

Science Invention

Only 54 per cent of Germany's young men are fit for military service. Dr. Stricker finds that heart disease has increased 300 per cent in a decade.

The hour of death has been recorded by a leading European physician for 2,880 persons of all ages. Deaths are not numerous between five and six o'clock in the morning and fewest between nine and eleven in the morning. The death rate is not large between 10 a. m. and 3 p. m., the fatal hours being from 3 to 6 a. m.

Human power and machine power are found by Prof. Schmoller of Berlin University to have been equal in Germany in 1850, when the population was eighteen million, one-half being laborers. In 1885, with a population of fifty-six million and the same proportion of laborers, the machine power had reached six times the manual, or, according to some authorities, ten times.

Carl Hagenbeck, the animal dealer, of Hamburg, has a number of very curious crosses between the lion and the tiger. One of these remarkable animals is now four years of age. He has the head of a lion and the striped body of a tiger, although the stripes are not as distinct as in a true tiger. His father was a Senegal lion and his mother a Bengal tigress. He has recently been in New York, and seems to be a healthy, vigorous animal.

Houses of sand, as substantial as granite, are offered by the new process of L. P. Ford, of Gresham, England. A mixture of sand and quicklime in suitable proportions is forced into a very strong steel mold, which is placed in a box, from which the air is then pumped, when hot water is admitted. The heat and pressure of the slacking lime and steam mold the materials into a rock having 60 per cent of the strength of granite. This building stone, ready for use in eight hours, is very durable, and its cost is low, bricks by this process costing little more than half as much as the ordinary.

In the suburbs of Berlin recently concrete has been employed in place of wood in making piles to be driven into the ground for foundations to buildings. These singular piles, varying from 17 to 25 feet in length, are triangular in cross section, and consist of Portland cement mixed with river ballast, the composition being stayed with an armature comprising, for each pile, three-quarter-inch iron rods tied together at regular intervals, the rods being set into the concrete. The heads of the piles are guarded by buffers, and, thus protected, they can be hammered into the ground like wooden beams with a pile-driver.

The invention of nickel-steel, and other causes of an increased demand for the metal that is so familiar to us in our five-cent pieces, give widespread interest to every discovery of new deposits of nickel ore. During the past summer Prof. Coleman of the University of Toronto explored the Sudbury nickel deposits in the province of Ontario, and reports that in quantity they surpass any other nickel deposits in the world. But although the percentage of metal in the ore sometimes reaches five per cent, it averages only two and five-tenths per cent, which is not equal to the richness of the ores of New Caledonia. The Ontario deposits cover an area forty miles long by twenty broad.

PROUD OF THEIR INCAPACITY.

Some Women Glory in Their Inability to Do Common Tasks.

It must be admitted that some women and girls have no taste for housekeeping, but this is a distinct misfortune. They ought to have it. They should try to acquire it. They have no reason to glory in such incapacity, not to look on it as a mark of superiority, of an artistic temperament, a fastidious nature. Not a bit of it. The really fastidious people are always good managers, for they cannot endure to live in discomfort and squalor, and rather than endure it, set bravely to work to remedy it.

The young woman who cannot cook a mutton chop, boil a potato, or make a decent cup of tea, whatever her station in life, has no reason to feel proud of her incapacity.

Some things every girl should know, whatever her wealth and position—how to make a fire, how to bind up a wound, how to cook at least some simple dishes, and how to act in case of fire or poison. On such knowledge life or the loss of it may depend, and she who does not possess it is ignorant of an essential to a woman's education. A thousand possible accidents may make it of the first importance.

The perfect woman, the woman the world wants, is the all-around woman who can put her hand to anything, should the need arise, and who, having a cultivated intelligence, quickly grasps how tasks unfamiliar to her should be done. The cultured lady, accomplished equally at home in the drawing room, the nursery and the larder, able to entertain her guests with ease and grace—no drudge, no mere upper servant, but capable, womanly, versed in all that it becomes a modern woman to know; mistress, perhaps, of an art or profession, but in addition to and before all that, a good wife, a good mother, a good mistress—that is the kind of woman of whom there cannot be too many.

