THE LEMON AND HANDKERCHIEF TRICK.

This was one of Herrmann's favorite tricks, and it affords a very good example of his style of working. The performer comes forward requesting the loan of a lady's handkerchief. While it is being procured he produces from the hair or whiskers of one of the spectators a lemon which he carelessly thrusts under somebodys nose in order to prove its genuineness. (This lemon which, of course, was palmed, is a prepared one from which the pulp has been scooped out, and which contains a substitute handkerchief, so cannot be handed for examination.) Turning for an instant towards the stage, he tosses the lemon on to his assistant, who catches it, and places it on the table. The momentary turn from the audience enables him to get from under his waistband, and to palm, a little bundle of pieces of cambric, each about four inches square. Taking the borrowed handkerchief he rolls it into a ball between his hands, and hands it (apparently) to some one to hold, in reality substituting the torn pieces of cambric. He then turns, and takes a few paces towards his table, meanwhile tucking the handkerchief under his waistcoat, and taking therefrom in place of it a strip of cambric, about four or more feet long and four inches wide rolled up into a small compass. This he palms. Suddenly turning back he exclaims, My dear sir, what are you doing with that handkerchief? I never told you to do that! The innocent holder looks up in astonishment, but the performer continues: Will you have the kindness to open the handkerchief? He does so and finds it all in pieces. After a little chaff about making him pay for the damage, the performer says, Well I suppose I must show you how to restore it. Here he again takes the pieces and folds them together, saying, See you must take them as I do, and rub them very gently with the left hand. Substituting the prepared slip he hands it to him; but, when he begins to cut exclaims again, Dear me, what are you doing now. I told you the left hand, you are making matters worse than ever. The handkerchief is now found to be a loud strip. The performer endeavors to induce the owner to accept it in this shape, which he answers her is the newest style, but she naturally objects and begs that it may be restored to its original condition. For that purpose, the performer rolling the slip into a ball, places it in his magic pistol and rams it down with his wand. Appearing to reflect for a moment, he says, Where shall I fire it? Ah! suppose I aim at that lemon on the table. Bang! goes the pistol, and the performer, taking a knife cuts the lemon all around (flinging the rind carelessly on the stage), and produces the substitute handkerchief (professedly the original). He comes forward to the audience with it, and after thanking the owner, makes a gesture of returning it, but as if struck by a sudden thought checks himself and says, I'm afraid it smells rather strong of lemon. Will you allow me to scent it for you? I have some capital cologne here. Going back to his table, he places the handkerchief on a plate, and pours on it, turning as he does so to the owner and saying, Please tell me when you think there is enough. While his back is turned, the attendant, who has been standing by holding a lighted candle with a mischievous wink at the company, tilts the candle and sets the handkerchief on fire. The performer apologizes for his assistant's stupidity but appeals to the company to bear witness that it was no fault of his, and bringing forward the plate, with the handkerchief still blazing, offers it to the owner. She, of course, declines to take it, and the performer, remarking You don't like it in this condition well, then, suppose I put it in paper for you, places the plate on the floor telling the assistant to put it on the table, and runs off to get the paper. The attendant tries to lift the plate, but finds that it burns his fingers. However, after several attempts, getting the plate a little nearer at each, he manages to place it on the table. This little by-play amuses the audience, and gives the performer the few moments which he requires for his preparations behind the scenes. Coming forward with a sheet of clean white paper, he wraps therein the still blazing handkerchief, crushing it together so as to extinguish the flames. He offers the packet so made to the lady, who, believing that it contains nothing but ashes, declines to receive it. When the professor, tearing the paper apart, pulls out the handkerchief perfectly restored, while the burnt fragments have vanished. The effect last mentioned is produced by the use of a double paper, pasted together round three of its sides, and thus forming a kind of bag in the centre. In this bag the performer, during his momentary absence from the stage, places the genuine handkerchief, folded so as to occupy as little space as possible. The handkerchief, therefore, lies between the two thicknesses of the paper, and when the rolled up packet is torn open from outside, may be removed without disturbing the burnt fragments, which still remain inside the paper.

