

A PLANT WIZARD.

WONDERFUL THINGS PRODUCED BY A SCIENTIFIC FARMER.

Bearing Pears as Large as Watermelons and Prunes of Giant Size. Miniature Oak Trees—Marvels of Horticulture.

THE most remarkable farm in the world is in California. Farm it is called, yet it is unlike any other farm that ever existed.

It is a magical, ideal spot, where nature is moulded by man; where plants live in a strange, unnatural way. Here giant oaks are made to grow perfect trees, but smaller than the smallest bush; pears are reared as large as watermelons; the gorgeous lily is trained so that it is produced in miniature, so small that it can scarcely be seen, and the marvelous perfection of its delicate make-up must be found with a microscope.

At this farm art has produced such a wonderful change in nature that all the beauties of the world of agriculture and horticulture are shown side by side, but so enhanced, diversified, corrected and changed that in walking through the grounds one comes upon sights that are never seen except in the mystical land of dreams. And yet all this is produced in a most natural way, and is the working out of the ideas of one man.

This scientific farm has been started near Santa Rosa, Cal., and its founder, Luther W. Burbank, has already earned the title of "Edison of Plant Life." The marvel of it all is that he works for purely scientific cause, and refuses to receive wealth or connoisseur's fame. In fact, he so persistently refuses money for his products that he has come to be looked upon as somewhat of a crank.

Burbank abandoned a growing nursery business of \$10,000 a year to devote his time and energy to scientific research in the world of agriculture. A believer in the laws of evolution, this wizard of agriculture produces his wonders under the theory that all the world is akin, and that the relation between the species is so intimate that by constant artificial selection, which is one of the many steps in the production of new types, the lines of life forces can be changed. Working out this theory to make it practical, Burbank has broken up the old habits of plants, and by a constant struggle inculcated new traits.

The wizard has produced results to startle the scientific horticulturist and farmer of the world. He plants the seed of a known specimen of plant life. Suppose it is that of a common quince, with which he has made vast experiments. It grows and puts forth its fruit. Science is then called upon. Cross pollination, hybridization follows, and by constant and faithful work the wizard is rewarded by a new and valuable creation.

There are other creations, the usefulness of which is not so readily recognized. In one part of the great garden there is a perfectly formed lily less than half an inch in diameter, and another snow white flower of the same variety three feet in circumference. These specimens bloom side by side, yet neither is like any other in the variety that are seen in normal size every day.

Another change wrought by this pryer into nature's mysteries is in the pears, which he has developed to a giant size, six times as large as those in general use, and from which they were derived. A plum twelve times the size of the parent species has also been created, and pronounced by good judges to be the handsomest in existence.

The common Delaware plum tree has been developed into a bush three feet high, growing a plum which is indescribably delicious. From this stock, also, has been developed the Slipper plum, so large that two of them will fill a Mason fruit jar.

But it is in the flower kingdom that this modern wizard has produced the new creations that have most amazed the world. He has now in blossom over 80,000 unnamed types of lilies, specimens such as the world knows nothing of, but which are the direct outcome of a type known to the nearest schoolboy. These unnamed varieties alone represent a value of a quarter of a million dollars. Yet the greater number of them will be destroyed, for destruction follows where the created type is not considered superior to the parent stock.

In this veritable Garden of Eden nothing is impossible, for the science of the masterly gardener has been able to make nature produce any sort of tree or shrub, plant or fruit, almost at will. There is a great plot containing the Japanese iris, in which are thousands of these queenly flowers, no two without distinctive points of difference. Every color revealed by the spectroscope, every combination of hue found in the rainbow arch are here mingled in interminable profusion.

The immense garden is conducted so quietly that no one except the great experts of the plant world understand just what is being done. And yet every fruit, as well as every garden vegetable, grass, grain and flowering plant cultivated in the temperate zone is being experimented with, and in thousands of instances new varieties have been evolved or old ones improved upon.

