HOW TO DO

THE BLACK ART

Containing a complete description of the mysteries of Magic and Sleight of Hand, together with many wonderful experiments.

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THE BLACK ART.

INTRODUCTION.

THE chief requisites for success in the performance of the black art is manual dexterity and self-confidence; nimble fingers and a cool temper.

Any one who exhibits feats of legerdemain, will do well to remember that one of the best methods of diverting the attention of the audience from the action of your fingers, is to keep talking; the more diverting your talk, the less attention will the audience give to your manipulation of the object which has to be moved or changed without their knowledge.

Never attempt to perform any trick in public till you have practiced it in private, and are perfect in its performance.

Don't repeat a trick if you are asked to do so, but tell your audience you will show them one of the same nature, though a little different. If you are asked to repeat, you may be sure some one half guesses how the trick is done, and wishes to make certain.

Don't tell your audience beforehand the particulars of the trick you are going to exhibit, as thereby you half betray yourself.

And, should the trick be detected, keep your temper.

The Jumping Feather.

Cut a piece of sheet-brass into the shape of a lozenge, about two inches and a half long and one inch broad. Bend it exactly in the middle, but leave the two points sufficiently wide apart to give a spring to the two sides when they are brought together. Roll a thin strip of paper once or twice round the points of this spring, after bringing them together, and make it fast with a piece of wafer; but, as this fastening would not hold long (the wafer being wet), secure it also with a piece of thread, which is to be removed, of course, when the spring is required. Have three feathers of various colors and sizes, and when about to perform the trick, hold the spring above described concealed in the hollow of the hand. Borrow a penny and throw it into a basin, which, of course, you must previously show to the spectators that they may see it is empty. Throw in at the same time the little spring, and then place the three feathers in the basin, and request the company to choose which of the feathers is to jump out. When they have made the choice, place the feather selected—under the pretence of arranging the feathers in a particular manner—upon the end of the spring. Now inform the audience that the feather is made to jump by no mechanical means, but by virtue of a wonderful chemical preparation. Have some colored water ready in a little bottle and pour over the spring. The wafer will be rapidly softened, and the spring, suddenly let loose, will jerk the feather into the air. Then take up the basin, empty the spring and the coin into the hand, and restore the money to the owner.

How to Break a Stone with a Blow of the Fist.

Select two stones, flints are best, each from three to six inches long, and about half as thick; lay one flat on the ground, and place one end of the other stone upon it, raising the reverse end to an angle of forty-five degrees, and just over the center of the stone (with which it must form a T), supporting it in that position by a piece of thin twig or stick, one, or one and a half inch long. If you now

sharply strike the raised stone about the middle, with the little finger side of the fist, the stick will give way, and the stone be broken into fragments. The stones, however, must be laid very carefully and so that they may not slip, otherwise the experiment will be sure to fail.

To Melt Money in a Walnut Shell without Injuring the Shell.

Bend any thin coin and put it into a half a walnut shell: then place the shell on a little plate to keep it steady. Then fill the shell with a mixture made of three parts very dry powdered nitre, one part of flowers of sulphur and a little fine sawdust. Set light to this, and you will find the metal melted at the bottom of the shell in the form of a button, which will become hard when the burning matter around it is consumed.

How to Pull out of Your Mouth Yards of Ribbon, etc., of whatever Color you Please.

Pulling ribbons out of your mouth is a laughable trick, and Conjurers make money by it. They will sell to you ribbons of any length, by putting into their mouth the end of one length, as they pull out another to the exact end of every yard, making it appear as if the several pieces were all one. They secretly tie knots which they rest against their teeth; then they cut off the same without being seen, because the movements of their fingers are hid by paper shavings held in great quantity between their teeth, whereby the beholders are doubly deceived, seeing as much ribbon as will fill a hat, and the same of whatever color you please to require, drawn by even yards out of the mouth, and the juggler talks as if his mouth was empty. There is a common street trick of drawing out a whole pyramid of tape from the lips, but the above is a far greater trick.

The Burning Five-Dollar Bill.

If you dip a five-dollar bill in pure brandy, and hold it in the flame of a candle until it takes fire, it will spread all over in a sheet of flame, and yet do no harm to the note whatever.

Fiery Writing in the Dark.

Place a small piece of solid phosphorus in a quill, and write with it some words upon paper. When the paper is carried into a dark room the writing will appear beautifully luminous.

Writing by the Rays of the Sun.

Dissolve a sufficient quantity of chalk in aquafortis, to make it of the consistency of milk, and add to that a strong solution of silver. Put this liquor in a glass decanter, well stopped; then cut out from a paper the letters you wish to appear, and paste the paper on the decanter, which you will place in the sun in such a manner that its rays may pass through the spaces cut out of the paper and fall on the surface of the liquor. That part of the glass through which the rays pass will turn black, and that under the paper will remain white. You must be careful not to remove the bottle during the time of operation. You may mark fruit while growing by pasting on it your initials in paper, and allowing it to remain on the tree exposed to the sun for a few days. The part covered by the paper will be lighter colored than the other part.