Where it is necessary, as for the purpose of this trick, to introduce some article into a lemon, the necessary preparation should be made as follows: A lemon with a thick hard rind should be selected, and a plug-shaped piece about an inch and a half in diameter should be scooped with a sharp knife out of one end. The pulp may now be removed leaving the rind a mere shell. While the piece originally cut out will form a stopper, which may be secured in place by thrusting a hairpin or a piece of wire through the fruit and plug from side to side, and ripping off the ends flush with the outer surface. When the performer exhibits the lemon, he takes care to have the cut end towards his palm.

THE ANIMATED CIGAR.

Among the least known hat tricks is a good one known as the "animated" or "dancing" cigar, wherein an ordinary cigar is made to stand upright, balance itself, bow to the right and left, and so forth, on the crown of a borrowed hat.

You begin by saying "I am about to show you a curious experiment in animal magnetism, for the purpose of which I must ask some gentleman to oblige me with the loan of a hat. Thank you. Now will some one else oblige me with a cigar? I am not going to smoke it, I am merely going to make it stand on end, and balance itself on the crown of this hat. Will you assure the company, sir, that this is a common cigar! I don't mean a very common cigar, you know, but an ordinary every day cigar, without any mechanism or preparation about it. You are all satisfied that it is so? Now then to make it stand on end." Of course in a natural way, it would be quite impossible to make a cigar do anything of the sort, but with the aid of a little animal magnetism, it is easy enough. I'll show you how it is done

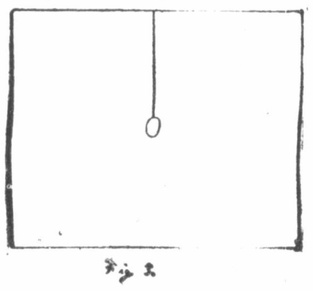

Fig. 3.

First I describe a magic circle on the crown of the hat, the nearer the centre the better. Then I breathe gently on the crown, and also on the cigar, so as to establish a mesmeric relation between them, and then I place the cigar erect within the magic circle." (This is done but the cigar falls) "The influence is hardly strong enough yet, but it will soon develop itself. That is better, the cigar stands erect, you see self-balanced, and you will find that it is now under complete control. Come! cigar, bow to the ladies." (The cigar inclines gravely to the front.) "Now to the ladies on the right. Now to the ladies on the left." (The cigar bends each time in the direction indicated.) "If the conditions are favorable and the influence is strong enough perhaps the cigar might be induced to favor us with a little dance.

"Do you think you could manage a cigar?

(Cigar bends thrice) "You see it bows three times, which according to the approved spiritualistic code means yes. Will the pianist oblige with a little music?" The performer grasping the hat by the brim, moves it round and round in horizontal circles, keeping time to the music, the cigar swaying with the motion.

"You see the cigar keeps time in the most obliging way, but I feel that the power is beginning to fail. Will the owner of the cigar take it from the hat himself, and see that it really is his own, and not a mechanical imitation? You will find it smokes all the better sir, for having gone through this little experience." The secret lies in the use of a very simple piece of apparatus:

Fig. 5.

a rod of hard wood six inches long and five-sixteenths of an inch thick, with a little cup or thimble at one end and a strong sharp needle an inch and a quarter in length projecting from the other. (See Fig. 4.) This is placed needle downwards, in the left sleeve of the performer, and after the hat is borrowed is allowed to slip down it to it. During the performers first pretended endeavor to balance the cigar on the crown of the hat, he applies the needle (with the left hand, which holds the hat) to the centre of the crown inside, and presses the needle through it. This, however, is done very gradually so that only the extreme point shall pass through in the first instance.

As soon as he sees the point emerge from the surface he covers it with the lower end of the cigar, and thrusts it home within the body of the cigar. The hat may now be transferred from hand to hand, or tilted in any direction, but the cigar will still remain upright, its weight being counterbalanced by that of the wooden rod within. (Fig. 5.) If the hat be moved round and round in circles, the rod sways from side to side and so communicates a corresponding movement to the cigar. By inserting the middle finger of the hand which holds the hat into the thimble at the lower end of the rod, the cigar may be made to incline in any given direction and so to bow to the company and so forth. When the owner of the cigar puts forth his hand to take it back, the performer at the same moment withdraws the needle from below, and lets the little rod again drop into his sleeve when both cigar and hat will of course stand any amount of examination.

