

SCIENTIFIC SCRAPS.

Three pounds of muriate of lime and one pound of snow is the coldest mixture known to science.

In examining the heart in a number of the dying, Bouchat found the longest interval between the pulsations was six seconds.

At one thousand yards the rifled gun is eleven times, and at two thousand thirteen times, more accurate than the smooth bore.

A man may go into a temperature of three hundred degrees of heat without having the heat of his body raised more than two or three degrees.

A diamond can easily be consumed by being placed in a cavity of charcoal and urging upon it the flame of a spirit lamp by means of a stream of oxygen.

Waves of sound go only 377 yards in a second. The earth itself travels 184 miles. Light, 10,000 times faster than that; electricity, half as fast again as light.

The common camphor of the shops is obtained from the camphor laurel by the process of refining. The unrefined camphor much resembles light-brown sugar.

In experiments to ascertain the depths beneath the surface of the sea light could penetrate, it was found that twenty-five fathoms was the maximum of visibility. And when the temperature of the water was highest the water was clearest.

Naphtha, or fluid petroleum, is, according to the opinion of many chemists, formed by the action of heat on bituminous matter; but others maintain that it is generated by the action of water. Large quantities of naphtha are obtained from the distillation of coal.

Mr. C. Shaler Smith, who has had much experience in testing the violence of wind-storms, doubts whether the pressure of a direct wind or gale ever exceeds thirty pounds per square foot. The only exception to this maximum was an unusually violent storm at East St. Louis in 1871, when the wind blew over a locomotive. In this instance the pressure must have been ninety-three pounds per square foot.

How the President's Room is Cooled.

The machine by which President Garfield's room is cooled was furnished by Mr. Jennings, of Baltimore. It consists of a cast-iron chamber, about ten feet long and three feet wide and three high, filled with vertical iron frames covered with cotton terry or Turkish toweling. These screens are placed half an inch apart, and represent some three thousand feet of cooling surface. Immediately over these vertical screens is placed a coil of inch iron pipe, the lower side of which is filled with fine perforations. Into a galvanized iron tank, holding 1,000 gallons of water, is put finely granulated or shaved ice. This water is sprayed upon the sheets in the lower tank constantly. In each end of the iron chamber are openings thirteen inches square. To the outer end of this chamber is a pipe connecting with an outdoor air conductor. To the opposite end is connected a similar pipe leading into an ice chamber at its top, and from the bottom of the same a pipe leads to a small exhaust fan, and from the fan the now cold and dry air is forced direct into the President's room through a flue some twenty feet in length. Air received at ninety-nine degrees temperature is supplied at the rate of 22,000 cubic feet per hour at the register in the President's room at fifty-four degrees, and with the windows and doors open the temperature at the President's bed (twenty-five feet away) is maintained steadily at seventy-five degrees day and night.

The Era of Advertising.

Properly regarded the advertising columns of a newspaper are among the most important, for no man really becomes acquainted even with the news of the day until he has thoroughly perused the advertisements. They are the pulse of business and universal activity. They contain not only rare specimens of human idiosyncrasies, but afford a view of life in every possible phase. They aid the arts and sciences, and stimulate trade by supplying an exchange in which buyers and sellers constantly and conveniently meet. They speak of change, sometimes exciting a smile, sometimes a tear. To the sick man they convey a promise of health; to the poor man they hold out a hope of wealth; the pleasure seeker is posted in amusements; the book buyer learns the title and price of the new books as they appear; the house hunter reads of a desirable and eligible tenement and the house owner secures a tenant; the traveler is informed of the great superiority of every route over every other route, the unemployed of employment in the various branches of industry; in fine, every imaginable want is suppositiously supplied by the advertising department of a newspaper. — Philadelphia Transcript.

Boys will ultimately learn that it is best to let a bumblebee.

TOPICS OF THE DAY.

One of the puzzles of pauperism is now awaiting solution in London, where, in spite of the fact that a much larger volume of trade is transacted than a year ago, the number of paupers was considerably increased. The Globe says: It is a noteworthy circumstance that during the time of acute trade depression London compared very favorably with other divisions in the matter of pauperism, and the theory was started that this comparative immunity resulted from the very multifarious nature of the various other divisions, with the exception of the York and the West Midland.

