

MAN RULES CLOUDS.

EMPLOYING ARTILLERY AGAINST THUNDER AND HAIL STORMS.

As Many as 15,000 Guns Have Been Engaged in This New Warfare Along the Po and Its Bordering Plains—The Battles Take Place at Night.

Travelers in the valleys of the Po and the Rhone during the past season have had an opportunity to witness a new and thoroughly scientific use of cannon in battles fought without bloodshed, yet ending with rout on one side and victory on the other. The vine growers of Northern Italy and of Southeastern France have begun to employ artillery against thunder and hail storms. In many cases the women have been the cannoners and the roar of the contest has frequently recalled that of an actual battle field. As many as 15,000 guns have been engaged in this new warfare along the great valley of the Po and its bordering plains, and government assistance has been given to the combatants in both France and Italy. The enthusiastic reports of those who have taken part in the novel defence of the vineyards are filled with stories of constant success against the enemy.

These battles with storms have thus assumed great practical and scientific interest and importance. It seems to have been demonstrated that it is perfectly feasible by shooting at the clouds of an advancing and gathering thunder storm to break up their array and to introduce so much confusion in their ranks as to prevent entirely the formation of hail, the fall of which during such storms often results in the ruin of many acres of costly vines. A single cannon on a commanding eminence suffices to protect about 60 acres of surrounding land. But isolated guns are not efficient. They must be arranged in batteries covering many salient points suitably chosen with reference to one another, and the system of pickets connected with the guns needs to be as carefully organized as in the case of an army. Many times these battles take place at dead of night. The sentinels seeing suspicious clouds gathering, give the alarm, and immediately at all the stations within the threatened district the guns are manned and, at a signal, are fired in concert at the clouds. Twice a minute the volleys roar at first, and after that more slowly until the danger is past. Blank charges are used, and annular whirls of air, like smoke rings, dart from the muzzles of the guns to a height of a mile or more, tearing asunder the gathering clouds and causing so much commotion in the electrically charged vapors that the conditions which lead to the formation of hail are prevented, and only gentle and refreshing rain falls instead of the dreaded bombardment of icy projectiles.

The best reply, perhaps, to those who doubt the efficiency of this system of defence against storms is that the insurance companies have reduced their rates to the vine growers in the protected regions 33 per cent, since the guns have been in use. What works so well in France and Italy would doubtless work equally well in this country, and Professor E. W. Hilgard has already suggested that the system should be introduced in our middle west, where great damage is caused by thunderstorms.

When a beginning like this is once made nobody is ever able to predict what the end will be. It has long been the dream of some meteorologists that man would eventually attain to a sufficient command over the elements to enable him, if not absolutely to rule the clouds, at least to interfere successfully with their movements and formation. It is an old superstition among many races that magicians and wizards can make and prevent rain and direct the wind in its course. Whether this is half-conscious memory of some past age of human mastery over atmospheric phenomena or a prophetic tendency forecasting the direction of scientific progress, at any rate the success of the vine growers' protective artillery proves that man's control over the powers of the air is not all a dream. A few years ago the failure to produce rain in a season of drought by firing dynamite bombs from balloons discouraged efforts in the direction of the artificial production of desirable states and conditions of the weather, but now it seems that the problem only needed to be attacked from a different side in order to give promise of at least a partial solution. There would be no cause for wonder if in a few years it should be found practicable, by means similar to those employed in Italy and France, not only to protect vineyards from hailstorms, but to dissipate the destructive power of many local tempests and even of the dreaded Western tornadoes themselves.

That the immense atmospheric disturbances, hundreds and thousands of miles in linear extent, which are technically known as cyclones, will ever submit to human control is far too much to expect, but the world will be a pleasanter dwelling place after local storms have been robbed of their terrors, and man will be a proud rider when he can feel that the winged horses of the air obey his bridle rein.—Prof. Garrett P. Serviss, in the New York Journal.

A Socratic Saying.

