The "Potato Cure."

Readers may remember the article which went the rounds of the various medical journals about a year ago, which highly extolled the virtues of potatoes as a remedy in cases where foreign bodies had been taken into the stomach. The explanation of this lay in the fact that the potato leaves a large residue in the intestine which passes on and increases the amount of fæces to a considerable extent; the foreign body is enveloped in this, and any sharp corners or angles which it may possess are kept from injuring the delicate mucous membrane of the stomach and intestines. To accomplish this end large quantities of the vegetable must be eaten, and potatoes are given in every conceivable form, fluids being avoided as much as possible. The foreign body thus passes out without injury to the alimentary canal. At the time this remedy was brought to general notice several cases of recovery by its use were also noted. As the idea appears to be a very sensible one, we take occasion to abstract from the report of a case, remarkable in some respects, which was recently published in the *Medical Record*.

The case is reported by Dr. Edward Pisko, of New York, and is that of a child not quite one year old, who had swallowed a screw one inch in length. The screw passed on into the stomach, and did not seem to be giving much trouble when the patient was first seen. To avoid both a laparotomy and the danger of intestinal perforation, the aid of the potato was invoked, in spite of the tender age of the patient and the fact that it had just been weaned from the breast. Potatoes were given in every form, and white bread dipped in milk, but no fluids. The child continued well, and on the fifth day, after the administration of a slight laxative, the screw was passed enveloped in fæces. There was no apparent injury to the stomach, and no intestinal catarrh, and the child's general health remained unaffected. The interesting features of the case are the brilliant success of a most unassuming remedy and the fact that the patient was so young, and scarcely weaned.

Pisko also relates the following case, which he saw in Albert's surgical clinic at Vienna:

A boy æt. 6 years, who, two years previously, had swallowed a nail, which at that time was removed by gastrotomy, was brought there again with a nail (6 centimeters long) in his stomach. This time the "potato cure," which had been introduced in the meantime, was used, with the result that on the ninth day the nail made its appearance per *vias naturales*.

It would seem that we are not yet acquainted with all the possibilities of the luscious tuber, since it even bears off the palm from laparotomy.—*Weekly Medical Review.*

Death Rates of the World's Largest Cities.

Following are the vital statistics for a number of the principal cities of the world, compiled to December, 1890:

	Estimated Present Population.	Annual Death Rate per 1,000.
AMERICAN.		
New York	1,655,598	22·22
Baltimore	455,427	19·31
Boston	446,507	23·64
Brooklyn	853,985	22·41
Chicago	1,100,000	16·93
District of Columbia (Washington)	250,000	. . .
New Orleans	254,000	48 48
Philadelphia	1,064,277	18·97
San Francisco	300,000	20·23
St. Louis	460,000	15·02
FOREIGN.		
London	4,421,661	21·1
Liverpool	613,463	21·9
Birmingham	461,865	18·5
Manchester	379,437	27·2
Glasgow	530,208	22·4
Dublin	353,082	25·5
Copenhagen	307,000	20·7
Christiania	143.300	20·7
Stockholm	236.350	18·0
St. Petersburg	924,466	24·7
Amsterdam	403,083	19·2
Rotterdam	197,723	18·6
Antwerp	232,418	26·1
Brussels	182,275	25·7
Paris	2,260,945	24·61
Rome	393,496	23·9
Venice	156,515	31·5
Berlin	1,575,485	17·1
Munich	298,000	30 2
Prague	314,425	21·99
Vienna	822,176	23·0
Buda-Pesth	442,787	. . . .
Bombay	773,196	19·78
Calcutta	433,219	21·5
Madras	398.777	35·0
Cairo	374,838	34·8