She may not be required, by her circumstances, to busy herself with house-

hold de tails, but she knows how every-

thing should be done. When she finds fault it is with reason and out of the fulness of her knowledge. She does not give impossible commands or expect impossible perfections. She is just and reasonable, but if anything goes wrong she knows just why, and she can point out the reason.

She commands the respect and confidence of her servants. If circumstances compel her, she is ready to work for husband and children.

She manages under all circumstances to preserve her grace and refinement and to import it into her method of work. She makes the poorest cottage pretty and homelike, and by a deft touch transforms the dreariness of even cheap lodgings. She never slinks with her fallen fortunes, but brings up her children to adorn the society to which they belong. She is simple and well bred—a lady, every inch of her—and therefore free from foolish pretense and affectation, cheerful, companionable, well read, with a kind heart and sound principles. "Her price is above rubles."

THE DEADLY CELLULOID COMB.

Dangerous Article of Adornment Is Slightly Different from Gun cotton.

Attention to the dangers attending the use of celluloid toilet articles is again called by a contributor to the Medical Press and Circular. He writes as follows:

"It has long been known that dressing combs and other articles of like nature have been manufactured from a modification of gun cotton. From time to time we have pointed out the possibility of accident from the use of article containing such ingredient, but comparatively few cases of accident have hitherto been recorded. Now it appears that the original patent having expired, a vast number of imitation processes have sprung up, and the public are flooded with combs made from gun cotton compounds by methods which render them more dangerous than those prepared under the original patent. That some restriction should be placed on its indiscriminate use was proved by the recent case of a girl, twenty-two years of age, who was suffering from cellulitis of the scalp, accompanied by a marked degree of nervous shock. It appeared that her head had been set on fire by the sudden combustion of a comb which she wore in her hair. Cooking her father's dinner one Sunday, she happened to bend down before the fire, when the comb suddenly ignited, and she became enveloped in flames. Her life was spared through the presence of mind of her father, who immediately enveloped her with the hearth rug, and so extinguished the conflagration. Obviously, seeing that the mere storage of gun cotton is restricted by heavy penalties, it is not fair or safe that makers should be permitted to place a slightly modified, but actively dangerous modification, on the market, to be used by a section of the public who have not the slightest notion of its composition and dangers."

INVENTIONS BRING WEALTH

Keen-Witted Circuit Rider of Indiana Acquires a Fortune.

From a poor Methodist circuit rider, preaching Sunday after Sunday to small country congregations in Pike and other Southern Indiana counties, to a man whose wealth is estimated at \$500,000, within two years, is the record of the Rev. James M. Stafford, of Petersburg, has made through inventions wrought out while traveling.

Mr. Stafford is only 27 years of age, but he owns seven inventions, six of which have been patented at Washington and for each of which he has been offered a fortune.

Probably his most remarkable invention is a non-refillable bottle, which has been tested thoroughly and is soon to be manufactured by a company organized for the purpose. At the first test the minister was offered \$100,000 for his patent, but refused it. The offer was increased but he refused to dispense of the patent as a whole or even of a controlling interest. Ultimately he sold a tenth interest for \$10,000, and is to receive a royalty on all bottles manufactured.

Another invention is a non-refillable bottle cork, which is closely allied to the non-refillable bottle, but can be made to fit any bottle that is manufactured. Still another is an automatic monkey wrench which does away with the screw and thread and adjusts itself automatically to any size. It is said that the wrench can be sold much cheaper than the ordinary article.

The minister is not only enjoying his new prosperity himself, but is doing much good with the money which has come to him. His first purchase was a 200-acre farm, which he gave to his aged father. Soon afterward he bought the steam ferry at Petersburg and gave that also to his aged parent.