Socrates had some good, old-fashioned notions. As he used to saunter around in Athens he was accustomed to say: "A horse is not known by his trappings, but qualities; so men are to be esteemed for virtue, not wealth."

HOW A TORNADO STARTS.

The Observations of an Eyewitness of a Nebraska Storm.

One of the most interesting facts concerning tornadoes is the record of how one began. The account was sent to the weather bureau by one of its observers. The following is an abstract: "By A. H. Gale, Voluntary Observer at Bassett, Nebraska.

"Dated, July 28, 1889.

"Mr. A. Brown, five and one-half miles northwest of Johnston, saw the tornado form. He was at work in his barnyard and noticed it coming across his field as a light summer whirlwind, such as is noticed on any still, hot day. Air at the time was calm. Mr. Brown says he was harnessing a horse, and as the light whirl passed him it gently lifted the straw edges of the roof of his cowshed, but had not enough strength to lift his hat, and passed on. At this point it was devoid of any color, and was mainly noticed by the whirl it made among the grass, straw, and chaff on the ground; he watched its onward movement indifferently, and soon saw it gather a color which made it definable. He then paid closer attention to it and noticed it becoming black angry and gyrating vigorously, chips, straws, and dirt fell into it, and were absorbed by it and a smoky veil began to envelop the whirling column as it mounted upward.

"At the same time a funnel began to lower itself from a turbulent low-hanging cloud of an area of about 40 acres; the column and funnel soon connected, and with this union the 'thing' took on a terrifying aspect; up to this time he had no feeling of apprehension. When the whirl passed him he said he was aware of its passage only by its action on the ground. No color. A black cloud above, in commotion, followed the whirl on the ground, which latter was eight or ten feet in diameter. This cloud was alone, separate, and clear from a higher strata of storm clouds above. When passing his point, and as long as within his line of view, he estimated the speed at ten miles per hour, line of path east by south. I will say here that the entire path from start to end was 18 or 19 miles, and in that distance it made a southing from a due east course of two and three-quarters miles, and ranged from one to three rods in width. Two and one-half miles from Mr. Brown's point it crossed a large cornfield, and here it received much of its coloring matter.

"That the affair was at this time in comfortable order was demonstrated by the shock it gave the first house it struck as it left the cornfield—Mr. John Strohm's. Mr. Strohm and his family saw it as it arose along the slant of the cornfield to his house on its edge, and dove for the cellar. The destruction at this place was complete; house of heavy logs, windmill, and tower, and stable, in all seven buildings, completely leveled to the ground, fences upset, broken down. Fence wire woven and interwoven with broken lumber, straw, debris of all sorts, plastered with mud. Every fence post standing in the track formed a dam around which was massed debris of everything imaginable, the whole daubed with mud; it was a picture of desolation and ruin—dismal in the extreme."—Theodore Walters in Ainslie's.

QUANT AND CURIOUS.

Whales from 300 to 400 years old are sometimes met with. The age is ascertained by the size and number of the whalebone, which increases yearly.

The telegraph poles along the Savannah and Statesboro railway, in Georgia, are growing. They are made of cypress, and must have been planted with the roots. They are sprouted at the top, and serve a double purpose. They are shade trees, as well as a support for the wires.

Divorcees are rarely if ever heard of in China; and as for breaking the pledged troth the man binds himself by three solemn oaths to commit harikari if he proves faithless, while the girl by the same oath agrees to deliver herself over to the care of the headman. But it is usual for them to pass over the "Wood Ling" without catastrophe. A widow in China cannot remarry without loss of reputation, and a girl who has lost her intended often takes vows of celibacy in his memory.

Truly there were giants in Colonial days. One Daniel Leake of Salisbury, N. H., made during his lifetime and was paid for a million shingles. During the years he was accomplishing this colossal work he cleared 300 acres of land, tapped for 20 years at least 600 maple trees, making sometimes 4000 pounds of sugar a year. He could mow six acres a day, giving nine tons of hay; his strong, long arms cut a swath 12 feet wide. In his spare time he worked as a cooper and he was a famous drum maker.