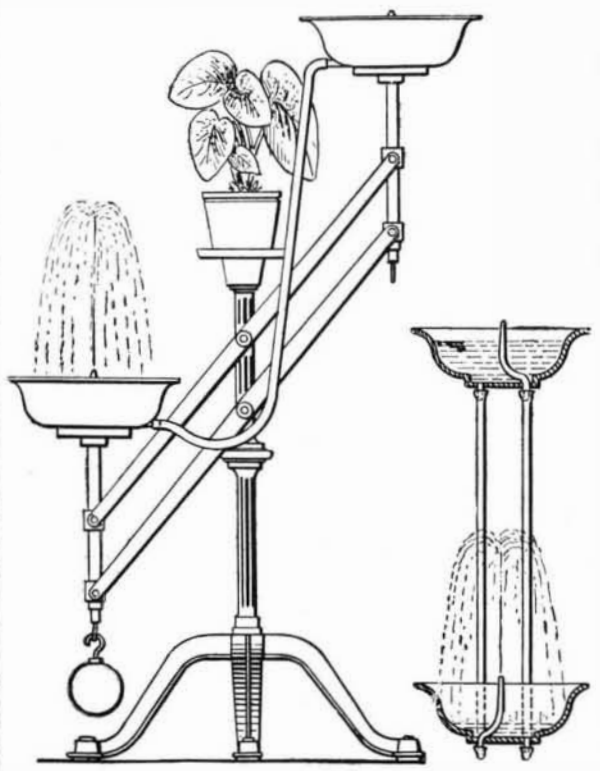
—*Fire and Water.*

Estimated Population for 1900.

The estimate of the population of the United States for the year 1900, by Hon. Carroll D. Wright, superintendent of the Department of Labor, gives as the approximate figures 76,639,854. This is the result of a careful consideration of the estimates made by several other reliable individuals, the known rates of increase, and the various circumstances that bear upon the growth of population.

PORTABLE PARLOR FOUNTAIN AND FLOWER STAND.

The annexed engraving, taken from the Vienna *Gewerbe Zeitung*, illustrates a fountain consisting principally of two equal sized basins, each containing a spraying nozzle and an outlet pipe, the spraying nozzles being connected by two rubber pipes with the outlet pipes, as plainly shown in the sectional view.



PORTABLE PARLOR FOUNTAIN AND FLOWER STAND.

The basins are supported on suitable holders connected with each other by parallel levers fulcrumed on the flower stand. A weight is adapted to be hung on the lower end of the holder containing the empty basin to counterbalance and to hold the filled basin in an uppermost position. The water flows from the filled upper basin through the outlet pipe to the spraying nozzle of the lower basin, and is projected quite a distance up into the air, to fall back and gradually fill the lower basin. When this is accomplished, the upper basin has run empty and the counterbalancing weight is now hung on the holder of the empty upper basin so as to change the position of the levers, and consequently the basins; that is, the filled basin assumes an uppermost position, while the empty one swings downward. The water now flows from the upper basin to the spraying nozzle of the lower empty basin, and is sprayed to accumulate in this basin.

It takes about one hour's time to empty a basin containing about one-half gallon of water, the opening of the spraying nozzle being one-half millimeter in size.

In case the water gets dirty, the basins can be readily removed from their holders and emptied, cleaned, and replaced, and one again filled with fresh water.

T. G. H.

A CURIOUS TOMBSTONE.

Subterranean Fires.

Some idea of the terror of volcanoes may be gathered from an account of an eruption in one of the Hawaiian islands, as graphically described in the *London Budget*, when the crater was filled from five hundred to six hundred feet deep with molten lava, the immense weight of which broke through a subterranean passage of twenty-seven miles and reached the sea, forty miles distant, in two days, flowing for three weeks and heating the water twenty miles distant.

Rocks melted like wax in its path; forests crackled and blazed before its fervent heat; the works of man were to it but as a scroll in the flames.

Imagine Niagara's stream, above the brink of the falls, with its dashing, whirling, madly raging waters, hurrying on to their plunge, instantaneously converted into fire—a gory-hued river of fused minerals; volumes of hissing steam arising; smoke curling upward from ten thousand vents, which give utterance to many deep-toned mutterings and sullen, confined clamorings: gases detonating and shrieking as they burst from their hot prison house; the heavens lurid with flames; the atmosphere dark and oppressive; the horizon murky with vapors and gleaming with the reflected contest.

