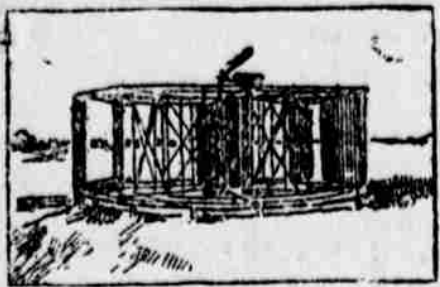


# Making the Desert Blossom



The announcement that a company of Chicago capitalists has completed arrangements for building a large irrigation plant which is expected to reclaim 2,000 acres of arid land in Wyoming marks another step in the new taming of the West. Perhaps no single undertaking now under way means so much to the country and to the world at large as the supplying of sufficient water to this great region, aggregating an area over four-tenths of the total area of the country, and over which the average yearly rainfall is less than half the average in the Eastern States.



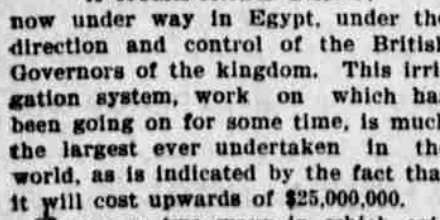
A MERRY-GO-ROUND WIND ENGINE.

Much has been accomplished already. Utah and southern California owe their greatness as agricultural countries to the irrigation ditch, and in a dozen places in Colorado great tracts of land have been redeemed from the desert and made most productive farms. These great plants are as a rule controlled by large companies which have invested thousands in building ditches and reservoirs and which furnish water to a multitude of farmers as gas is furnished elsewhere. In western Kansas individual farmers have largely built their own irrigation plants, and in one corner of the Sunflower State there are more than 1,200 windmill irrigation plants owned by individuals. But after all is said about the wonders which irrigation has accomplished, the fact remains that the work still remaining is infinitely greater. Roughly speaking, it is said that there are now not much more than 8,000,000 acres under irrigation, while the total area which it is estimated may be profitably brought under irrigation, and which will not be productive without it, is estimated to be over one hundred million acres.

As a fair example of what irrigation will do for a country and its people, Rocky Ford, in the Arkansas valley of Colorado, may be cited. Men still young have hunted buffaloes over the site of one of the greatest sugar beet factories in the world, and in a single year Rocky Ford sends to market 300,000 sheep and 800 carloads of melons. All this is due to irrigation, and as a result land has increased in value from \$25 to \$250 an acre.

In eastern Colorado, near the Kansas state line, the largest irrigation system in the country has just been completed. It will furnish sufficient water for 200,000 acres of land, and more than a million dollars has been spent in its construction. The system consists of five great reservoirs, covering 13,000 acres of land, and provided with seven great canals and a number of subsidiary ditches, with a total length of more than 500 miles.

But even this irrigation system is entirely dwarfed by the colossal work



A HOME-MADE GIANT.

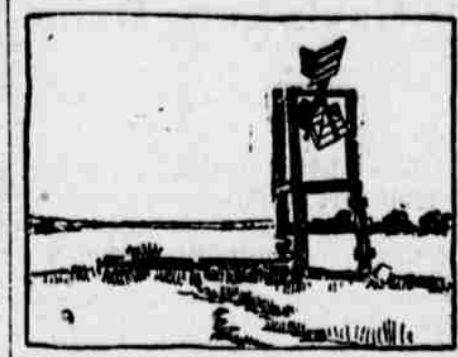
now under way in Egypt, under the direction and control of the British Government of the kingdom. This irrigation system, work on which has been going on for some time, is much the largest ever undertaken in the world, as is indicated by the fact that it will cost upwards of \$25,000,000.

There are two ways in which arid lands may be irrigated. The first and simplest is by means of the so-called gravity ditches, according to which water is diverted from a river or reservoir and flows by the force of gravity through irrigation ditches to the land it is desired to water. In hilly and mountainous country this system has been systematically followed and has proved immensely profitable and successful. But gravity ditches are not practicable on the flat prairie lands which make so large a part of the arid West. As a means of taking their place it was long ago discovered that over almost all flat desert country a plentiful supply of water may be reached by sinking shallow wells. Then came the question of finding power to raise this water to the surface, and out of that need has grown a demand for huge windmills of curious construction. As for the necessary power it has been estimated that the free winds which sweep over the Kansas prairie develop more power than all Niagara during the same length of time.