It is a peculiar fact that nearly all monarchs favor some unique piece of jewelry. William II wears a small bracelet hidden by his cuff. The Czar of Russia has a repeater worth 4000 rubles, which he prizes very highly. Marie Christine changes her rings several times a day, which she can easily do, as she possesses about 275 of them. The late King of Italy always wore a sapphire chain of platinum. King Leopold of Belgium is a crank on ancient time-pieces, of which he possesses a fine collection. One of the most valuable specimens is a watch that belonged to Marie Antoinette. The Sultan dons a chain shirt of gold and silver, and his hands are covered with a mass of rings of all kinds and sizes.



Monstrosities in Lamps.

All sorts of monstrosities are to be found in lamps. There are all kinds of strange designs to put into them, more, perhaps, than into any one other article made for real use.

Pale Green Enamel.

Time was when white enamel, or rose enamel, or pale blue, was desired in bedroom sets. The green wicker chairs and lounges and green enamel bedroom sets are now in request. It is a pale yellow green, cool looking and very pretty. It is easier to keep such furniture in order than when it is pure white. It is not desirable to have any touch of gilding added. The green chiffonier is a pretty piece of furniture.

Care of Linens.

Linens that have been stained by tea or coffee may be cleansed by moistening the spots with water and holding them over the fumes of a small piece of burning sulphur, or a few sulphur matches. Wash immediately with water in which a little ammonia or soda has been dissolved. Stains that nothing else will remove are often taken out by the vapor arising from burning sulphur, but the material must be washed thoroughly at once.

Using the Odds and Ends.

"Never waste anything" is the advice that greets the housekeeper on all sides. Suet and drippings have their use. Bits of meats and odds and ends of vegetables are over-flowing with edible possibilities, and even stale cake may be made into something more appetizing than cabinet pudding, although cabinet pudding is wonderfully good when proper care and expense are bestowed in the making. The truth is that good cookery can never be extremely plain and inexpensive. The woman who wonders why some one else's hashes and stews and made-overs are delicious, while hers are not, will generally find that she needs to cultivate a more lavish hand when it comes to butter or milk or something in the seasoning line. To make a very good pudding from stale pieces of cake, begin by well buttering a mould that will contain one quart. Add a few raisins and currants and nut meats. Now put in the small pieces of cake with some more raisins and currants until the mould is nearly full. Beat two eggs until quite light, then add to them two cupfuls of milk, a heaping tablespoonful of sugar and a pinch of salt and pour over the cake. Cover the mould and put it in boiling water to cook, being careful that the water does not reach to the top of the mould and so get inside to the pudding. Boil for one hour. When served hot with a fruit sauce, this makes a really good dessert. In fact stale cake has many dishes invented for the sole purpose of taking care of it that far surpass first-hand dishes of less richness.



Onk Hill Potatoes—Cut four cold boiled potatoes and five hard boiled eggs in one-fourth-inch slices. Put layer of potatoes in buttered baking dish, sprinkle with salt and pepper, cover with layer of eggs. Repeat, and pour over two cups thin white sauce. Cover with buttered cracker crumbs and bake until crumbs are brown.

Mayonnaise Eggs—Boil five or six eggs half an hour, cut in halves lengthwise, put whites aside in pairs. Rub yolks through a colander and work to a smooth paste with mayonnaise dressing. Fill the whites and press the halves together. Fill the center of a plate with cress, stand the eggs upon it, surround with overlapping slices of the meat, and garnish with cress.

Brown Bread—Scald one quart of milk and pour it over a mixture of one and one-half pints corn meal and one cupful molasses, one tablespoonful melted butter, one teaspoonful salt and the same of soda, with one egg; turn into a buttered tin and steam four hours. A person once eating this brown bread will never wish for any other kind.

