," the voice on the veranda went on, "that was not a success, for after I had made the coffee and put on the eggs I sat down to read the paper a minute. What's a minute when you want to find out about the situation in China? But it was long enough for the coffee to boil all over the range and the eggs to get as hard as bricks. What coffee was left tasted queer, and I hadn't time to wash the dishes. I was sure I had used only one plate and a cup and saucer, but there was enough for half a dozen persons. After I tidied up the kitchen I thought I would look over the evening paper, when I remembered I hadn't made my bed yet. I could have sworn burglars had been in the room, for there were more shoes and neckties and things lying around than I could wear in a week. I didn't begin to put them away! Marion has one of those long, narrow boxes for my neckties, and I tried to straighten the things out and put them away as I usually keep them, but it took too long."

Again the woman on the other side of the window laughed softly, for she remembered her friend telling how Herbert always tried every pair of shoes he owned before he could decide which ones to wear and how his necktie box had to be tied every morning as regularly as the bed was made.

"It is two weeks now since Marion went away," the man continued, "and though I have written her that everything is all right and that I enjoy housekeeping, I shall be mighty glad to see her back. Every fish in the house was used nearly a week ago, and I have given up trying to wash more than the plate and cup I need for breakfast. After this I am going downtown for breakfast and I am going to send for the washerwoman to come and clean up the house. I told Marion it wasn't necessary to have anyone come in; that I could keep things going for a month all right. Our flat is so small there never seemed much to do, but either I am too busy at the office or I haven't felt so well as usual, for this house-keeping beats me."

"You'll be glad when it is time for your wife to come home, eh?" said the friend, as he knocked the ashes of the end of his cigar, and the woman who listened made up her mind she would write her friend that very night; and tell her how glad Herbert would be to see her and the children.

Force of Gravity Not Always Same.

It has been found that the force of gravity at sea level is not constant at all points on the earth's surface—that is a pound is not literally a pound everywhere. In some recent observations with delicate instruments C. A. Almonetti has found that in 11 towns of Italy the earth's attractive force varied by one part in 10,000. This means that a standard pendulum (29.99 inches in length), which beats seconds, would lose 26 minutes each year by reason of this apparently slight difference in the force of gravity in these towns of Italy. A ton of gold, if weighed on a spring balance, would differ in value by the loss of weight theoretically by \$50 at localities where the gravity was a minimum. The explanation given of these variations of gravity is the unevenness of the material of the earth's crust.—Little Chronicle.

Detectives on Wheels.

While Queen Victoria was in Ireland, whenever she went out driving her carriage was followed by six detectives on bicycles. It is said that their business was to look out for dynamite.—Little Chronicle.

OUR RIGHTS IN CHINA

Translation and Study of the United States Constitution.

An International Understanding Brought About Through Transactions Between Our Government and Denmark.

The relation of the United States to the responsible government of China is, in any respect, different from that of any other nation. At the present horrible crisis all is confusion and chaos. In the future, if a lasting settlement is to be made, it will be full of difficulties, but America holds a place of vantage. The following paragraphs explain, in part, why this is so—why the high officials of China understand us better than they do any nation of Europe. When the first Chinese legation to the United States settled in Washington it was accompanied by a very intelligent and cultivated attaché, by name Tsai Shih Yung. He came of an ancient Chinese family, one of whose members had been prime minister of the empire a very unusual post for a pure Chinese to hold under a Manchu Tartar dynasty. He was a graduate of Dr. Martin's college at Peking and had also taken his bachelor's degree in the Chinese examinations. During his residence in Washington he formed a close friendship with Dr. Edward S. Holden, then one of the assistant secretaries of the United States naval observatory. In one of their conversations Tsai was asked the object of the coming of his legation. "Why, it is to make a treaty with your country," "And how is a treaty made?" "It is a written agreement between your president and our emperor." "Nothing more?" "No, nothing more than this." It transpired that Tsai, and his minister as well, was totally ignorant of the treaty-making functions of the senate, and they were thrown into consternation when they heard the story of the rejection of the treaty with Denmark by the senate after President Grant had arranged for the cession of the Danish West Indies, and after the confiding Danes of St. Thomas and Santa Cruz had formally voted to accept American citizenship.

Out of this conversation, says the New York Sun, grew a project to translate the constitution of the United States into the Chinese language. For many months the Chinese and the American met daily. Each provision of the constitution was carefully explained and discussed and then written down, with a commentary on a subsequent day the Chinese translation was rendered back into English and again discussed until all was clear. Doubtful points were referred to Frederick W. Whitridge, Esq., of the New York bar, in writing, or occasionally to Mr. Justice Bradley, of the supreme court. Finally the document was completely and satisfactorily translated with a marginal commentary and sent as an official dispatch to the young-li-yamen in Peking. A copy of it was deposited by President Holden in the library of the University of California, where it now is. On Tsai's part it had been a labor of love and on his return to China it won for him official advancement in rank and place. His American coadjutor was glad to give a portion of his time every day for nearly a year to this public service which has resulted in making the high officials in Peking understand the United States of America as they understand no other country. They are themselves a literary people and are used to relying on the written word. They know the organization of Great Britain or of Germany in a very different way from that of our own country, and we are, accordingly, trusted as no other country is.

Our opportunities at the present crisis are unique. Every European government is distracted by all the high officials at Peking—by those friendly to foreign inventions as well as by those who hate and despise the foreigner and all his works. When the time comes to adjust a final and lasting settlement for the future it is in the power of America to take a high stand. The constitution of our government is understood. It is known that we desire no territorial acquisitions. We desire and we mean to have the freest opportunities for trade, and above all things the fullest protection for our citizens in foreign parts. It may be necessary for our troops to join with those of Europe and Japan in a punitive expedition. It may even be necessary to raze the walls of Peking to the ground, to plow the site and sow it with salt, as the Tartar Chief Jehiz Khan was used to do with the rebellious cities of Bokhara and Turkistan. All this will be understood as a deserved punishment for acts which even the Chinese cannot defend. But in the final adjustment of relations America may hold a unique place; and this position of moral vantage should be safeguarded in all our acts.

A Steamer's Land and Sea Trip.

The engineering feat of transporting a steamboat of 350 tons from Scotland to Lake Titicaca—the most elevated lake in South America—has just been accomplished. The vessel is the Goya. It was constructed in Scotland and then taken in sections to Mollendo, Peru, from which place it was carried in 22 cars to the railroad crossing the steep sides of the Andes to the lakeside, nearly 13,000 feet above the sea level. There the sections of the vessel were put together again and the boilers and engines installed.—London Daily Mail.