So immensely important is this question of irrigation that the National

Department of Agriculture has devoted much attention to it. Under the direction of the department a corps of experts is kept constantly in the field with the idea of helping the irrigation farmer. One expert, for instance, is kept busy experimenting with pumps and endeavoring to determine what style is best for the purpose of irrigation. Another expert drives over the arid country and determines the depth from the surface to water in various places and also what is the nature of the water supply. All the results of the experiments and tests are printed in pamphlet form by the Agricultural department and are sent free of charge to any one who may be interested.

One of the great benefits of irrigation is often lost sight of. Not only does the irrigation of a considerable section of land reduce the probability of crop failure in that district to a minimum, but it also has a beneficial influence on other fertile lands which lie contiguous to it. The intensely hot winds which blow across the leagues of barren and heated desert have a bad effect on the crops of the



MODELED AFTER A BATTLE AX.

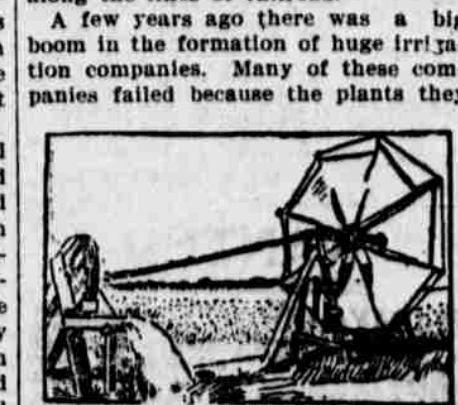
fresher and more fertile lands beyond, as was shown by the partial destruction of the Kansas corn crop during the recent summer by the hot winds blowing from the west. When a desert region is redeemed through irrigation the winds which blow over it lose their sting and are tempered to the growing crops. In this way a desert does harm far beyond its own limits and an irrigated district scatters blessings outside its own boundaries.

Of the hundred million acres of arid land still remaining in the west the government experts have made a thorough survey, and they report that a sufficient water supply is easily available to redeem 95 per cent of it. Government lands open for free settlement are becoming scarcer, but this enormous tract still remains practically untouched, and simply waiting for the touch of water to blossom. It is said by those competent to judge that forty acres of properly irrigated land in Kansas or Colorado will furnish a surer and a larger competency than 160 acres in the east.

The experience of thousands of irrigation farmers has been practically the same. They pay perhaps \$1.25 or \$2, or perhaps even \$5 an acre for their land in an arid and entirely unproductive state. At an average cost of not more than \$100 each of them puts up a tower sixty feet in height and surmounted by a sixteen-foot windmill. This windmill works an eight or ten inch pump in a well twenty feet deep. The water brought to the surface is stored in a reservoir about seventy-five feet in diameter, and which will cost another \$100 to build. With such a plant a man can irrigate thoroughly at least ten acres of land. If he plants ten acres with alfalfa he will have water enough for twenty acres in all, for the alfalfa needs to be irrigated only in the winter time, for its long tap roots run down so deep below the surface that they will find a sufficient supply of moisture even when the surface of the ground is baked and hot.

In this way, with an expenditure of not more than \$250 for an irrigating plant, a man may raise the value of his land from \$2 or \$3 to \$40 an acre, this being a conservative average of the value of irrigated farming lands along the lines of railroad.

A few years ago there was a big boom in the formation of huge irrigation companies. Many of these companies failed because the plants they



A CURIOUS TYPE OF WIND ENGINE.

built were built in the most expensive way possible, because they were not properly planned and managed, and because they failed to secure for residents on their irrigated lands responsible and intelligent farmers and fruit growers.

More recently several large irrigation companies have been successfully launched, most of them building at the same time a great beet sugar factory, where the product of their irrigated lands might find a quick and profitable market. The Rocky Ford factory produced last year more than 15,000 tons of sugar, and every year increases its capacity.

In southern California irrigation,

and irrigation alone, has raised the value of some lands from \$2 an acre to as many thousands of dollars an acre. Even in districts where rainfall is normal it is declared that a modified system of irrigation would be immensely profitable, because it would enable the farmer to avoid the effects of the prolonged droughts and other abnormal weather conditions.

## "FADDY" MEALS IN LONDON.

'Flower Breakfasts' a Popular Form of Entertainment in London.