This scientific experimental farm, in its situation alone, is quite as wonderful as the creations almost daily developed. It has every condition of soil and climate best suited to the work of propagating plants, there is a gentle slope toward the east, which permits the full benefit of the morning sun. The soil is light and not overcharged with moisture, but in

the under stratum are many hidden springs, so that the plot of ground is subirrigated.

Conservative as the Edison of plant life is, the benefit already accruing to the world from his new creations in fruits and flowers is incalculable. A potato of his origination, which bears his name, is eaten by Californians and New Yorkers, and forms a part of the diet of the peasant of Ireland and the prince of Italy. His plums, pears, apples, prunes and quinces are carried to every country of the world, while rare flowers which he has produced grow in the parks of kings and others are regarded as treasures in the conservatories of millionaires.—New York World.

Soldiers Ride on Wheels.

For the first time in its history the bicycle has been admitted on a large scale in the army maneuvers of Europe. The operations which recently took place in the south of France, and which are the most extensive since the Franco-Prussian War, include as one of the features a cycling company, which is attached to the Fourth division of infantry in its mock combats against the Third division in the Department of the Aisne. A beginning was made last year by Captain Garard, inventor of the folding army bicycle, who directed about a score of men on wheels, but without regard to the other military operations.

Since then the military bicycle has been approved by the Minister of War as good for actual service in the field, and a company of sixty men, equipped at the expense of the State and placed at the disposition of General Souvois, has just covered itself with glory. The use of the bicycle in the army will be immediately extended in view of the results attained. The new company, it was found, combined the armament and defensive force of the infantry with the rapidity and dash of the cavalry. In addition to speed of movement another great advantage has been found in the comparative silence in which operations can be effected. Those who have seen the soldiers on wheels flying along the roads noiselessly, without the tramp of feet or the clanging of arms, say that it is a veritable phantom company. A double folding bicycle with two mechanics and a chest of tools and detached pieces follows the company everywhere, so that repairs can be made at every halt. If France again should have the misfortune to be engaged in real war these bicycle companies would be multiplied by the thousand and would be sure to give a good account of themselves.—Chicago Times-Herald.

Monkeys as Gold Miners.

Captain E. Moss, who has just returned to London from the Transvaal, tells the story of the monkeys who work for him in the mines: "I have twenty-four monkeys," said he, "employed about my mines. They do the work of seven able bodied men, and it is no reflection upon the human laborers to say that they do a class of work a man cannot do as well as they."

"When I went digging gold I had two monkeys that were exceedingly interesting pets. They were constantly following me about the mines, and one day I noticed that they were busily engaged in gathering up little bits of quartz and putting them in piles. They seemed to enjoy the labor very much, and would go to the mines every morning and work there during the day. It did not take me long to learn their value as laborers, and I decided to procure more. So I immediately procured a number, and now have two dozen working daily in and about the mines."

"It is exceedingly interesting to watch my two pet monkeys teach the new ones how to work, and still stranger, to see how the newcomers take to it. They work just as they please, sometimes going down into the mines when they have cleared up all the debris on the outside. They live and work together without quarreling any more than men do. They are quite methodical in their habits, and go to work and finish up in the same manner as human beings would do under similar circumstances."—Boston Transcript.

The Lovesick Spider.

Some interesting experiments have been lately carried out on the range of vision and sense of color possessed by spiders.

Twenty species of arachnids were selected, and their study and observations were extended over eight successive summers. Apparently when their prey, which consists of small insects, is motionless, they perceive them at a distance of five inches, but when they are moving they sight them at much greater distances, while each other they can see distinctly up to at least twelve inches.

Apparently sight, not smell, guides spiders, and we are told how the males in the mating season throw themselves into quite different attitudes, according as they catch sight of a female or male spider. It was by this mode of expressing their emotions that the range of sight as well as powers of distinct vision possessed by these insects was tested.—New York Journal.

Elephants in Battle.