SCIENCE NOTES.

The sewers of Paris are now being searched for treasures, owing to the recent discovery by workmen of a bundle containing $120,000 in securities.

"The latest American idea for the sheathing of vessels to prevent fouling and corrosion is to sheath them with glass plates, which is said to be entirely feasible." The above item is from The Engineer, of London. While this may be true, we have heard nothing about it, and it sounds suspiciously like paper bicycles and other things of like order, which seem to exist only in the minds of newspaper reporters.

The British Eastern Australasian and China Telegraph company filed a claim with the State Department of the United States for $36,000 damages for cutting its cable by Admiral Dewey at Manila last May. The United States Attorney-General has now rendered a decision finding that, according to international law, there was no ground for a claim for indemnity where a military commander cuts a cable within the territorial waters of an enemy.

Petit Bleu, of Brussels, recently had a curious experience in which it was shown that no one is indispensible in this world. The compositors having struck, the text accompanying the illustrations was written out on the typewriter; then the typewritten sheets and the copy for the pictures were pasted on large sheets of cardboard and the whole was reduced by photography to the required size. From this negative a photo-engraving was made from which the paper was printed.

The authorities of the Southern Metropolitan Gas company, an English corporation, have added workingmen directors to the board of the company. The report stated that the profit sharing system, which was introduced in 1889, continues to justify its existence, as it induces a generally intelligent interest in the welfare of the company on the part of its officers and men. Two of the workmen were elected by the workmen shareholders to sit on the board, and the result so far has proved very satisfactory.

According to The Medical Sentinel, it has been ascertained by careful observation that certain families in a village of St. Ourn, France, enjoy absolute immunity from tuberculosis. They are gardeners of excellent habits who intermarry among themselves and keep apart from the immigrant laborers. The latter suffer severely from the disease. It is considered probable that hygienic conditions are not the sole cause of the difference, but that by a kind of natural selection a race immune from tuberculosis has been developed.

Caisson disease, or compressed air disease, is a malady which is often contracted by those who are engaged in engineering work in positions where they are subjected to great air pressure. Dr. Thomas Oliver has observed several cases of this kind, and he has arrived at the conclusion that the symptoms are best explained by the theory that the malady is due to increased solution by the blood of the gases met with it in compressed air and the liberation of these gases during decompression. The increased solution of the gases is due, of course, to the greater pressure upon the person of the caisson worker.

The old "Physic Garden," at Chelsea, which was leased to the "Apothecaries' Company" in 1673, and presented to them by Sir Hans Sloane in 1722, is to be placed under a Committee of Societies and the garden is to be maintained for promoting the study of botany with special regard to the requirements of general education, scientific instruction, and research in systematic botany, vegetable physiology, and instruction in pharmacy, as concerns the culture of medicinal plants. New offices, lecture rooms, and laboratories are to be provided. The old "Physic Garden" was one of the oldest, if not the oldest, botanical garden in the world, and is of considerable historical importance.

NOTES OF NOTABLES.

Colonel Edmond Bainbridge, the Superintendent of the Royal Laboratory at Woolwich, who has been made head of the ordnance factories, entered the Royal Artillery in 1860, and has been associated with Woolwich in various capacities for many years.

M. Ernest Legouve has completed his ninety-second year. He is the senior member of the French Academy, both by election and by age. Crowned for the first time in 1829, he was elected in 1854, and only a few days ago received the "Prix Jean Reynaud."

The request made to Mr. Ruskin that Mr. Holman Hunt should paint his portrait has received a negative. His present state of health, say those who know him best, would not permit him to face the fatigue of sitting to so laborious and conscientious a painter as Mr. Holman Hunt.