The fad of "flower breakfasts," which threatened to become a popular form of entertainment in London, is said to have failed of popular approval among the "sassy" people, and so probably will not trouble us on this side of the water. For three seasons a certain "set" has been trying to make them "go." The first season they were popular, the next less so, and the past season hardly were heard of. These breakfasts consisted of dishes made entirely of flowers. Salad made from the blossoms of the nasturtium alternated with caper jelly and myrtle flower soup at these repasts. Usually the flowers of a peculiar species of pumpkin vine constituted the principal dish. They were yellow in color, fleshy and about the size of a silver dollar. These edible blossoms were picked before the petals were fully opened, baked or stewed in fresh milk and flavored with cloves, which, as every one knows or should know, are the unexpanded flowers of an evergreen plant growing in the East Indian archipelago. The feast was finished off with a plentiful supply of candied rose leaves, violets, etc. It was an extremely aesthetic sort of meal, but not filling enough to meet with popular approval. After one of these breakfasts the guests generally went out and got something to eat.

Dinners of sauces have met with more favor than the flower breakfasts and are not infrequently given by epicures searching for new gastronomic sensations. One of the most successful of these sauce dinners was given by a member of a "swell" London club not long ago. The soup was represented by gravy sauce, and in lieu of fish, oyster and lobster sauces were handed around. Then came egg sauce and bread sauce, and for dessert there was brandy sauce. This last course is probably what saved the lives of the guests and host, for they all survived and pronounced the dinner a success. It really seems as if the giver of the dinner should have included in his bill of fare Worcestershire, tomato catsup and tabasco. A dinner was given at the Hotel Cecil in London the other day at which everything served began with "E." There were "clear" soup, chickens, chops, claret, champagne, coffee, cutlets, carrots, custards, champignons, curry, currants and cucumbers, besides many more articles of food beginning with "C."—New York Press.

## The Cleansing Ball.

The following is an excellent cleansing ball to prepare for use on clothes and woollen fabrics generally, says "What to Eat." Dissolve a bit of white soap the size of an egg in enough alcohol to cover it. Mix in the yolks of three eggs and a tablespoonful of oil of turpentine. Work in Fuller's earth till it becomes stiff enough to form into balls and let them dry. When you wish to remove a stain, moisten the fabric with a little water, rub the ball well in, let it dry and brush off the powder. There are three classes of stains these balls cannot remove—ink, iron rust and fruit stains. For ink, pour over milk, and as it becomes discolored absorb it with blotting paper. Then wash out well with tepid water and castile soap. If on white goods, lemon juice and common salt, often renewed, and placed in the sun, are most efficient.

## Troubles of a Lady Lecturer.

A certain lady lecturer tells two good stories against herself. "I was on tour through the provinces," she says. "One night, as I appeared on the platform in a small town, the chairman introduced me to my audience in the following way: 'You have heard of Mr. Gladstone, the grand old man. Let me introduce to you the grand old woman.' This was intended as a sincere compliment. On another occasion a bluff old farmer, who boasted of his ability to look on all sides of a question, announced me as follows: 'This lady's come here to talk about her rights,' he said. 'She's hired the hall, and so she's got a right to be here, and if any of you don't like what she's got to say, you've got an equal right to walk out in the middle on it.'"

## In Round Figures.

Not long ago a lady was giving a lecture, says the London Answers. Her subject was the human figure, and the requirements in the way of proportion, for beauty. She herself was of generous—one may say unwieldy—size, and her manner was supercilious and lofty. She was trying to demonstrate the relative sizes of the limbs as they really ought to be. "For example," she said, "twice round my thumb"—she held it up—"once round my wrist; twice round my wrist, once round my neck; twice round my neck, once round my waist." Here she paused, and a shrill voice from the audience exclaimed: "Twice round your waist, once round Hyde park!" The lecturer hastily passed on to another branch of the subject.

## Presumption.

"That isn't the car that man wanted to take." "He ran hard enough for it. How do you know it isn't the one he wanted?" "Because he managed to catch it."—Philadelphia Record.

## LIVED LONG ON THE EARTH.

Evidence that Men Existed Before Date Fixed by Accepted Authority.