An epidemic disease of a peculiarly deadly nature, which carries off horses and cattle by the thousand, and claims also its human victims yearly among the population of the capital, has made its appearance in more than one district of St. Petersburg and Novgorod, and is spreading with alarming rapidity. Horses, which, after land, are the most valued property of the peasants, are dying by the score, and many cases of illness have occurred among the population of the infected villages. The local authorities are helpless, owing partly to the want of efficient doctors and veterinary surgeons, and partly to the fatalistic tendencies of the peasants, who, trusting all to Providence, refuse precaution, and sell in the neighboring villages the skins of the beasts that have died of the disease.

According to the recently published report of the mine inspectors of the anthracite region, the number of persons killed by accidents in the coal mines of Pennsylvania during the year 1880 is 202, while 671 were severely injured. Many of the latter have died of their injuries since the report was made, and others are crippled for life. In the rush and hurry of the market very little heed is given to those who fall in the grim struggle for bread, yet their sudden removal from the ranks of toil swells the long list of widows and orphans and scatters want through many a hamlet. Most of those who fall victims to the perils of mining are stricken down without a moment's warning, and their blackened and mangled forms are carried back from their work to the homes which they left a few hours before so full of life and hope.

A scene both ludicrous and ghastly was presented in a recent case of attempted suicide in Columbus, Ohio. The woman who wished to end her life hired a little boy, ten years old, to assist her in the desperate deed. She succeeded in breaking, not her neck, but her nose, and at the subsequent judicial investigation that was made, the boy testified as follows: "She got on the box, and I asked her for the ten cents before she put her head in the rope. She wouldn't give me the ten cents, and I let her go, and she didn't put her head in. She hollered and fell down, and then you men came running and I got out of the way." One cannot help wondering how the friends of the little fellow, and indeed he himself, after he had grown older, would have felt had the woman succeeded in her design; and also the probable effect of the affair upon the child's moral sensibilities. The case is probably unique in the annals of crime.

An indignant head-clerk in the Baltimore postoffice wants the newspapers to convey to the public his emphatic protest against the latest popular mania—confined as yet to sentimental writers of billet doux—namely, the sticking of postage stamps upon unusual and out-of-the-way parts of envelopes. There is, it seems, a "postage-stamp code" of flirtation, and each position of a stamp expresses some particular sentiment. Now, the law allows the stamp to be put anywhere on the envelope the sender may please. But its position is a matter of importance to the canceling clerks. "As long," says the Baltimore official, "as the stamps are in the orthodox place—the upper right-hand corner—they can work away like bees and get through quickly, because the motion from the ink-pad to the stamp is a continuous one; but just as soon as they have to hunt around over the letter to find where the stamp is wafered, why, they can't get along near so fast. Please hint through your paper that every letter that comes here not stamped with a single stamp in the right-hand upper corner we use to make paper chickens out of."

The Washington World and Citizen Soldier says that there being now pending in the war department great numbers of volunteer pension claims which cannot be satisfactorily verified for want of information, which missing records of discontinued volunteer commands would afford, and it having transpired in many instances that officers of the late volunteer forces have still in their possession or under their control

books and other records pertaining to their corps, divisions, brigades, regiments and companies, Adjutant-General Drum has issued a circular calling attention to the fact that all such books and records should be deposited in the adjutant-general's office, and earnestly requesting that they be forwarded without delay to the adjutant-general at Washington. No expense, other than postage or proper express charges (when the packages exceed four pounds, the limit for mail parcels), can be paid by the government. In the interest of the great number of widows, orphans and disabled soldiers whose claims are involved, the newspapers of the country are requested to give the substance of this circular the greatest publicity.

A Chinese Newspaper.

There are two Chinese newspapers in this city, both weekly. In company with Interpreter Rowe a visit was recently made to both offices. The Oriental (Wah Kee) was first visited. The Wah Kee establishment was found in charge of its proprietor, publisher, editor, pressman, compositor, bookkeeper, reporter and office boy, Yee Jenn, who was discovered seated at a table in his sanctum busily engaged in forming characters on a slip of paper. A small, fine brush, not much larger than an ordinary penholder, was dipped in a peculiar black ink, and the writing, or printing, performed with great dexterity and accuracy.

In answer to questions Yee Jenn stated to the interpreter that he was fifty years old; that he had been in the country about seven years and that he first began publishing the Wah Kee nearly six years ago. He had had no previous experience as a journalist, and prior to beginning his newspaper had in operation a job printing office, which he yet maintained. Of the 35,000 characters in the Chinese language he could make about 8,000. As he had never been able to import type from China, all the characters in his paper were formed by hand. The Wah Kee had 1,000 subscribers, some circulation in China and was issued at ten cents per copy or five dollars per year. He got much of his matter from exchanges. What appeared in local English papers of interest to his readers was translated by an English-knowing Chinese friend. Although seven years in the country Yee Jenn had no knowledge of the language; and he said that but about 200 of Chinese residing in this city were able to read and understand English.