Lady Georgiana Grey, daughter of Earl Grey, the famous English statesman, has just celebrated the ninety-eighth anniversary of her birth. Lady Georgiana is the oldest resident of Hampton Court Palace, where for some years she has occupied a suite of apartments. Considering her age she enjoys remarkable health, and takes drives almost daily.

Fraulein Elsa Neumann was "promoted" to her degree of Doctor of Philosophy in Berlin University the other day, the first woman to be so honored. She obtained it in the studies of chemistry and mathematics, which she had pursued at Gottingen and finished at Berlin. The hall where the ceremony took place was crowded to suffocation, and the young woman received great applause from the general public and the students present.

WRECKED BY ELECTRICITY.

How an Antiquated Bridge Was Got Rid of Easily and in a Hurry.

When the old wooden bridge over the Wabash River at Clinton, Ind., fell with a crash last week a new use was demonstrated for electricity. A novel experiment had been tried and proved remarkably successful. It was wrecking a bridge by electric current.

The old bridge at Clinton was built in 1853, and was a frame structure supported on stone piers. It consisted of three spans, with a total length of 735 feet. Originally the bridge belonged to a stock company, and enjoyed the distinction of being the only toll bridge in the State of Indiana. But lately it had passed into the control of one man, and became rather unsafe for use.

When with the progress of time the old bridge became antiquated it was decided to replace it with one of more modern design and of durable construction. The county authorities purchased the approaches, piers and abutments and entered into contract for a new steel superstructure to be erected on the [illegible] piers and [illegible] of ample strength and in [illegible] tion.

The owner of the old bridge agreed to remove the frame structure within thirty days. He found, however, that this was no easy accomplishment. He traveled about, consulted bridge and house wreckers, wrote letters, and sent telegrams, but all to no purpose. No company or individual was found that would agree to take down the timbers leaving the masonry intact, in the time available. The thirty days passed, and the old bridge still stood.

The owner succeeded in getting an extension of a week, but he was at his wit's end. The structure could be blown up with dynamite, but the explosion would destroy the piers also. It could be set on fire, but that would crack or injure the masonry. Several other plans were suggested, but the only sure way seemed to be the erection of false work, and that method was out of the question, owing to the shortness of time alloted for the work.

At this juncture, H. N. Mills, an electrician living in Clinton, suggested the use of electricity. He agreed to wreck the wooden bridge structure without injuring the piers. Although the undertaking was a novel one, Mr. Mills was confident that his method must prove successful, and he was right. His offer was gladly accepted.

Each span of the bridge was composed of nine chords, each consisting of three timbers. Therefore if these twenty-seven sills were cut simultaneously the span would drop between the piers to the river beneath. This was what was actually done, the cutting being accomplished by burning through the wood by loops of iron resistance wire made red-hot by the passage of an electric current and weighted down by sash weights. The timbers were of yellow poplar and nine inches square. Each one was burned simultaneously in two places. Thus the mass of timbers dropped inside the piers without injuring them. It took one hous and forty minutes to wreck each span.

Examination after the fall of the bridge showed that all the sills were burned by the wire loops in exactly the same manner—five inches deep from the top and three inches deep on the sides. When this depth was reached the weight of the span fractured the remaining wood. The cut made by the hot wire was quite sharp and clean, and the wood was not charred more than an inch from the place of fracture.

The plan was successful in every particular, and Mr. Mills was the recipient of many congratulations. The current was first turned on about 5 o'clock in the morning on the day of the wrecking, and at 2 o'clock in the afternoon the last span crashed to the river bed and a great shout of admiration went up from the throats of about 2,000 spectators who witnessed the feat. This is the latest and most novel of the many uses of electricity.

Cecil Rhodes's Idea.

In connection with the foundation of Cecil Rhodes's colossal wealth, there is a story told by an old fellow miner, himself lately a Colonial Minister of Finance, which illustrates at least one trait in the character of the great South African financier and politician.