In a certain sense elephants are still used in battle by Indian troops, but they are only used as beasts of burden and draught for artillery; but in ancient times they were used in the East as fighting animals, and taught to swing chains and bars of metal in their trunks. There is, however, every probability that the last campaign in which they were regularly used in this capacity was that of the year 1601, in which the great Akbar subdued the native kingdoms of the Deccan and established the Mohammedan power in India.—New Orleans Picayune.

An Ass Not Without Reason.

Some interesting comparisons have recently been made by a German savant in what he terms the psychology of animals. He says: "It has often been pointed out that a donkey is not half as stupid as he is popularly believed to be. Less well known is the fact that a horse is far less gifted than he has the reputation for. Wherever you go you can observe that a horse is a tolerably intelligent, good, timid creature, which learns with difficulty when young, and not at all when old. A donkey, on the other hand, is above all things an individuality; a headstrong fellow, who knows, with lightning quickness, what his master wants him to do and frequently does exactly the opposite."

"The elephant, standing in the furthest corner of his house, notices a small piece of sugar at the other end, and appropriates it without delay. But this is less astonishing than when the donkey, being stroked on the back by a visitor, turns round and pushes his head under the stranger's hand, because, for some reason or other, he finds it more agreeable to have his head stroked than his back. The donkey, in this case, acts on a sudden and a very logical idea, while the elephant acts only as a result of much experience."—Westminster Gazette.

How to Tree Squirrels.

Gray squirrel hunting is not for the clown hunter—the fellow who stumbles over fences and goes through the dry leaves as if he liked to hear them rustle. The most expert has to keep at his wits' ends to bring down this wary and sly creature.

The hunter who gets up before it is light and enters the woods at day-break gets the game. Carefully he winds his way to a cluster of oaks—hickory nuts are scarce this year, and acorns will form the winter diet for the squirrels.

Seated upon a stump or stone, the hunter keeps his eyes and ears open. Suddenly, some distance away perhaps, comes the familiar cluck-cluck-cluck. There is no hurry, however. Let him be and watch the tree nearest you. A bough swings and a squirrel jumps to a limb. Now is your time. Aim quickly and fire.

Your first move will be discovered, and unless your No. 7 shot has pierced some part of his delicate anatomy he'll scamper through the trees from limb to limb. If you miss, run for him. He will not leave a tree while you are under it. Some hunters carry opera glasses.—New York Press.

Unknown Russia.

That Russia is still to a large extent an unknown land to the majority of people was impressed upon my mind the other day in reading an account in the Daily News (London) of the Countess Praskowja Ssergerewna Uwarow, who is described as one of the most distinguished women in this enigmatical country, perhaps, indeed, in all Europe. The Countess, who was a Princess Trubetzkoi, married when only seventeen, and at once proceeded to share her husband's scientific pursuits, at times conducting research on independent lines. She inherited from her husband the Presidency of the Archaeological Congress. The Countess is described as being tall and of distinguished bearing. She wears her black hair simply folded in thick braids round her head. She dresses in a plain black dress and a gray hat and feathers. As President she listens attentively to the papers read, and clearly sums them up, adding practical comments. She pays assiduous attention to her duties as President of the Congress, which has recently held its tenth assembly at Riga.—New Orleans Picayune.

Properties of Blood Corpuscles.

The elasticity and plasticity of the blood corpuscles is unrivalled by any physical body. It will assume all sorts of protean shapes, if occasion requires, even under the slightest influences. Elongating itself to the merest thread it will pass through an inconceivably narrow chink; it will wrap itself around an acute, projecting angle (such as a mineral crystal in the blood), or will protrude feelers and tails under the influence of currents. In its natural state it possesses sufficient elasticity to resume its original shape (that of a disc) on the cessation of the modifying influences, but when gum or gelatine has been added, or when the plasma is thickened spontaneously, the corpuscle retains any form it may have assumed till again altered by outside influences.

"Left-Handed" Animals.

It is well known that left-handedness has often been observed in animals. According to Viérot, parrots seize objects with the left paw by preference, or exclusively. The lion strikes with the left paw, and Livingstone stated as his opinion that all animals are left-handed. Professor Jordan has recently verified the statement with regard to parrots. He found that this bird makes a readier use of the left claw for climbing than the right.