Fortunately there is no chance for a religious controversy over recent discoveries that seem to upset the accepted chronology of the Bible. That chronology is admittedly of human origin and therefore liable to be fallible. Professor Flinders Petrie, in a lecture recently delivered in London, presented some rather startling theories as to the antiquity of the human race that will doubtless give rise to more or less dispute. The professor's proofs as to his theories are said to be incontrovertible. He contends that there is an unbroken chain of historic record going back to 5,000 B. C., carries objects of art and industry that bear history back 2,000 years further, thus making the indubitable record of human history cover 9,000 years. Yet dates 7,000 B. C. do not take us back to the beginning. There are traces, he says, of a civilization that came to Egypt from some other country. The earliest graves have figures of a race of bushmen of a type like that discovered in France and Malta, suggesting that one race formerly extended from northern Africa into Europe. Beyond these bushmen there are figures of women captured from still earlier races—probably of the palaeolithic age. Of this latter age there are many evidences in the elevated plateau east of the Nile, where, in a region at present wholly uninhabitable, are found the remains of many settlements. The existence of a population here indicates that there was a time when the climate of Egypt was totally different from what it is today—when a rainfall fertilized lands now deserts. Such a climate could hardly have existed unless the desert of Sahara was then under water. A rise of the Saharan area, coinciding with a sinking of the present bed of the Mediterranean, would explain the indisputable fact that the fauna, flora and racial affinities of northern Africa are with Europe rather than with the parts of Africa south of the Sahara.

Egypt supplies us, according to Professor Petrie, with physical evidences of the antiquity of man in the shape of 9,000 years' continuous remains, but other countries, notably Mesopotamia, furnish similar indications. The "finds" made by recent explorers in the sites of the old cities in the valley of the Euphrates seem to prove the existence of an empire extending from the Persian gulf to the Mediterranean at a period when Egypt itself was in its infancy.—Chicago Chronicle.

## LOUBET'S ECONOMY,

Substantial Food the Kind the French President Likes.

Besides his salary of \$150,000 a year, the president of France has a civil list of \$128,000 a year and an allowance of \$60,000 a year for traveling expenses. This allowance for traveling expenses was voted to Marshal MacMahon to keep him from "running wild" with the Bonapartists, but he never touched a franc of it. It was allowed to accumulate until M. Grevy became president, when that worthy drew the arrears and pocketed them. The allowance for traveling expenses is largely clear profit, for the president travels free, and all he disburses when on a journey is given in the way of tips. He is exceedingly generous in regard to tips—as well he may.

In spite of his large income President Loubet exercises a rigid economy at the Elysee. At ordinary luncheons there is a handsome "set out" but the fare is more substantial than luxurious. The food left over from the dinner of the night before is arranged with all the skill of a "chef" to figure on the luncheon table, the cold vegetables being served up as "salade russe." The dinners vary in luxury, according to what guests are to be present. When only ordinary people have been invited to partake of the presidential hospitality the cost is about \$4 a plate. When a lot of really "first chop" people are to be present the cost is \$6 a plate, and when a visiting royalty is coming to dinner the cost goes up as high as \$8 a plate. The dinners are supplied partly by a pastry cook shop and partly by the kitchen force of the palace. After dinner the wife of one of the officers of the presidential household slips out and holds a consultation with the chef, at which it is decided what is to go from the dining room to the servants' table and what is to be fixed up for tomorrow's luncheon. Dishes supplied from the pastry cook shop and not broken are taken back at a reduced price. Yet with all his economy it is said that President Loubet does not save a cent out of his pay and allowances. Whenever he needs an extra allowance for some special "function" it is cheerfully granted him by the chamber of deputies. The president gives two balls each year, which cost him \$15,000 each. He also gives garden parties, concerts and theatrical matinees, but they are arranged so as to cost little or nothing.

## Vegetable Butter.

Is the cow to be altogether eliminated from the dairy? The British consul-general at Marseilles hears that "a new fatty substance, for consumption in the United Kingdom, to take the place of butter, is being put on the British market. It is called vegetaline, and is nothing else than the oil extracted from copra (dried coconut), refined, and with all smell and taste neutralized by a patented process. It becomes like sweet lard, and is intended to compete with margarine on the breakfast table as a substitute for butter." A Liverpool firm, we are told, will this year help in an effort to popularize the stuff.—London Telegraph.

## POISON OF INSECTS.

DANGER FROM THIS SOURCE MUCH OVERESTIMATED.