Dutch Peach Cake—Sift together two cups flour, half a teaspoonful of salt and two teaspoonfuls of baking powder. Work in lightly one-fourth cup of butter; stir in one cup milk which has had one beaten egg added to it; turn into a buttered pie tin and press into the top of the dough four peeled, stoned and quartered peaches. Sift three tablespoonfuls of sugar and one of cinnamon, mixed, over the top. Bake and serve with butter.

Peach Pie—Line a plate with plain paste with a pastry jagger cut several half-inch-wide strips of puff paste; put three of them across the pie and then three more at right angles with these and a strip around the edge. Put half a peach in each of these squares, hollow side up. Mix one teaspoonful of cornstarch with half a cup of sugar and one cup of cream. Pour this carefully into the spaces between the fruit. Bake until the paste is a delicate brown.

CURIOS FACTS.

Jesse Feary, a legless and armless inmate of the Cincinnati workhouse, wrote a letter with his teeth, asking for a pardon.

Two large wooden shoes were sent through the mail to Frank E. Beerburg, of Holland, Mich. Twenty-one cent stamps were on each shoe, arranged along the outer edge and over the instep so as to form an ornamentation.

Dr. Johannes Bresler in Freiburg, Silesia, is about to open a museum of a novel kind. It will be devoted to the study of psychiatry and will contain models of various lunatic asylums and samples of every appliance in use in such institutions.

Emmet Boyles, who lives near Rosendale, Mo., has found in a ravine a mine of curiosities. Among the things found are a petrified cat, a petrified white oak log, mussel shells, snails, etc.; also, some fine flint Indian arrowheads and fine specimens of different kinds of ore.

An Austrian inventor has just patented a speaking clock which he claims will be of the greatest value to persons of forgetful and irregular habits. It consists of a clock-phonograph combination. In place of the regular striking attachment is a phonograph, which can be set to speak a sentence at any time desired, thus becoming an unfailing reminder to its owner of the duties of each successive hour.

Henrik Ibsen employs a curious aid in his writing, which is thus described in the Cosmopolitan. "Upon his writing table a visitor saw a small tray containing a number of grotesque figures, a wooden bear, a tiny devil, two or three cats (one of them playing a fiddle) and some rabbits. Ibsen has said: 'I never write a single line of any of my dramas without having that tray and its occupants before me on my table. I could not write without them. But why I use them is my own secret.'"

The Nurse.

The care of the sick can scarcely reach its highest ideal save where personal attachment supplements knowledge and skill. Therefore, it belongs to the life of every woman. There are few households, indeed, where any girl can grow up without some opportunities for this experience. Such opportunities may well be supplemented by lectures, courses of reading and well-planned demonstrations. If every woman could (as she should) under ordinary circumstances undertake the care of the sick in her own home, this would but accentuate the value and raise the status of the "born nurses," who, never happy save in the special exercise of their gift, would then quite suffice for hospital cases and the grand occasions of major operations. The sight of the cap and veil of the hired trained nurse when imported into a household with women members scarcely raises one's ideas of the family morale.—Chambers's Journal.

Kitchen Pastimes.

"Football is my game," remarked the gridiron. "Hoot! It isn't in it with the golf," answered the tea caddy. "Baseball for me," retorted the pitcher. "Prize-fighting's mine," said the mug. "Cards for me," suggested the poker. "Pshaw! Yatching's the only thing," remarked the gravy boat. "Target practice for me," replied the range. "Curling," whispered the upstairs maid's tongue. "Ladies," said the potato masher. "Hunting," hinted the poacher.—New York Commercial Advertiser.

New Uses For Blotting Paper.

The manufacturers of blotting paper find their market constantly extending. Here are some of the new uses to which it has been successfully put: It is employed instead of corks as stoppers for bottles, for capping the hammers of pianos, tailors use it for stiffenings in linings, jewelers find that it serves very well for polishing. Electricians have discovered that, treated with certain baths, it is an excellent non-conductor. In Germany bathing suits are made out of it. In hospitals it is used in place of linen for bandages, and after each dressing of a wound the bandage is burned.

Largest Induction Motor.