Such was the scene as the fiery cataract, leaping a precipice of fifty feet, poured its flood upon the ocean. The old line of coast, a mass of compact, indurated lava, whitened, cracked and fell. The waters recoiled and sent forth a tempest of spray; they foamed and lashed around and over the melted rock, they boiled with white heat, and the roar of the conflicting agencies grew fiercer and louder. The reports of the exploding gases were distinctly heard twenty-five miles distant, and were likened to a whole broadside of heavy artillery. Streaks of the intensest light glanced like lightning in all directions; the outskirts of the burning lava as it fell, cooled by the shock, were shivered into millions of fragments and scattered by the strong wind in sparkling showers far into the country. Six weeks later at the base of the hills the water continued scalding hot and sent forth clouds of steam at every wash of the waves.

A New Industry for Sunderland, England.

The negotiations which have been taking place for some time past between the River Wear commissioners and the Anglo-American Oil Company have at length been brought to a satisfactory conclusion, and, before long, a new and very extensive industry will be established in Sunderland. The Anglo-American Oil Company is one of the largest concerns in this country or America. It owns large oil wells in Pennsylvania, besides a fleet of specially constructed steamers for the conveyance of oil across the Atlantic. The company intends to erect works at Hendon, near Sunderland, covering about two acres of ground, which will comprise three or four tanks resembling gasometers in appearance, for the reception of the oil. The liquid will be pumped from their own ships, as they arrive in the docks, to the tanks referred to, and thence dispatched to all parts of the kingdom. This is an entirely new industry in the port of Sunderland, and capable of assuming large proportions.—*London Times.*

A CURIOUS TOMBSTONE.

The inhabitants of the sleepy village of Wilmette, Ill., were astonished not very long ago to find an enormous elm tree standing in the middle of their principal street. It had been moved along the highroad, and was being conveyed to Graceland Cemetery, where it was to be planted over the grave of Mr. J. H. Lathrop, of Chicago. A rather romantic story is told about the reason for the transportation of so large a tree. It was said that while Mr. Lathrop and a friend were out shooting about two years ago, they stopped to take lunch under the spreading limbs of an enormous elm. They stood admiring the tree, and finally entered into a compact that upon the death of either, the tree was to be transplanted to the grave of the deceased at the expense of the survivor. Unfortunately, there is no reason to believe that there is any truth in the story, as Mr. Lathrop was not a sportsman. He knew the tree, took a fancy to it, and made up his mind that he would be buried under its branches. To that end he provided a fund of $10,000 in his will for the removal of the tree from the forest where it stood to the cemetery, a distance of twelve miles. At the time when the photograph which we publish was taken, the tree had been moved five miles without accident, save the sad fate which met one of the laborers, who was crushed to death beneath it. A force of thirteen men is employed, and the expense of removal so far has been $2,000.

A hole has been chiseled through the tree about ten feet from the ground, and through this has been passed a steel bar, which projects far enough on either side to bear upon the heavy timber braces which support the tree in an upright position. Wire guy ropes are attached to staples driven in the limbs which serve as a further support. The roots are carefully wrapped up to protect them from freezing. The tree is about 75 feet high and 7 feet in circumference.

Pasteur's Treatment for Rabies.