Bees Stings May Cause Death, but the Fatal Cases Are Rare—Formic Acid in Poison of Ants, Wasps and Bees.

An interesting article on insect poisons is contributed to the New York Sun by Dr. L. O. Howard, chief entomologist of the United States Department of Agriculture. Dr. Howard points out that the danger from this source is very generally over-estimated in the popular mind. Everywhere among civilized people, as well as among uncivilized races, there exists superstitious regarding perfectly harmless insects. For example, the common dragon fly or devil's darned needles, are feared very generally by English-speaking races and children in this country think that these harmless insects will sew up their ears. Much of the common superstition about spider bites is totally unfounded, while the stories about scorpions and centipedes are grossly exaggerated. The effects of intense nervous fear, following a physical injury of an insignificant nature, are well understood by the medical profession. Hence it is not difficult to understand cases of severe nervous prostration, and even death following a sting or a bite from a comparatively harmless insect. The truly poisonous insects, that is, insects which possess poison gland and secrete poison with their bites or stings, belong in the main to two classes. Either they sting for protection, as with the bees, certain ants and certain wasps, or they use the poison to assist in the capture of their prey, as with the digger wasps, certain pedaceous bugs and all spiders. The mosquito belongs to a third class, and the purpose of the poison which it injects is not fully understood. Insect poisons, as a rule, were undoubtedly developed for use against other insects. Therefore, they are small in quantity, and, generally speaking, are serious in their effects only upon other insects. The exact nature of the poison is not well understood. In ants, wasps and bees it contains essentially of formic acid. Cases are on record of the death of human beings as a result of the injection of poison with the sting of bees and wasps, as well as with the bites of spiders. Such cases, however, are rare. A number of cases are on record of death from a multitude of bee stings. I know of a case, well authenticated, of the death of a middle-aged woman from a single bee sting. The physical condition of the patient undoubtedly had much to do with the fatal result. Another case of similar nature came under the observation of Dr. William Frew of England, in 1896. The patient, a young lady of 23, was stung on the neck, just behind the angle of the jaw, by a wasp, the sting of which was extracted by a servant. A solution of arnica was applied and, as the patient felt ill, she was assisted to bed. She complained immediately of a horrible feeling of choking and of pains in the abdomen. The neck swelled rapidly, agonizing, and she died fifteen minutes after being stung. Dr. Frew saw the body about two hours after death, and found the neck and lower part of the body much swollen. The tongue was swollen to such an extent that it filled the mouth. The young lady was of a nervous, excitable temperament, and had shown symptoms of weak action of the heart.

The stings of bees and wasps have very different effects on different people, and without doubt persons who habitually handle bees become immune to their poisons. Herbert H. Smith, who is a professional collector of insects, catches bees and wasps in his net and removes them with his thumb and forefinger. In his case, the forefinger is stung so often that it has become thoroughly inoculated, and stings upon this finger produce no effect, but if he is stung on the back of the neck or in some other part of the body the sensation is as painful as it is with another person. Authentic cases of death from spider bite are rare, although cases reported are of almost weekly occurrence. I have investigated more than a hundred such reports in the United States in the past ten years. In many cases the reported facts were entirely erroneous; in the majority of cases no spider was seen to inflict the bite; there were almost no cases in which the spider was seen to bite and was saved for examination.

## A New Milk Adulterant.

A new milk adulterant has been discovered by the dairy inspectors in use in Minnesota. It is called viscogen, and is composed of sugar, lime and water. It has the effect of making milk appear richer than it is, as the lactic acid in the milk turns the lime to a thick, white substance that assimilates with the milk and improves its looks while it does not injure the taste. It is not considered injurious to health.—Philadelphia Times.

## Discontented Cinderella.

Cinder's Fairy Godmother—Why, what's this? You crying, Cinderella? And after all I've done for you, you discontented girl! Didn't I give you rich clothes and a coach and six? Cinderella—That's just it. When you gave me the coach and six, you led me to believe I'd be the biggest thing at the ball, and when I got there I found four of the others had automobiles!—Harper's Bazar.

The itinerant musician steals many a march on the composer.

## WORTH MORE THAN SILVER.

Colorado's Fields of Alfalfa Exceed Her Mines in Value.