The latest number of the Wah Kee was presented to the writer by Yee Jenn. It was a four-page sheet and had five columns to a page, the first page, excepting the publisher's announcements, being occupied by advertisements, mainly double-columned. The news matter of the Wah Kee, commencing at the right hand column of the fourth page, was four columns of local items, succeeded by a column of "ads," then a department containing news from Peking, followed by another containing news from Canton; next an editorial against the use of opium, and then a presentation of the news from various countries, after which come advertisements. — San Francisco Post.

Printing the Great Civilizer.

Until printing was very generally spread civilization advanced by slow and languid steps. Since the art has become cheap its advances have become unparalleled, and its rate of progress vastly accelerated. It has been stated by some that the civilization of the Western world has resulted from its being the seat of the Christian religion. However much the mild tenor of its doctrines is calculated to assist in producing such an effect, that religion can but be injured by an unfounded statement. It is by the easy and cheap methods of communicating thought from man to man, which enable the country to sift, as it were, its whole people, and to produce, in its sciences, its literature and its art, not the brightest efforts of a limited class, but the highest effort of the most powerful mind among a whole community. It is this which has given birth to the wide-spread civilization of the present day, and which promises a future yet more prolific. Whoever is acquainted with the present state of science and the mechanical arts, and looks back over the inventions and the civilization which the fourteen centuries subsequent to Christianity have produced, and compares them with the succeeding four centuries following the invention of printing, will have no doubt as to the effective cause. It is during these last three or four centuries that man, considered as a species, has commenced the development of his intellectual faculties; that he has emerged from a position in which he was almost the creature of instinct to a state in which every step in advance facilitates the progress of his successors. In the first period arts were discovered by individuals and lost to the race; in the latter the diffusion of ideas enabled the researchers of one class to unite with the observations of another, and the most advanced point of one generation became the starting-point of the next. — Printers' Circular.

MORAL AND RELIGIOUS.

Fidelity.

Never forsake a friend. When enemies gather around—when sickness falls on the heart—when the world is dark and cheerless—is the time to try true friendship. They who turn from the scene of distress betray their hypocrisy, and prove that interest only moves them. If you have a friend who loves you—who has studied your interest and happiness—be sure to sustain him in adversity. Let him feel that his former kindness is appreciated, and that his love was not thrown away. Real fidelity may be rare, but it exists—in the heart. They only deny its worth and power who have never loved a friend or labored to make one happy. The good and the kind, the affectionate and the virtuous, see and feel the heavenly principle.

Religious News and Notes.

There are 887 Episcopal churches in London.

Reverend Dr. Daniel Sted, a prominent minister of the Lutheran church, died at Gettysburg recently.

There are 324 Baptist churches with about 29,000 members in Florida, connected with which are 600 Sabbath-schools.

The Mormon missionaries who have been laboring to make converts in Germany are about to be expelled from the country.

In thirty-seven years the Church of England has erected 2,581 churches, and expended on church buildings \$200,000,000.

Bishop Shanahan, of Harrisburg, a few Sundays ago in Philadelphia confirmed 1,620 persons, mostly children, who attend five of the Catholic churches in that city.

The synod of the Reformed Presbyterian church (Old Side) has been held in Pittsburg, the Rev. T. P. Stevenson being chosen moderator. The receipts for foreign missions were reported at \$12,209.

The Methodist Episcopal church, South, reports 3,673 traveling preachers, a gain of 113, and 837,831 members, a gain of 15,355. Of these members 1,081 are colored and 4,981 are Indians. The collection for missions amounted to \$152,762, an increase of \$23,048. The largest conference is the Virginia, which has 57,068 members, 189 traveling, 13 superannuated, and 173 local preachers.

The twelfth annual report of the Telugu mission of the American Baptist union states that in connection with the Ongole station there are thirty-three ordained preachers, thirty unordained, five colporteurs and eight Bible women. During the year twenty-six new churches have been established in as many different villages. The present number of church members is 15,692. Nearly 3,000 were baptized during the year.

The statistical report of the United Presbyterian church for the past year shows that there are 704 ministers and 814 congregations. Eleven congregations were organized and five dissolved. Mission stations are eighty-two, with twenty-six new ones during the year. The total membership is 82,937, a net gain of 818. Whole number of Sabbath-schools, 768, a gain of eight. Number of scholars, 72,010, a loss of 1,116. The total contributions to all purposes is \$853,541, an increase of nearly \$27,000; the average per member is \$10.74, an increase of thirty-one cents.