Considerable discussion has been had among medical men, at home and abroad, as to Pasteur's preventive method for hydrophobia, it being alleged as highly probable that in many instances patients have undergone treatment when the dog which had inflicted the bite was quite healthy, or, at least, not suffering from rabies. But Dr. Tomkins, medical officer of health, Leicester, England, relates in the *Lancet* the following record of three cases treated at the Pasteur Institute last year, which places beyond all doubt that the animal, at the time of inflicting the injuries, was suffering from rabies:

On January 8, 1890, a stray dog came into the borough of Leicester from the adjoining suburbs, and on its way bit two school children, a boy and a girl, on the face and hands, the wounds upon each of the children's faces being of a very extensive, lacerated character. This occurred outside the borough boundaries, and almost at the same time it bit also a small terrier dog. Continuing its course into the town, it bit a young man severely on the hand, and shortly after this it was killed. The patients were seen by medical men and the wounds cauterized, but not until after the lapse of some little time. In one case nearly an hour elapsed. I saw all the patients on the following day, and, with the assistance of Mr. Fraser, the veterinary inspector to the corporation, made a post mortem examination of the dog. The pathological appearances to the naked eye were practically *nil*, but the stomach contained some pieces of straw and other debris. The cord and medulla were removed.

On Saturday, the 11th, I took the three patients to Paris (taking with me the cord removed from the dog), and on Sunday morning they were seen by M. Pasteur, and treatment commenced in the usual manner. From the cord several rabbits were inoculated, and before the end of a week these succumbed to what M. Pasteur declared to be rabies. The man was kept under treatment fourteen days, but the two children, owing to the severity of the wounds, were kept for twenty-five days before being sent home. The small terrier bitten by the dog was kept by me under close observation shut up, away from all other animals, and on the fifteenth day from being bitten it began to show signs of indisposition (having in the interval been apparently in good health), which soon declared itself as undoubtedly rabies, and the animal succumbed on the third day from the first onset of the symptoms. Being kept secluded and alone, it showed but few signs of excitement, but crawled about, refusing to eat or respond when called to, paralysis of the lower jaw and hind limbs soon supervening. It should be noted that the wound on its hind leg was but a small one, not larger than a threepenny piece, and at the time of its death was healed.

Here, then, we have indisputable evidence that the animal which bit these three patients was suffering from rabies, and the probabilities are, seeing how easily the second dog was infected, that at least one or other of the three would have developed symptoms of hydrophobia if the treatment for prevention had not been adopted. As more than twelve months have now elapsed since the occurrence, and all of them remain in good health, we may conclude they have now quite escaped from any untoward consequences.

New Signals for Our Cruisers.

The new French system of signaling at night at sea was put on the cruiser Chicago before she sailed, for experiment during her cruise this winter. Ten lamps hang vertically from a backstay; a keyboard having sixty-two different characters, letters, and signals governs the lamps, and in this way the combinations are made. This system of signaling is at present used in the French and German navies. Various other systems are being experimented with by American officers to find one which is best. The present system on American vessels, according to the New York *Tribune*, consists of three 16 candle power electric lights—one red, one green, and one white—which hang vertically on a jackstay, several feet apart. The Morse code of signals is used, and an ordinary telegraph key does the work of flashing or shutting off the light. The green light indicates a dash, the red light a dot, and by flashing the lights in this way signals may be sent over a distance, depending upon the clearness of the night, but not usually over three miles. Experiments are also being made with the electric search light. The plan is to throw the light overhead, making dashes and dots against the sky, so that a whole fleet could read them for many miles around.

Bombay Water Works.

A huge dam has been designed to inclose the watershed of the valley which drains into the sea south of Bombay. It is two miles long, 118 feet in height and 103 feet wide at the base. The roadway on the top is to be twenty-four feet in width, and the stonework will cost half a million sterling. The lake of water which this dam will imprison will be eight square miles in area. Twelve thousand Hindoos trained to this special work are employed on the dam.

Stickstoffwasserstoffsaure.