During the early days of the Kimberly diggings it was the custom when a miner found a particularly fine gem to invite those about him to the ceremony of "wetting the stone," i. e.—drinking champagne at the finder's expense, with the idea that it would bring good luck in the discovery of another treasure. In the adjoining claim to that first taken up by Mr. Rhodes, in the very centre of the crater holding the precious blue dirt, this invitation had upon a certain occasion gone forth, and the men were going their way . to the hotel when it was noticed that Rhodes stood aloof.

"Hullo! Come on Rhodes!" shouted the lucky finder of the gem. "Aren't you coming up to 'wet the stone' for good luck?' To which, however, Cecil Rhodes only shook his head.

"I say, come on; there's a good fellow," persisted his neighbor.

"What are you going to do?" asked Rhodes, looking up.

"Wet the stone with champagne, of course."

"Well," replied the futur magnate, decisively, "I did not come out here to drink champagne, but to make money," and then went on with his work.

That Mr. Rhodes has succeeded in that purpose, probably beyond all flights of his imagination, is now a matter of history.

DOES PAINT INJURE TREES?

Robert W. Furnas of Nebraska Writes of His Experience.

It has been taught that an application of oil paint to the bark on the trunk of a fruit tree will injure the trees and finally cause its death. Until recently we have never seen this questioned. Robert W. Furnas, of Nebraska, an enthusiastic fruit grower of reliance, writes to the Country Gentleman as follows:

Some twelve or fourteen years since rabbits gnawed apple trees in my nursery rows badly. To induce rapid and sound healing, I had painted with common lead and oil paint all the trees where injured. The result was to my perfect satisfaction. The wounds were not only painted over, but to prevent further rabbit depredations the bodies of trees were painted from the ground two feet up. Two years afterward my son called attention to the superiority of the trees painted over those standing side by side not painted. They were more vigorous and showed a better growth. Since then I have painted all my young orchard trees, for two purposes—to prevent rabbit injury, and to stimulate the tree. Rabbits will not touch a painted tree, and I am convinced that trees are stimulated in growth and health. Do not understand that I paint the tree body with a heavy coat of paint as I would woodwork—only a slight coating, enough barely to cover the bark.

For many years when pruning trees, fruit, lawn or street, I have painted heavily and thoroughly over the wounds of all limbs, large or small, with ordinary cheap lead and oil paint. I have found nothing to produce such rapid and satisfactory healing where cut. I can show where oak limbs four inches in diameter, thus treated, have healed over entirely in eight years.

I formerly used, to paint tree wounds, gum shellac dissolved in alcohol. That is too expensive, and does not serve the purpose desired. It cracks and falls off, leaving wounds bare. Do not fear to use oil paint on trees.

Twin Chicks in Each Egg.

The remarkable story is told of James E. Fennessy, a Cincinnati theatrical manager, who has a poultry farm at Culbertson, Ky., that he owns a hen that lays two eggs in one every time—one egg inside of the other. The outside egg is as large as a turkey or a goose egg, and the inner one is of the usual chicken egg size. Both have

hard shells and both are perfect as regards yolk and white. The hen has been laying these fresh eggs for six weeks, at the rate of three a week. Mr. Fennessy will place a number of them in an incubator and expects that twin chicks will be hatched out of each egg. The hen is a prize-winning fowl, is true to blood and points, and in every way seemingly as healthy as any other hen.

How Many Hens in a Flock.

There has always been much discussion in regard to the number of hens that may be kept in a flock and still have them do their best. Of course much depends upon the limits of the range given them and the size of the buildings. Sometime ago I started out to observe the degree of success attained by my neighbors who keep poultry and I almost invariably found that those matrons who sold the most poultry and eggs and in every way seemed to be the most successful were those who kept from 100 to 150 hens. A flock of this size would lay enough eggs and produce enough surplus stock to make its owner take a pride and have a lively interest in its welfare. Such a flock where well taken care of will bring in nearly or quite $100 per year and that is a sum for which most farm wives will do considerable work to obtain. Of course this is not expected to apply to those yards that are run for the production of fine stock, but as regards to the general farm flock where it is not yarded but allowed the free range of the farm.