Practical Test of Tramping.

Two young men of South Chattanooga, Tenn., who had taken the negative side in a casual discussion of the question whether tramps had good things to eat and an easy life, started out in disguise to test their arguments. Among the first houses from which they were turned away was that of one of the affirmative disputants, and only at the thirteenth house to which they went did they receive a food.

Novel Cure for Hiccoughs.

Incessant hiccoughs caused a patient to be brought to a hospital in Lyons, France. He was cured by inducing him to thrust his tongue far out of his mouth, and thus hold it for a few minutes.

WORDS OF WISDOM.

A dollar never buys much for a stingy man.

Misfortunes and imprudence are often twins.

It is better to be right and poor than wrong and rich.

Better be a lamp in the house than try to be a star in the sky.

There is no virtue in doing right simply because we have to.

How many times good fortune has come to us through our mistakes.

If we try to please everybody we shall soon have the respect of nobody.

Do what you can do well and you will soon be able to do much better.

Time is wasted in trying to make a trotter out of a horse with a broken leg.

The man who thinks his sin will never find him out has deceived himself.

The man dies well who dies with the consciousness that he has done his best.

The man who loafs when he should be at work will have to work when he might rest.

Many people want to move mountains simply to attract attention to themselves.

There are people who would like to do good if it could be done without effort or sacrifice.

Many a man grovels in the dust who has an arm long enough to reach the sky if he would only put it out.

Many a man is screening gravel who might be dressing diamonds had he properly improved his time.—Bam's Horn.

The Emperor of China.

The present Emperor of China is Huang Han, who succeeded to the throne January 12, 1875. He was one of the youngest monarchs who ever ascended the throne, being at the date of accession only three years old. There have been twenty-two dynasties in China, the royal history of this country being better ascertained than that of any other which reaches back to ancient times. With some few breaks, the Chinese have had a regular succession of sovereigns since Fahhi, who, the Chinese say, reigned from B. C. 2852 to 2737. According to Chinese tradition, Fahhi was no less a personage than the Noah of the Scriptures, who, after leaving the ark on Mount Ararat, traveled east and founded the Chinese Empire. Chinese history asserts that several of their early monarchs ruled for over a century each; one reigning over China for 115 years, another for 102, another for 100, and so on. It is considered probable by historians that these figures represent rather dynasties than the reigns of individual sovereigns. China has had, in almost direct descent, with no more than two or three breaks in the history of the royal family, thirty-three sovereigns, ninety-one emperors, two Tartar rulers, six Mogol emperors and three empresses.

Remarkable Criminal Mystery.

One of the remarkable criminal mysteries of recent years in California was revived at San Francisco by the Supreme Court order granting a new trial to Dr. W. A. Sanders, of Fresno County, now serving a ten-year sentence for forgery. Sanders was arrested last February for the murder of William Wootton, an old Englishman, who owned a ranch near the doctor's place. Wootton suddenly disappeared, having been last seen in Sanders's wagon. Sanders told a remarkable story of two men coming to Wootton's place and bringing \$20,000 in cash for his purchase. He said Wootton decided the ranch to them and then went to Fresno to receive additional money. Sanders never saw them afterward, but a few days later he received from Wootton a check for \$1400, which he cashed. This check was found to be a forgery, and for forging it Sanders was tried and convicted. Circumstantial evidence that he killed the old Englishman was strong, but not sufficient to justify a trial for murder. The Supreme Court decides that the lower court erred in not giving Sanders more latitude in his defence. Sanders was prominent in educational affairs for years, and he was also noted for his horticultural experiments.—New York Tribune.

She Showed Him.

Out in the Midway district there is a tall Swedish washerwoman who has a keen sense of right and wrong, and she put her views into practical effect the other day in a very positive sort of way. She was walking along on University avenue when she was overtaken by a bicycle rider who had more speed than courtesy. In place of turning out, he rode up to her and pushed his wheel along so that it struck her, but did not throw her off.