Wonder If It Is True?

This is why Illinoisians were first called "suckers," according to an old magazine. The early pioneers adopted many Indian habits. They strapped their infants to boards like papooses. After they began to raise swine, the mother would leave her baby alone in the cabin for hours, but to alleviate his solitude, she gave him a huge piece of raw pork to suck, first tying it to his foot by a string, so that whenever he attempted to swallow it the natural impulse to kick would save him from choking.

Don't take chances of proposing to a girl on Friday; she might not refuse you.

Cold cash has burned many a man's fingers.

HIS LOT AN UNENVIABLE ONE

King Peter Snubbed by Royalty and in Danger of His Life.

"Uneasy lies the head that wears a crown" is more particularly applicable to the new ruler of Serbia, Peter Karageorgevitch, than to any other sovereign in Europe, not even excepting the Sultan. Since the day of his arrival in Belgrade to mount to the throne of the murdered Alexander, he has been beset by intrigue, surrounded by spies, and the very center of a boiling caldron of political scandal.



He becomes more and more convinced daily that he made a mistake when he gave up the life of a private gentleman for that of monarch of such a state as Serbia, where he enjoys few of the privileges and dignities of kingship, where he reigns without governing, and where his life is so unsafe that the insurance companies ask an absolute prohibitive premium for a policy upon it.

He is systematically snubbed by most of the other rulers of Europe, and by none so markedly as by Great Britain, which has absolutely refused to have any diplomatic relations with Serbia since the brutal tragedies.

The other day King Peter sent congratulations on King Edward's birthday to the British charge d'affaires at Belgrade, who declined to receive them.

He receives by every post a variety of disturbing predictions as to what is likely to happen to him, and therefore deems it wisest to have a fire escape attached to his bedroom window, and several guards, who, however, he cannot trust about his person.

Personally, King Peter is an admirable man and has all the qualities of a good king. But his people are turbulent and hard to govern.

He is now 58 years old and is a fine soldier, having received his education at the French military school of St. Cyr. He served in the Franco-Prussian war with the French Foreign Legion, which was noted in that struggle for its hard fighting and dare-devil tactics. He married a Montenegrin princess, now dead, and has three children, George and Alexander, aged 16 and 15 respectively, and Helene, aged 19, who is one of the most beautiful girls in all Europe. The boys are studying at a Russian military school and are great favorites with the Czar.

AMONG TITANIC BUTTES.

Attractions Found in Utah "Valley of Wonders."

Words fail to express the sensations inspired in these excessive heights of naked rock. The river constantly forms an appropriate foreground, and at length as we near the upper end of this particular division one of the most complete pictures of the whole valley unfolds before us. In the foreground are the chaotic masses of red rock through which the river tears its way; green cottonwoods and bushes then loom their heads, leading on to a huge vermilion pyramid, whose precipices cleave the sky in the midday sun like a battle ax, behind and above it rising the still, white rocks of yet greater pyramids. A little farther on the road leads out into both plains again, where another phase of the valley begins. Four phases are noted between the entrance and the upper chasm; the open phase as far as the beginning of the ravine, then the ravine, then the amphitheater phase, extending to the cliff of the Wire, and finally the last narrowing phase from the Wire to the chasm.

Coming out of the head of the ravine as upon the floor of another story, the magnificent series of pyramids on the left disclose their full majesty; the little river no longer frets amidst bowlders, but glides with a concentrated intensity. To the west opens a deep alcove, adding to form here a huge amphitheater. There are thick groves of cottonwoods in the wide, level bottoms; on the slopes of talus, cacti bloom gorgeously; there also are manzanita with its rich red stem and waxen leaf, sage bush, and many other plants, cedars, pines. The blue sky above again touches the right chord of the symphony. Up and down, east and west, extends the labyrinthine array of giant rock-forms so magnificently sculptured, so ravishly tinted. Again we are impressed with marvelous beauty of outline, as well as the infinite complication, of these Titanic buttes. It is doubtful if in this respect the valley has anywhere its equal. Not even the best part of the Grand canyon offers a more varied spectacle. There is an isolation of each temple here that is rare, yet all are welded together in a superb ensemble.—Scribner's.