What is said to be the largest induction motor in the world is in use at the Geneva water works, and is used in operating a centrifugal pump, running at 455 revolutions per minute. This motor is of 109 horse power. It works on a two-phase circuit of 5000 volts. The combination is employed to pump water to a height of 400 feet.

Insect Eggs by the Ton.

It is difficult to comprehend the significance of the figures given by the report of the Argentine Commission for the extermination of locusts, according to which in 1897-S over 20,500 tons of these insects and over thirty-three tons of locust eggs were destroyed, and four-fifths of these in a single province, that of Santa Fe.

Needed.

"I recommend to future generations," said Uncle Nathaniel, as he put away his bandana handkerchief, "that they encourage the growth of two noses—one to take cold in, the other for general use."—Harper's Bazar.

The New Woman's Progress.

A number of ladies of Albuquerque have organized a rifle club, and nearly every afternoon may be seen practicing at targets placed in the western part of the city.—Albuquerque (N. M.) Journal-Democrat.

How Mothers may Help their Daughters into Womanhood



Every mother possesses information of vital value to her young daughter. That daughter is a precious legacy, and the responsibility for her future is largely in the hands of the mother. The mysterious change that develops the thoughtless girl into the thoughtful woman should find the mother on the watch day and night. As she cares for the physical well-being of her daughter, so will the woman be, and her children also.

When the young girl's thoughts become sluggish, when she experiences headaches, dizziness, faintness, and exhibits an abnormal disposition to sleep, pains in the back and lower limbs, eyes dim, desire for solitude, and a dislike for the society of other girls, when she is a mystery to herself and friends, then the mother should go to her aid promptly. At such a time the greatest aid to nature is Lydia E. Pinkham's Vegetable Compound. It prepares the young system for the coming change, and is the surest reliance in this hour of trial.

The following letters from Miss Good are practical proof of Mrs. Pinkham's efficient advice to young women.

Miss Good asks Mrs. Pinkham for Help.

June 12th, 1899. "DEAR MRS. PINKHAM:—I have been very much bothered for some time with my monthly periods being irregular. I will tell you all about it, and put myself in your care, for I have heard so much of you. Each month menstruation would become less and less, until it entirely stopped for six months, and now it has stopped again. I have become very nervous and of a very bad color. I am a young girl and have always had to work very hard. I would be very much pleased if you would tell me what to do."—MISS PEARL GOOD, Cor. 29th Avenue and Yeslar Way, Seattle, Wash.



The Happy Result.

February 10th, 1900. "DEAR MRS. PINKHAM:—I cannot praise Lydia E. Pinkham's Vegetable Compound enough. It is just simply wonderful the change your medicine has made in me. I feel like another person. My work is now a pleasure to me, while before using your medicine it was a burden. Today I am a healthy and happy girl. I think if more women would use your Vegetable Compound there would be less suffering in the world. I cannot express the relief I have experienced by using Lydia E. Pinkham's Vegetable Compound."—MISS PEARL GOOD, Cor. 29th Avenue and Yeslar Way, Seattle, Wash.

\$5000 REWARD Owing to the fact that some skeptical people have from time to time questioned the genuineness of the testimonial letters we are constantly publishing, we have deposited with the National City Bank, of Lynn, Mass., \$5,000, which will be paid to any person who can show that the above testimonial is not genuine, or was published before obtaining the writer's special permission.—LYDIA E. PINKHAM MEDICINE CO.

Blacksmithing Without a Fire.

A blacksmith's shop without a forge is a novelty, indeed, but there are several in operation, declares the Chicago Inter-Ocean. In these shops there is applied a patent horseshoe made of a special steel which is soft enough to permit of its being hammered and shaped, as far as may be necessary, without heating. There are anvils here, and hammers are used, so that these time-honored accessories of the blacksmith's shop still remain here, but there is no fire, no bellows, with a grimy, swarthy, stalwart blacksmith swaying on the handle with one hand, while he gently pokes the burning coal in the forge with the other. There is no smoke here and no flying sparks, nor is there the long familiar odor of the burning hoof when the hot shoe is laid up against it. These places are horseshoeing parlors.