"I thank I show you how to get off a wheel," she said with fire in her voice, "yes, I thank I will," and as she spoke she projected one of her feet and kicked the wheel from under the rider. He fell into the dirt at the edge of the sidewalk and she walked on, and the wheel located itself on his stomach.

And all he could hear as he picked himself up and caressed his bruises was a voice coming to him from a tall, swift-striding Swede: "Ya, ya; I thank I show him; I thank so."—Minneapolis Journal.

He Married Three Sisters.

As the first wife of Erasmus J. Mason, of Stratford Corners, N. L., was dying, she requested that if he married again he select his wife from her sisters. He did so. His second wife died, he made the same request, and a day or two ago he married his third wife from the same family. She was Mertie C. Mason, and is thirty years old, while her husband is thirty-five.—New York Press.

Commercial Brief.

A grocery firm of Liverpool, England, recently sent out a circular asking the aid of a partner, who was to give the current prices of eggs, butter and other goods.

The Jewel Weed a Miniature Cannon.

The most curious of all the ways of spreading the seeds is that adopted by the jewel weed. This is a handsome plant, often seen in shady places along brooks. It owes its name to the dew that in early morning hangs in glistening drops, like small round diamonds, along the scalloped edges of the leaves. Late in summer—in August and September—the jewel weed is covered with pretty flowers, something like snapdragon blossoms, orange-red spotted with brown. Later on, when the seeds are ripe, the lightest touch will make the pods that hold them burst open suddenly, and scatter them far and wide, like shot from a tiny cannon. For this reason the European jewelweed is known as *Nolite tangere*, which is Latin for "Touch me not." The garden balsam, or lady slipper, a relative of the jewelweed, has the same sort of elastically opening pods.—St. Nicholas.

POPULAR SCIENCE.

Mexico has a 130-ton locomotive. Ornithologists have determined that there are 8000 species of birds. It is said that an earthquake occurs somewhere in the earth every hour. The honey bee has two simple or single eyes arranged in a triangle between the two large or compound eyes.

A large proportion of the marine creatures found at a great depth in the colder parts of the ocean are of a red color. Bats are most curiously constructed, the heart's action being aided by the rhythmic contractions of the veins of the wings.

The astronomers have lately discovered timber on Mars, and have reiterated their statement that the canals are double. An error of a thousandth part of a second in an astronomical calculation would mean a difference of two hundred billion miles in the distance of a star.

The latest scheme to fight the gypsy moth in Massachusetts is to spray the foliage with a chemical preparation which afflicts the insect with an incurable dyspepsia. A ton of the water of the Dead Sea, when evaporated, yields 187 pounds of salt; a ton of the water of the Atlantic Ocean eighty-one pounds; a ton of the water of the Pacific eighty-one pounds.

One of the latest uses of mica, according to the Canadian Druggist, is that of an ingenious Australian, who has invented and introduced a mica cartridge for sporting and military guns. A French physicist, M. Chassevant, has found that by adding alcohol to the water the generation of acetylene gas from calcium carbide can be regulated much better than by using water alone.

Mme. Andrieff, of Paris, has given to the French Academy of Medicine a sum of about \$160,000, the interest of which—about \$4800—will be awarded, without regard to nationality, for the discovery of a cure for tuberculosis. A French scientist, M. G. L. Pecece, has come to the conclusion that the north pole will never be reached by the ordinary means usually adopted by arctic explorers. From a special study of the subject—it is not stated where the studies were made, at Paris or at the equator—he has arrived at the conclusion that it may be reached by a submarine boat.

CURIOS FACTS.

Envelopes were first used in 1830.

The best bricks in the world are made by the tribes of Central Asia.

The European hornet is much larger than the common wasp, and has a temper in proportion to its size.

The "Giants Club" in Berlin, Germany, admits to membership no one who is less than six feet in height.

Recent insurance statistics show that if the wife die first, the husband, on an average, survives nine years.

The largest room in the world is in the imperial palace at St. Petersburg, Russia. It is 160 feet long by 150 wide.