An Alpine Accident.

A tourist who recently made the ascent of the Ostler Spitze, one of the loftiest of the Austrian Alps, describes an accident of which he was the witness. The party, comprising two tourists and two guides, were descending, when, the writer says, I heard a shriek of terror from Dangi (one of the guides) which almost unmanned me. Turning my head I beheld Dangi and his tourist flying with almost lightning rapidity over a lofty precipice, having been carried off their feet by an avalanche. This falling mass of snow had become detached above our heads, and carried the two men behind us down an abyss fully 500 feet in depth. It had been quite impossible for them to avoid the avalanche, and as they were connected by ropes both were hurled below, apparently to certain death. Reinstadler (the other guide) and I made all possible haste down. We found Dangi lying motionless and insensible in the snow. He had received a terrible wound on the head. The tourist escaped with a few bruises and contusions. Reinstadler and I carried Dangi to the Payer chalet. After a time he was brought to his cottage. His condition is serious, but there is ground, I hope, that he may recover.

Some years ago a bankrupt Michigan editor offered his creditors a warrant for 120 acres of land in satisfaction of their claims, and they refused it, preferring to take other property valued at \$250. The despaired 120 acres now yield the former bankrupt editor an annual income of \$60,000 or more from mines.

THE FAMILY DOCTOR.

SLEEP.—Although sound sleep is considered a thing to be desired, yet no sleep is healthy from which we are not easily roused.

PROTECTION AGAINST SUNSTROKE.—A piece of silk, which is a non-conductor, worn as a lining of hat or bonnet, is a safe protection against sunstroke.

HOT WATER FOR THE HEART.—In a letter to the Lancet Dr. A. Paggi records the following observation: He states that in Paris he saw a case in which, under the inhalation of chloroform, the heart ceased to beat, and artificial respiration for ten minutes failed to restore circulation, when Dr. Labbe dipped a large cloth in boiling water and applied it to the region of the heart, with the result of immediately restoring the action of that organ.

HOW TO MAKE A POULTICE.—Dr. Brunton, in Brain, the new London periodical, gives the following useful hints on this subject: The common practice of making poultices by mixing linseed meal with hot water and applying it directly to the skin is quite wrong, because if we do not wish to burn the patient we must wait until a great portion of the heat has been lost. The proper method is to take a flannel bag, the size of the poultice required, to fill this with the linseed poultice, as hot as it can possibly be made, and to put between this and the skin a second flannel, so there shall be at least two thicknesses of flannel between the skin and the poultice itself. Above the poultice should be placed more flannel, or a piece of cotton wool, to prevent it from getting cold. By this method we are able to apply the linseed meal boiling hot, without burning the patient, and the heat gradually diffusing through the flannel affords a grateful sense of relief, which cannot be obtained by other means. There are few ways in which such marked relief is given to abdominal pain as by the application of a poultice in this manner.

A Stage Coach Robbery in Colorado.

One of the passengers on a stage coach which was halted by a footpad near Del Norte, Col., tells the story of the robbery as follows:

There were eight men and one woman inside the coach, and four men besides the driver on top. I was among the latter, sitting beside the driver. It was about midnight, I should think, and about twenty miles from Del Norte, when we were halted. It was very dark, and we were just turning a bend in the road when the word came to halt. There was only one man visible, to the left and about ten feet ahead of the coach. The robber was standing behind a piece of canvas stretched alongside the road, and had a revolver pointed directly at myself and the driver. He told us calmly to deliver ourselves and he would be our arm us, but that if we made a noise he would shoot. I was on the side next to the robber, and I immediately got down from my seat, followed by the driver. After we got down, the robber came from behind the canvas and placed over our heads a cloth cap, which came down to our shoulders and completely blinded us. He then ordered us to stand still, and himself went to the stage door and ordered the occupants to come out, one at a time, and take their positions in line alongside the driver and myself.

He told the passengers not to make any unnecessary movements, as they were all covered by the guns of his men in concealment, and their lives were in jeopardy. After the passengers were all in line, he put caps similar to mine over their faces, tied their hands behind their backs, and then proceeded to rifle their pockets. He took nothing but money. Everything else he would replace just where he got it from. I do not know how much money he got. From me he got about \$140, which he took from my pocketbook, replacing the pocketbook after taking the money out. He had a light burning in front of the canvas, behind which was a reflector, which shed the rays directly in our faces. He occupied about fifteen minutes in the search. He then ordered us to kneel, which we did, all in a row, and then he proceeded to rifle the mail bags. The woman, at his bidding, held the light for him while he did this. He opened only two sacks, I believe. He kept us kneeling about half an hour. He kept talking all the time, using good language. In fact, during the whole time of the robbery he was very gentlemanly.