At a recent meeting of the New York Academy of Sciences, Dr. H. C. Bolton spoke briefly on the remarkable addition to chemical knowledge recently made by Prof. Th. Curtius, of Kiel, viz., a new strong acid called in German "stickstoffwasserstoffsäure"—in English *hydrazoic acid*—having the formula

$$HN_3; \text{ or, } H-N\begin{cases} N \\ \| \\ N \end{cases}$$

Curtius obtained it in several ways, the most convenient method being by converting hippurylhydrazin into nitrosohippurylhydrazin, and decomposing the latter with alkali.

$$\underset{\text{Nitrosohippurylhydrazin.}}{C_6H_5CONHCH_2CO.\ N\begin{cases} NO \\ NH_2 \end{cases}} = \underset{\text{Hippuric acid.}}{C_6H_5CONHCH_2COOH} + \underset{\text{Hydrazoic acid.}}{HN\begin{cases} N \\ \| \\ N \end{cases}}$$

The new acid is a gas, having a frightful suffocating odor, irritating the mucous membrane and producing headache. It is very soluble in water, yielding a strong acid solution, like hydrochloric acid. This solution dissolves iron, zinc, copper, aluminum, and magnesium, with liberation of hydrogen and formation of nitrides of the metals. With salts of silver and mercury white precipitates are formed resembling chlorides of these metals, but the silver compound is not blackened by light; the mercurous, copper, and ferrous salts are explosive.

Advantage is taken of the insoluble silver salt to prepare the acid in a pure state; boiled with dilute sulphuric acid it yields hydrazoic acid. An aqueous solution containing 27 per cent of the gas is much heavier than water, and sinks to the bottom of the vessel into which it is poured. The solution yields white clouds with ammonia, just like hydrochloric acid. Prof. Curtius plans to build up an entire new series of nitrogen compounds of greatest interest to the chemical world.

Dr. Bolton spoke of the great importance of the discovery of the new strong acid from industrial, analytical, and physiological points of view.

Poisoned by Hothouse Flowers.

The poisoning of several greenhouse workmen by contact with some greenhouse plant was noticed in our columns the other day. The name of the plant was not mentioned, but we suppose it must have been the Chinese primrose, that is technically known as *Primula obconica*. This primrose is one of the most beautiful of the genus, and it is now in full bloom in our conservatories and offered for sale in the florists' shops. Its poisonous character is well known to experienced florists. After handling it they are apt to be affected with an inflammation of the skin of the hands and arms, and often of the face, of an eczematous type.

This lovely little plant is a native of central China, where it was first discovered by Mr. Maries, a botanical collector, who sent seeds of it to England. Plants raised from these seeds bloomed for the first time in Europe in September, 1880. In the following year it was figured and described in the *Botanical Magazine*, and three years later a colored plate of it appeared in the *Garden* newspaper. It created a sensation in European gardening circles, and on account of its easy growth, neat habit, and winter blooming nature, and the great profusion and beauty of its blossoms, it has found much favor with English and Continental florists.

As it seeded and multiplied very freely, it soon found its way to this country, where, till two years ago, it was a reigning favorite both in private and commercial gardens. When its poisonous nature, however, became generally known, its popularity received a decided check; but it is such a beautiful little plant that even now cultivators dislike to give it up altogether.

The whole plant, leaves, petioles, and flower stems, is covered more or less thickly with jointed hairs, and it is supposed that these hairs cause the poisonous irritation by breaking off and entering the skin of the hand. But all who touch the plant are not poisoned by it. We know of workmen who can handle it with absolute impunity at any time, while others are always susceptible to its evil influence. The back of the hands, between the fingers, and the bare arms are the parts affected; the hard palm of the hand escapes uninjured. The face and eyes of some workmen are also poisoned by it, although these parts never touch the plants. One person whom we know of can handle the leaves without any smarting pain, such as the stinging of a nettle, and no pricking as if a cactus hair had penetrated the skin; but after an hour or two the itching begins, and lasts more or less for several days. In fact, the effect upon the skin presents a good deal the appearance of parsnip poisoning, but it is never so virulent or so lasting as that caused by poison ivy.

The explanation that was given that "the only way in which one could account for the poison was that Paris green and some other powders that are used in the hothouses to kill vermin must have adhered to the flowers after they were cut," is quite unsatisfactory. Paris green is not used, we believe, as an insecticide in greenhouses. Tobacco, either in the form of powder or vapor, or smoke, is employed to destroy aphides and thrips, but tobacco is harmless to the skin. Sulphur is used against red spider and mildew, but it is harmless to the hands.