In keeping a flock of this size one can afford to spend some time each day to feed and water, as it takes no more time to feed 100 than to care for 20. But in most cases where parties, elated by success with this number, attempted to enter a larger field and built extensive houses and enlarged their flocks, disaster seemed to come, disease quickly made appearance and laying qualities decreased.

Black-Knot.

Black-knot is a fungous disease affecting the plum, cherry and kindred tree fruits. The damson among plums, and the morello class among cherries are the most susceptible.

Beginning with the growing season the knots develop rapidly. They should be cut off as soon as seen and burned at once. The badly infected branches should be cut off below point of infection and burned, not left under the tree, nor piled in heaps and left in the orchard.

Should any remain after the leaves have fallen they should be cut off and burned, and badly affected branches also, not later than February 15, as the spores or seeds are then ripe.

OUR NEIGHBORS IN MEXICO

Have Queer Ways of Doing Various Kinds of Work.

It is strange that we know so little of our neighbors, the Mexicans. Years ago we were at war with these people. We are now occupying some of their territory. Their farms adjoin ours, and yet we know as little of them as we do of the people in India, and possibly less.

The Mexicans are a peculiar people and have queer ways of doing various kinds of work and attending to business.

Mexican Poultry Carrier.

Our first illustration represents the Mexican poultry carrier on his way about the streets of the city selling spring chickens.

Our second illustration gives an idea of the peculiar plow used in Mexico. Rude as this plow appears it is a hundred-fold better than the plow used in Palestine, or in the Philippine islands.

Mexican Plowing.

The improved plow is more in evidence in the United States than in any other portion of the world. Even in many parts of Europe rude plows are still in use.

Milk in Farrow Cows.

The milk of sows that have long passed the season of greatest production, which is soon after farrowing, is much richer in butter fats than that which the sows give soon after dropping their calves. If they have not been bred the milk also usually contains more of the albumenoids also. For this reason it is harder to digest, and as cows' milk is at best unsuited to the stomach of a young infant, that from new milch cows, where procurable, is always to be preferred. The milk of the cow is too rich in fats, causing the infant to throw it up, soon after taking a quantity. It may be improved by diluting it with warm water made quite sweet with pure sugar. Even farrow cows' milk thus reared may be used with safety if the infant is obliged to suck it through a tube, through which it can only get a small amount at a time.

The milk from farrow cows is excellent for making into ice cream. It is richer in cream fats than other milk, and is nearly as good as cream. Some people spay their cows when they do not want the trouble of breeding and raising calves. A spayed cow that has this operation performed when the flow of milk is greatest will maintain her milk flow two, three or even four years if thoroughly milked so as to get all that she produces. If milk is left in her udder the cow will soon dry off and become too fat for further milking. After being spayed she is no good for breeding, and when fat enough to kill she must be turned over to the butcher. A spayed young cow makes as good beef as a steer. There are few places in this country where it is an advantage to spay cows. All the best cows should be bred to bulls that are of good milk stock, while the poor cows are not worth keeping as milkers under any circumstances if others can be had.

Wormy Apples.

There is nothing new about wormy apples except the way to avoid having them. There are several species of grubs or worms which work in apples, but the one which does nearly all the damage is the core worm. The core worm is the offspring of the codlin moth, and this is the insect which a man wants to fight in his apple trees.

The best general remedy for the core worm or codlin moth, according to information furnished by the Vermont experiment station, is Paris green. Some apple growers use London purple, others use white arsenic, but they amount to the same thing. They all poison the core worms. Other insecticides like hellebore, kerosene or sulphur are not effective in this case.

In the hands of the average man Paris green is the best medicine for the codlin moth. The poison should be thoroughly mixed with water at the rate of a quarter of a pound to the barrel,—that is about one pound of Paris green to 160 to 200 gallons of water. About a pound of lime ought to be added to each barrel of water, which will prevent scalding of the foliage. It should be applied with a spray pump and fine nozzle.

In case bordeaux mixture is used on the tree the Paris green may be added directly to that solution at the rate already recommended.

In the average fashion periodical the pictures of women in the latest mode have little that is human about them and less that is divine. What man of sense could love a woman with a waist as small as her neck, and her shape as uncouth as her shadow?