He had a soft, mellow voice. He was not nervous or quick, but did the work in a businesslike manner. He was a man nearly six feet in height, smooth face, had a heavy, light mustache, and would weigh perhaps 165 pounds. He had on a dark hat and coat, and was not disguised in any way. After he had robbed the mail he skipped off into the darkness. When we found he had left we removed our caps, untied each others' hands, picked up the remnants of the mail bags and the mail, and proceeded on to Alamosa. It is my opinion now that he did the work alone, and that his comrades being in the bushes was all a hoax.

CLIPPINGS FOR THE CURIOUS.

It is said that white cats with blue eyes are always deaf.

According to Dr. Gunther there are 7,000 species of fish now known to men of science.

According to Aristotle large ears are an indication of imbecility, while small ones announce madness.

Among the Indians near the Amazon there are no words for numbers, and a similar want of arithmetical power.

The Greeks considered purple and white flowers most acceptable to their dead. Ribbons and locks of hair were also deposited in the sepulchres.

Australian savages poison their spears by dipping the blades in the mortified dead bodies of their enemies. All wounds from them are certain death.

The Hottentots have a smaller, shorter and less arched bony palate than other races, and their pronunciation is singularly like the clucking of a turkey.

Lucretius, the Roman satirist, says oysters fatten during lunar augmentation, and that onions throw out buds in the decrease of the moon and wither at its increase.

The ancients greatly esteemed camels and dromedaries flesh, especially their heels. Donkey flesh was in high repute, and pigs were slaughtered with red-hot spits that the blood might not be lost.

A fabulous story of the manufacture of glass is that the Israelites set fire to a forest, and the heat, becoming intense, made the nitre and sand melt and flow along the mountain side, where it cooled as glass.

The influence of a change of food on animals is shown in the case of amphirous flies, that are larva for eight or ten days, pupae for a fortnight, and perfect insects in about the same length of time, living six weeks in all. A pupa deprived of food underwent no change and remained six months in the same state.

Farm Training.

The farm is the best place in the world to raise boys. Most of the successful business men of cities were farm boys. The habits formed of early rising, constant employment of body or mind in a useful way, economy, truthfulness, honesty and virtue, are just what are needed to make sterling, go-ahead, successful men in all departments of life.

A gentleman sent the following letter to one hundred men, standing at the head of financial, commercial, professional and educational interests of an Eastern city:

MY DEAR SIR: I desire to find out, for the benefit of the boys, how the leading men of this city spent their boyhood. Will you be kind enough to tell me:

- 1. Whether your home for the first fifteen years of your life was on a farm, in a village or in a city, and
2. Whether you were accustomed during any part of that period to engage in any kind of work when not in school?
I should be glad, of course, to have you go into particulars as fully as you are disposed to do; but I do not wish to tax your patience, and I should be greatly obliged for a simple answer to these two questions:

Eighty-eight replied. Of these eighty-eight men twelve spent the first fifteen years of their life in the city, twelve in villages and sixty-four were farmers' boys. But of the twenty-four who lived in villages and cities one-fourth were practically farmers' boys, for they lived in the vicinity and did the work of farmers' boys. One of these village boys said: "I learned to hoe, dig and mow, and to work whether I liked it or not. I went to school in winter, and wrought nights and mornings for my board." Another said: "I used to work away from home on a farm in the summer and fall. In the winter, when going to school, we three boys used to work up the wood for winter use." This was the story of others. So that twenty out of eighty-eight—four-fifths—had farm-life training.

Did the few boys on the city list have an easy time? One studied law when out of school. He had not much play. The others were poor boys, children of the working classes, in needy circumstances, accustomed to hard work from their earliest years.

One said he was "generally employed in summer months and during vacations in doing any work that of fered." Four were newsboys. One said "the last of connection with the press he earned one hundred dollars before breakfast." Another, that "he paid his own way since eight years of age, without any assistance except board from my eighth to my eleventh year."

Where are the boys to-day who were at the same time going to school and amusing themselves? Where are they? We know who the ninety-six per cent. of successful business men were—farmers' boys, or poor and hard-working town boys.