Good Counsel for 1904.

When you rise in the morning, form a resolution to make the day a happy one to a fellow creature. It is easily done; a left-off garment to a man that needs it; a kind word to the sorrowful, and encouraging expressions to the striving. If you are young, depend upon it it will tell when you are old; and if you are old, rest assured it will send you gently and happily down the stream of time into eternity.

Hold Mates Superior.

The Munich school board has ordered that all female school teachers must salute their male superiors first wherever they meet them.

It is a rare man who can quit eating while it is still tasting good.

Many a man who owes something to himself refuses to pay it.

EDITORIALS

Opinions of Great Papers on Important Subjects.

Love-Making by Rule.

ONE can hardly pick up a newspaper or magazine without finding advice on the subject of love-making, and the minutest idiosyncrasies of woman and of man are so described that it would seem that the wayfaring man and the fool could not err therein. This abundance of advice leads to the query whether it would not be quite as well to leave a little something to the individual. What fun is there going to be in courting a girl, when every step in the way is marked out with the precision of the proper move in a game of chess?

It may be true that if a man wants to please a woman he will pretend that he does not care too much for her, and that if a woman is particularly desirous of winning some particular man for her husband she will pretend that she does not care much for him; but if they both do this, either they will get the impression that there is no use in going on with the affair, or they will begin to understand that it is all in the game, and we have Scripture authority for it that in vain is the net spread in the sight of any bird.

For all this multifarious advice, however, there is very little danger that the good old game of courting will lose interest for the majority of people. Human nature is so varied that it will take any person more than one lifetime to learn all about it, and the more a man may think he knows about women in general, the more likely is he to find that the one particular woman in whom he is interested has some individual traits different from the rest; and they will be enough to keep him wondering for some time.

The most dangerous thing which one can do in a love affair is to generalize. The safest way is to study the specimen in hand, and try to find out its habits, fancies and tendencies, without much reference to those of other creatures. The ways of an oriole cannot be learned by watching a blue jay or a domestic duck.—New York Daily News.

Man Should Not be Ru'd by His Moods.

PEOPLE, as a rule, allow their happiness to depend too much on moods; and these moods may be attributed in most cases to the condition of the body. If a man works too much and sleeps too little one day, he is very likely to wake up next morning in a surly humor and keep himself and every one about him uncomfortable for the day. In such a case a man deliberately and with savage perverseness cultivates his irascibility. Instead of fighting against the mood and beating it off, he yields to it and takes a gloomy satisfaction in his condition. He willfully twists every incident into a cause of offense, goes out of his way to find slights, and discharges his ill-feeling on his wife or children or employes or anybody else whom he can bully without fear of being knocked down. On the other hand, when a man is healthy and refreshed, and well fed, he beams upon the world. Things must go very badly before they make any impression on his buoyancy of spirit.

"Life," Emerson wrote, "is a train of moods, like a string of beads, and as we pass through them they prove to be many colored lenses which paint the world their own hues, and each shows only what lies in its focus." It does not become a rational man, however, to be ruled by his daily humors. The intellect and will should be masters of the temper.—San Francisco Bulletin.

Back to the farm.

ONE of the most serious problems that confronts the economic world to-day is to keep the young men on the farms. For many years there has been a tendency to congregate in the cities, and to such an extent has this been carried that all the vocations of city life have been so over-crowded that to-day it is well-nigh impossible for a stranger to get a foothold. For every situation there are a score of applicants, and the young man who has no influential friends to render him

QUEER STORIES

Senator Knute Nelson of Minnesota, who is a Norwegian by birth, speaks Norwegian, Swedish, Danish, German and English, and has a good understanding of French. He is one of the most accomplished linguists in the Senate.