A toadstool was found at Sparta, Mich., the other day, which measured 4½ feet in circumference, and weighed eight pounds.

When a dentist in China is pulling a tooth for a patron, an assistant pounds on a gong to drown the cries of the victim.

No human head was impressed on coins until after the death of Alexander the Great. All images before that time were of deities.

A fire at a farmhouse near Axminster, England, was put out recently by pumping on it cider from hogheads, as there was no water to be had.

William Thompson, C. E., of London, received the idea of pneumatic tires from the pneumatic springs which were proposed for carriages in 1845.

An ostrich will never go straight to its nest, but always approaches it with many windings and detours, in order, if possible, to conceal the locality from observation.

Many frescoes, some going back to the fourteenth century, have been discovered on the walls of the church of San Floriano, at Montefiascone, during recent repairs.

A subterranean grave, said to be 10,000 years old, has been recently discovered at Sin Tai, China. The grave contained a pair of vases and candlesticks, besides some ancient ornaments.

There are no sheep in Japan, and wool is not used as clothing, silk and cotton being the staples. There are no pigs—pork is an unknown article of diet, and lard is not used in cooking. Neither are there any goats, or mules, or donkeys.

A circular saw fifty-four inches in diameter at Buck's mills at Jacksonville, Fla., flew into pieces while at full speed and cut things up in a way that shocked the hands. Some of the fragments slit their way through the roof, one piece cut a 6x12 timber in two, and another bit hurled against a block of steel was welded by the impact.

Quail Fly at a Passing Train. Attorney George Levinsky of the Stockton legal firm of Levinsky & Young, was the victim recently of a strange accident as ever befell a member of the bar.

Mr. Levinsky is the attorney for the new Corral Hollow Railroad, which was built to convey coal from the immense Treadwell deposits, near Livermore, to Stockton, and during the recent visit of the Native Sons to Stockton he concluded to take a party over the line to show them the beauties of the scenery and the engineering difficulties that had to be overcome to construct it.

He had a number of flat cars fitted up for seats for his guests, and one of the new engines of the road was hitched to the train and the party went bowling merrily through the hills and valleys toward the mines.

As the excursion train rounded a curve and signaled a crossing, a heavy of quails, aroused from its feeding ground by the noisy engine, rose in a body and, bewildered by the dust and rattle made by the train, flew straight at it instead of away. They reached it just as the car containing Mr. Levinsky and several others were passing, and several of the passengers, moved by a sudden impulse, arose and waved their arms at the birds. One frightened quail flew straight at Mr. Levinsky and struck him fairly in the eye, falling to the floor of the car as dead as though he had been reached by a charge of shot. Mr. Levinsky's eye was severely bruised by the blow, and by the time the party returned to Stockton was so painful that he was compelled to have it treated by a physician.—San Francisco Call.

Mother Goose Legends. Some little-known facts compiled by the Philadelphia American: "Three Blind Mice" is in a music book of 1609. "Little Jack Horner" is older than the seventeenth century. "A Froggie Would A-Wooing Go" was written in 1650. "Pussy Cat, Pussy Cat, Where Have You Been?" dates from the reign of Queen Elizabeth.

The author of "Cinderella," "Jack the Giant Killer," "Blue Beard" and "Tom Thumb" was Charles Perrault, a Frenchman, and written in 1697. "Boys and Girls Come Out to Play" dates from Charles II.

"Old Mother Hubbard," "Goosey, Goosey, Gander" and "Old Mother Goose" were first published in the sixteenth century.

"Humpty Dumpty" was a bold, bad baron, who lived in the days of King John, and was tumbled from power. This history was put into a riddle, the answer to which is an egg.

"The Babes in the Wood" was founded on an actual crime committed in the fifteenth century. An old house in Norfolk is still pointed out, upon a mantel shelf on which the entire history is carved.

A Heavily Taxed Rector. A Lincolnshire (England) rector, writing in the London Times, says he has an income of exactly \$1000 a year, and this year he has paid \$220 out of it in rates and taxes.