Pyrethrum powder, known also as Dalmatian insect powder or buhach powder, is employed more or less, but it is not injurious to touch or taste; only in breathing when it is suspended in the atmosphere is it hurtful. Other insecticides than these are seldom employed by the busy florists who supply the cut flowers for the New York market.—*N. Y. Sun.*

The Earth's Interior.

One of the most interesting questions relating to the earth considered as a planet is that of its interior constitution. Observations made in deep mines and borings indicate that the temperature increases as we go downward at the average rate of one degree Fahrenheit for every fifty-five feet of descent, so that if this rate of increase continued, the temperature at the depth of a mile would be more than one hundred degrees higher than at the surface, and, at the depth of forty miles, would be so high that everything, including the metals, would be in a fluid condition. This view of the condition of the earth's interior has been adopted by many, who hold that the crust of the earth on which we dwell is like a shell surrounding the molten interior. But calculations based upon the tidal effects that the attraction of the sun and moon would have upon a globe with a liquid interior have led Sir William Thomson and others to assert that such a condition is impossible, and that the interior of the earth must be solid and exceedingly rigid to its very center. To the objections that the phenomena of volcanoes contradict the assumption of a solid interior it is replied that unquestionably the heat is very great deep beneath the surface, and that reservoirs of molten rock exist under volcanic districts, but that taking the earth's interior as a whole the pressure is so great that the tendency to liquefaction caused by the heat is overbalanced thereby. The whole question, however, is yet an open one. According to the nebular hypothesis, which assumes that the bodies of the solar system once existed in a nebulous form and by gradual condensation and loss of heat have attained their present condition, it is probable that the earth is still slowly cooling off, and that, as we see it, it represents an intermediate stage between the hot vaporous globe of a planet like Jupiter and the cold and barren moon. If we accept this theory—and it is yearly gaining strength—then the habitable period in the earth's career appears to be but one chapter in its varied history. When it was yet molten and vaporous it could not support life, but it shed light like a star. Now it possesses a cool and solid crust on which innumerable tribes and species of animal and vegetable life swarm and flourish. Anon it will become cold and inert, its waters and its atmosphere retreating into its interior, and with them the life that depends upon their presence will disappear. This possible cause of the cessation of the life-supporting energies of the earth, it will be observed, is independent of the withdrawal of the light and heat of the sun, an ultimate catastrophe to which we have heretofore referred.—*Prof. Garret P. Serviss, in the Chautauquan for February.*

Electrical Street Car Propulsion.

We are informed by Mr. D. H. Bates, vice-president and general manager of the Accumulator Company, that a contract has been made for the equipment of the new G Street branch of railroad, Washington, D. C., with six storage battery cars. This railway company was one of the first street car roads in the United States to adopt electricity as a means of propelling its cars, and the Thomson-Houston system of trolley wires was installed there several years ago. Congress, however, will not permit the railway company to erect any more trolley poles, particularly in the heart of the city, and this storage battery system has been adopted.

The Edco system is the invention of Mr. W. W. Griscom, the president of the Electro Dynamic Company, of Philadelphia, the initials of which title serve to form the word "Edco." The cars are being manufactured by the J. G. Brill Company, of Philadelphia, and will be lighted by electricity, equipped with the Edco system of motors and gearing, the gearing running in oil, with dust-tight covers for motors, and with a number of "23 M" type accumulators, designed to give an average speed of 8 miles an hour and a maximum speed, when desired, of 15 miles an hour.

Riches of Oregon.

There is a tract of forest trees in Southern Oregon, embracing about 16,000 square miles, which, if cut and sold at $10 per 1,000 feet, would pay our national debt twice over. It is estimated that the amount of merchantable timber standing amounts to 400,000,000,000 feet.—*Oregonian.*