Cats in Japan almost universally have short tails, and if a cat does come into the world with a lengthy caudal appendage it is usually chopped off, for the Japs detect a likeness to snakes in the long tail and cannot endure it. The Japanese cat has the usual number of bones in its tail, but they are not developed.

A startling fact which has recently been demonstrated is that the equator is not a perfect circle. If you could drop a plumbline from Ireland through a New Zealand, it would be somewhat longer than another which cut the earth at right angles to it. The difference has not yet been ascertained with absolute accuracy.

A letter was received at the East Dorset (Vt.) postoffice a few weeks ago, postmarked at Spokane Falls, Wash., and directed to Benjamin Ames or any of his descendants. It proved to be from a man who sixty years ago boarded with Mr. Ames for a time and left without paying his board bill. He said that he was now 83 years old and wanted to pay. The bill was sent him and he sent a check for the amount.

Maid "housemaids" are the most recent contribution to the solving of the servant problem in Great Britain, it is said. Several thousands of foreign young men have recently been transported to London to engage in general domestic work in British households. So far nothing but commendation is heard on the subject. These men servants, say their employers, do the work that has generally been allotted to women in a cleaner, quicker and more thorough fashion than the sex they have displaced. They waste less time, are no grivancians, no "visitors," ask no higher wages, and do not bother

aid is indeed unfortunate. We have long believed that the condition of affairs would correct itself. One of the reasons that our young men have been so willing to leave the old country home has been the lack of country attractions. This can hardly be said to hold good to-day. The trolley car, telephone and free rural mail delivery have well-nigh wiped out the distinctions between city and suburban life. Another powerful factor now working for the upbuilding of the country life is the agricultural college. Our young men are fast learning that farming is no longer the hazardous business of a former day, but is one of the most exacting and scientific of pursuits. With this knowledge comes a higher respect for the vocation and a stronger desire to enter the industry. The tide is thus gradually but surely turning, and the time is near at hand when farming will be held in the same high regard here that it has long been in England. In that country when a man achieves financial success he at once seeks a country estate for a home.

Here the reverse has long held true, and the city home has been held up as the ideal. This false system of ethics is rapidly going to the wall and a more exalted idea of country life is taking its place. Rich and poor alike are beginning to take to the farm. It is the ideal spot for a home.—Lewiston Journal.

Bachelors Are Spoiled.

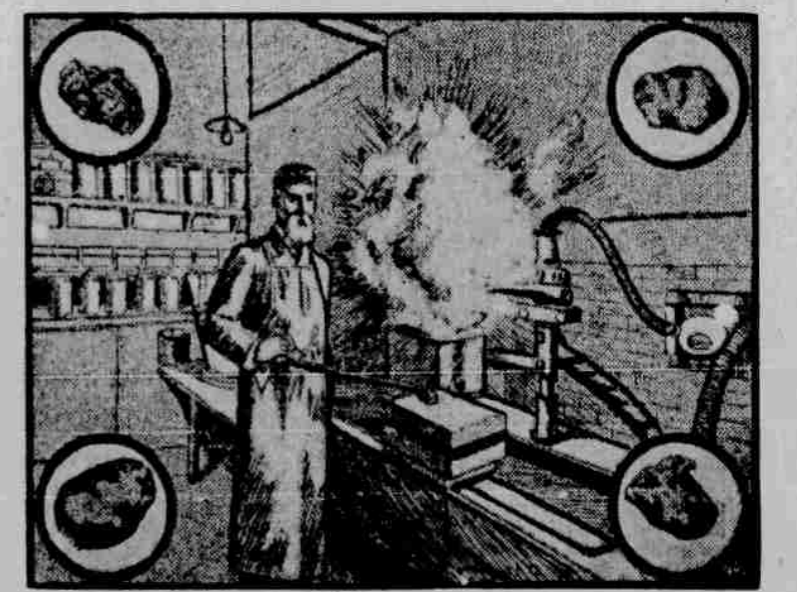
BEYOND a doubt, society spoils many bachelors, by making too much of them. The purpose of society is to bring the men and the maids together, mate them and marry them. But society frustrates its own purpose by pecking and paupering unmarried men. It puts a premium on the single state, at least for men. Bachelors are made so contented with their condition that it is no wonder they are loath to alter it. They stand, as it were, on a pedestal, in heroic pose, like demigods. In case is burned before them. Then the girls complain because the men don't marry. If the young women of this generation are left old maids they may blame themselves and the ways of society.