A Loud Report, like that of a Gun, coming from a Tobacco Pipe.

Mix a powder composed of one ounce of saltpetre, one ounce of cream of tartar, and half an ounce of sulphur, pulverized separately, then mixed. Put a single grain of this powder into a tobacco pipe, and when it takes fire it will produce an astonishingly loud report, though without breaking the pipe.

To Write in the Dark.

Two planes of ebony, of equal length and breadth, similar to a parallel ruler, and joined at each end by racks, the side of which is graduated to the width of the line required, will serve as a sure guide; and a blind person, or a person in the dark may, by the use of this instrument, write with the greatest accuracy. If ivory tablets, or a slate, is used, a fine wire drawn with a steel point, may be readily felt by the point of the pencil.

Philosophy Puzzled.

This feat is really an excellent one, and has astonished crowds of spectators. It was one of the favorites of a late professor, by whom it was promulgated. Before you perform it in public you must practice it until you are perfect in private, for it would be a pity to spoil its effect by making a blunder in it. Begin by stating that you are about performing what you have no doubt will be regarded as a very extraordinary manœuvre, and you will leave the company to decide upon what principal of natural philosophy it is accomplished. The mode of performance is as follows: Lay a piece of wood across the palm of your left hand, which keep wide open, with the thumb and all the fingers far apart, lest you be suspected of supporting the wood with them. Next take your left wrist in your right hand, and grasp it tightly, for the purpose as you state, of giving the hand more steadiness. Now suddenly turn the back of your left hand uppermost, and as your wrist moves in your right hand, stretch out the forefinger of your right hand, and as soon as the wood comes undermost, support it with such forefinger. You may now shake the hand, and after a moment or two, allow the wood to drop. It is two to one but the spectators will suppose it to be produced by the action of the air, and try to do it themselves; but, of course, they must, unless you have performed the feat so awkwardly as to be discovered, fail in its performance. If you have no objection to reveal the secret, you can do it again, and while they are gravely philosophizing upon it, suddenly lift up your hand and expose the trick.

To Make a Ring Suspend by a Burnt Thread.

Soak a piece of thread in strong salt and water, tie it to a wedding ring, and you may burn it in a flame, but it will sustain the ring.

The Handkerchief Cut, Torn and Mended.

Two of the company are requested to come forward, and a handkerchief is given to them, which they are to hold by the four corners; afterwards several other handkerchiefs are borrowed from the company, and as they are gathered they are put into the first one to make a bundle; when a dozen have been filled up, the two persons who hold the bundle cause a third person to take one of them out by chance, and this third person is requested to examine the marks, etc., and to cut off a corner with a pair of scissors; other persons may also cut off pieces if they choose, after which the handkerchief is entirely torn to pieces. All the shreds are to be collected, and after being sprinkled with some drug, are folded up, and tied tight with a ribbon to press them into a small compass; they are put under a glass, and unfolded; the company recognize the marks, and the astonished spectators cannot perceive any rent in the handkerchief.

Explanation.—One of the company is in confederacy, who, having had two handkerchiefs exactly alike, gives one to the confederate who is hidden behind the scene and throws the other on the stage to be used in the trick. Care is taken to put this one on the top of the heap, although they are seemingly mixed at hazard. The person to whom you address yourself to take one by chance takes naturally the uppermost, and, if you perceive that another is taken, you request them to mix them well, under pretence of completing the trick, and then, under pretence of settling them, you regain the confederate handkerchief, and hand the bundle to some other of the company, whose countenance indicates less suspicion, who puts his hand to the bundle of handkerchiefs, and good-humoredly takes out the first. When the handkerchief has been torn and well folded, it is put under a glass on a table, near a partition.

On the part of the table where it is placed there is a small trap, which opens to let it fall into a drawer. The confederate, hid behind the scene, passes his hand into the table to substitute the second in the place of the first handkerchief; he then shuts the trap, which so neatly fits the space it opens into as to appear one uninterrupted surface, and deceives the eye of the most acute and incredulous spectator.

The Burnt Handkerchief.

Borrow a pocket handkerchief from one of the company, turn up your coat sleeves, show that you have nothing concealed about your hands or up your sleeves, burn a piece out of the center of the handkerchief, blow it out and roll it up, and touch it with your wand, exclaiming at the same time: "Handkerchief, as you were!" shake it out, and you will find it all right again.