One of these horseshoeing shops occupies a long room that was designed for a store in a building that stands on a corner. The shop proper, occupying the greater part of the space, opens on the side street. The office, or reception room, of the horseshoeing parlor, at the front end of the store, occupies a square of space of the width of the building, and running back about 20 feet, where an office railing is placed, dividing the reception room from the blacksmith shop.

On the floor of the office, or reception room, there is a \$200 rug; there are comfortable chairs about, for visitors or for customers; there is a desk for the manager, and there are potted palms. And all this is separated from the shop itself only by that office railing across the inner end of this reception room, beyond which one sees down the length of the shop men busily engaged shoeing horses in this blacksmith's shop without a fire.

Forestry—Its Need in This Country.

American forestry has not yet gone beyond the preservation of our old forests, for general reasons. Tree culture for profit, which forestry signifies in the Old World, is here not thought of—nor will it be while we have forests to burn. In the Old World forestry is a business. The artificial, hand-made forests of France, and especially Germany, supply most of the timber used in those countries. England depends on outside sources almost wholly for its timber. England paid about \$10,000,000 for foreign timber last year. Her bill is annually growing larger. But it is slow work to make a profit on timber planting. Thirty-five years is long to wait.—Mechan's Weekly.

Canada's foreign trade has grown \$46,000,000 during the past year.

All the flowers of the Arctic region are either white or yellow, and there are 702 varieties.

Beware of Ointments for Catarrh That Contain Mercury.

Mercury will surely destroy the sense of smell and completely derange the whole system when entering it through the mucous surfaces. Such articles should never be used except on prescriptions from reputable physicians, as the damage they will do is ten fold to the good you can possibly derive from them. Hall's Catarrh Cure manufactured by F. J. Cheney & Co., Toledo, O., contains no mercury, and is taken internally, acting directly upon the blood and mucous surfaces of the system. In buying Hall's Catarrh Cure be sure to get the genuine. It is taken internally, and is made in Toledo, Ohio, by F. J. Cheney & Co. Testimonials free. Sold by Druggists; price, 50c. per bottle. Hall's Family Pills are the best.

Two British ships, each over a century old, were still sailing the seas last year.

Best For the Bowels.

No matter what ails you, headache or a saucer, you will never get well until your bowels are put right. CASCARET helps nature, cure you without a gripe or pain, produces easy natural movements, cost you just 10 cents to start getting your health back. CASCARET Candy Cathartic, the genuine, put up in metal boxes, every tablet has C.C.C. stamped on it. Beware of imitations.

It is a noteworthy fact that farm wages run highest in Scotland, where schooling has long been better than elsewhere.

It requires no experience to dye with FURNAM PEARLESS Dyes. Simply boiling your goods in the dyes is all that is necessary.

It is estimated that rural free mail delivery is increasing the value of land in Colorado, where it is in operation, \$5 an acre.

To Cure a Cold in One Day. Take LAXATIVE BROWN QUININE TABLETS. All druggists refund the money if it fails to cure. Dr. W. GROVE'S signature is on each box. 25c.

The distance from Liverpool, England, to Halifax, N. S., is 2,450 miles.

Piso's Cure for Consumption is an infallible medicine for cough and cold.—N. W. SAMUEL, Ocean Grove, N. J., Feb. 17, 1900.

The prairie chicken, it is predicted, will soon become extinct in Kansas.

The Best Prescription for Chills and Fever is a bottle of GROVE'S TASTELESS CHILL TONIC. It is simply iron and quinine in a tasteless form. No cure—no pay. Price 50c.

A watch will tick 160,144,000 times in a year if it is kept continuously running.

Drugs have their use, but don't store them in your stomach. Reeman's Peppin Gum aids nature to perform its functions.

Paris consumes more than 2,000 tons of snails annually.