Society, for its own sake, ought to make things unpleasant for bachelors. Unmarried men should be forced to feel that they have a duty yet unperformed, and that they are received only on sufferance. They should be kept in the background in all events and below the salt at table. The married man, on the contrary, should be received as one who has done his duty faithfully and well, and has merited reward. He should be favored in every possible way in order to point the difference between his honorable state and the unworthy condition of the single. Bachelorhood should be a limbo or even a purgatory; a state of painful preparation, instead of a heaven. If things were as they ought to be, if society were alive to its own interest, there would be fewer self-satisfied, egotistic, disgustingly contented single men.—San Francisco Bulletin.

The Handicap of Wealth.

PRESIDENT ELLIOT, of Harvard, in a recent address told a band of struggling newsmen that the children of the rich were terribly handicapped—and they are. In a majority of instances their lives have no purpose. They are reared in an environment which makes them mere show animals. They know nothing of the tooth-and-nail existence which makes men. It has not been brought home to them, as to those that are early thrust into the vortex of life, how much of struggle and fight and endeavor is still needed to preserve the ground civilization and culture have gained for humanity. They merely grow. They see people about them gratifying sensual desires and seeking pleasure, and in too many cases that becomes the sum total of their life's aim. It is a tremendous handicap for any one to overcome; and in the struggle for success, for the place of honor and esteem among the best elements of mankind, they will find that somehow or other they do not possess helpful characteristics.—Vim.

CLAIMS HE CAN MAKE DIAMONDS.



PROFESSOR MOISSON. The scientific world is greatly interested in the claims of Professor Moisson, the learned Frenchman who asserts that he is able to manufacture diamonds in an electric furnace of his invention. The process, according to M. Moisson, who is shown at work at his diamond making furnace, takes from six to eight weeks, tremendous pressure being applied to the raw material, which is withdrawn at white heat from the crucible. It is then found that the glass, which has assumed a grayish color, contains a particle said to be a diamond. Charles Combes, the well known French mining engineer, is foremost among those who ridicule the professor's claims. The small circles in the picture contain figures of the so-called diamond crystals.

about "evenings out." Altogether, if the future carries out the prophecy of the present it will not be long before the reign of women workers in the "essentially womanly" field of housewifery" will be quite eclipsed by the masculine superiority therein shown.

The long, stiff tail-feathers of a woodpecker enable the bird to cling to the trunk of a tree in an upright position for a long time and bore away for food. The bill of a woodpecker is often as strong as that of a bird of prey, and in the woodcock of Northern Maine the bill is found at its greatest development. The tongue much resembles an angle worm, and is very long and admirably adapted for sucking sap. Sometimes the tongue is not only long and brush-like, but barbed at the point, so that it can impale its prey. The feet are adapted for swimming in various ways.

A Snug Fit.

Clerk—What size?

He—Ah, there you've got me. I don't know the size. She's pretty plump; but (suddenly brightening) just measure the length of my arm.—Philadelphia Ledger.

Essence of Roses.

At present essence of roses is almost the only article exported to the United States from Bulgaria, and agricultural machines are almost the only direct imports from the United States.