Great as is the wealth of the state of Colorado in silver she has a far more valuable product in the royal purple alfalfa that supplies fodder for the innumerable herds that roam the plains and feed in the valleys. Last year the value of the alfalfa crop was placed at \$10,000,000, yet that does not represent its contributory worth. In 1862 the introduction of this grass into the state solved the problem of forage, which up to that time had puzzled the pioneers, who had not been able to raise successfully any other form of forage. Alfalfa made possible the great stock growing industry of the state. Last year the aggregate number of horses, cattle, hogs and sheep, according to the assessors' returns, was 4,000,000, valued at \$45,000,000. Excepting the range sheep and cattle and some horses in the cities alfalfa formed the greater part of the food of all these animals. Thus dairying, a new but rapidly developing industry, depends on the alfalfa. The great grain farms and potato ranches need this product as well. Alfalfa is peerless as a soil renovator and enricher. Its long roots, penetrating to a depth below the surface that other plants cannot reach, gather the needed elements and, decaying, liberate them for the benefit of future crops. The Colorado farmer has learned that rotating crops of wheat and alfalfa make the average yield of wheat in Colorado 25 bushels to the acre, while the average for the whole country is less than 14 bushels. The same rotation has produced the famous Greeley potato, as inimitable in its way as the Rocky Ford melon. The Colorado stock raiser has discovered that cattle may be fattened at home without sending them to corn states, and that alfalfa produced beef, not tallow. He has discovered that pigs turned into the alfalfa patch during the summer are ready for market in the fall, and that "alfalfa mutton" brings the top price in the east. The small rancher knows that his chickens, geese, ducks and Belgian hares are finer for the alfalfa that forms part of their daily food, and that his alfalfa honey equals, if it does not excel, the delicious white sage honey of California.

## AN ECCENTRIC DINER.

How a French Millionaire Spent His Fortune at the Paris Cafes.

Paris is par excellence the city of gourmets and cranks, and many a story concerning them has added to the gaiety of the nation. Here is one of the latest, told by a well-known French head waiter. One of the regular customers of a famous Parisian restaurant used to be a short, thin, shy and shabbily dressed man, whose name no one knew, but who gave out that he was a butter dealer, for which reason he was called the butterman at the restaurant in question. He ate next to nothing, but his soup tureen, filled with a soup specially prepared for him, was always put before him. He took a few spoonfuls and had it taken away. Next came a whole fillet of beef, from which he cut the tiniest slice. Then followed four quail or a large chicken, of which he ate one mouthful together with two lettuce leaves and one radish. His dessert was four grapes—never a single one more—and a cup of coffee. A bottle of the best claret and another of the best champagne were served with the repast, but he only touched his lips with a drop of them, and let them go. He took two of these meals a day, and the price for each meal was 120 francs. But this was not all. Every time the butterman got up from his extraordinary meal he gave 40 francs to the head waiter, who put his food on his plate, since the guest did not like to handle spoons or dishes; 20 francs to the waiter, 10 francs to the lady cashier and 5 francs to the porter. Thus each meal came to 300 francs. The head waiter of the restaurant often did slight errands for him, buying his cigars, etc., and took them to the Grand Hotel, where the butterman lived. The little old man would then open the drawer of a wardrobe filled with heaps of banknotes of from 100 to 600 francs in value and with an enormous mass of gold pieces. "Pay yourself," said the owner, and the head waiter did so, putting the bills before his patron, who never deigned to look at them. One day the mysterious millionaire went away and was never seen again.—Westminster Gazette.

## Original Home of Golf.

The Scotsman contends that golf is a Scotch sport, to which poetical reference was made in Adamson's "Muses Threnodie," published at Perth as long ago as 1638. The terms used in the sport are for the most part Scotch. But the Dutch assert that it was first played in Holland on the ice, and before 1638 the Dutch poet Bredero described how "the golfer, with ice spurs on, stands ready to smile with ashen club weighted with lead, or his Scottish creak of leaded box." But while this may be the earliest poetical reference to the game, it does not show that Holland is the original home of golf. The reference to the "Scottish creak" seems at first sight to point rather to Scotland.—Baltimore Sun.

## A Social Sherlock Holmes.

"She claims to be from the East," we said, referring to the new arrival. "I have my doubts," remarked the observant person. "Have you noticed that when she shakes hands she only raises her hand to her chin. I do not think she is from any farther East than Pittsburg." It is well, when in society, to take notice of these little things.—Baltimore American.