Explanation.—Before commencing this trick provide yourself with a small piece of calico, or linen, a piece about three inches square, and place it, not under your coat sleeves, but under your shirt sleeve on the left hand, and then you are ready to perform the trick. Borrow a handkerchief, show that you have nothing concealed about your hands or sleeves, taking care not to turn round the hand to the company which contains the piece in the sleeve; at the same time take the handkerchief and lay it across your left hand, put the right hand underneath, and take the piece from your shirt sleeve and bring it forward to the top; then ask the owner if you may burn the handkerchief; very likely he or she may say "No," then you say: "Thank you," and begin to burn it; tell him that you will burn it down to as far as your fingers, because you know if you burn it further what the consequences will be; then when you have burnt nearly all the piece, blow it out, and, as you roll up the handkerchief, place the piece remaining unburnt between the thumb and forefinger of the right hand; keep on rolling up the handkerchief, and when you walk up to your table for your magic wand you drop the little piece behind it, and at the same time taking up your

wand, exclaim- "Handkerchief, as you were," and on shaking it out it will be found to be all right again.

The Water Trick.

Procure two pieces of glass about six inches square, join any two of their sides, and separate the opposite sides with a piece of wax, so that their surfaces may form an angle of about two or three degrees; immerse this apparatus in water, and the water will rise between the plates and form a beautiful geometrical figure.

The Tumbling Egg.

Fill a quill with quicksilver; seal it at both ends with good hard wax. Then boil an egg. Take a small piece of shell off and thrust in the quill with the quicksilver; lay it on the ground and it will jump about till all the heat is gone. If you put quicksilver into a bladder and warm it after you have blown it out and secured it, it will skip about in the same manner.

To Make Blood Flow From a Knife.

Get a small piece of sponge and dip it into some red liquid having the appearance of blood. Place this behind your ear. Turn up your sleeve and exhibit your hands to show there is nothing in them. Then take a common table-knife and hand it round for examination. On taking it back grasp it fully in your hand, that you may have an opportunity of taking hold of the sponge unperceived. Say that, whenever you perform this trick, which is borrowed from the black art, you are afraid some diabolical agency may wither your arm, and you should request that one of the spectators will make a cross on your elbow. When the person who complies with your request comes forward, bend your arm back, raising it a little and bringing forward the elbow, while the hand is naturally brought near the ear, and the sponge may be taken up un-

perceived. When the cross has been duly made, you should stretch out your arm at full length, and squeezing the handle of the knife against the sponge, blood will be seen to drop from its point. You can, of course, hide the sponge afterwards, as you have to wipe your hand after performing this trick, and can slip it unperceived into your pocket handkerchief.

The Card Nailed to the Wall by a Pistol Shot.

A card is desired to be drawn, and the person who chose it requested to tear off a corner and keep it, that he may know the card; the card so torn is then burnt to cinders, and a pistol is charged with gunpowder with which the ashes of the card are mixed. Instead of a ball a nail, which is marked by some of the company, is placed in the barrel; the pack of cards is then thrown up in the air, the pistol is fired, and the burnt card appears nailed against the wall. The bit of the corner which was torn off is then compared with it and is found exactly to fit, and the nail which fastens it to the wall is recognized by the persons who marked it.

Explanation.—When the performer sees that a corner has been torn from the chosen card he retires and makes a similar tear on a like card; returning to the theatre he asks for the chosen card and passes it to the bottom of the pack and substitutes adroitly in the place the card which he has prepared, which he burns instead of the first. When the pistol is loaded he takes it in his hands, under the pretence of showing how to direct it; he avails himself of this opportunity to open a hole in the barrel near the touch-hole, through which the nail falls by its own weight into his hand. Having shut this passage carefully he requests some of the company to put more wadding in the pistol; whilst that is doing, he carries the nail and card to his confederate, who quickly nails the card to a square piece of wood, which stops hermetically a space left open in the partition and in the tapestry, but which is not perceived, as it is covered by a piece of tapestry similar to the rest of the room, and by which means when the nailed

card is put in it is not perceived. The piece of tapestry which covers it is nicely fastened on the one end with two pins, and to the other a thread is fastened, one end of which the confederate holds in his hand. As soon as the report of the pistol is heard the confederate draws his thread, by which means the piece of tapestry falls behind a glass, and the card appears—the same that was marked, and with the nail that was put in the pistol. The pistol is, of course, made specially for the performance of this trick.

N. B.—If any one suspects that the nail has been stolen out of the pistol, you persist in the contrary, and beg the company at the next exhibition to be further convinced; you then are to show a pistol; which you take to pieces to show that all is fair. Without preparation you charge it with a nail which is marked by a confederate, or you show it to many persons to avoid its being marked—in this case the card is nailed with another nail; but to persuade the company that it is the same, you boldly assert that the nail was marked by several persons, and you request the spectators to view it and be convinced.

Arithmetical Conjuring Tricks.

Combinations of numbers sometimes produce results that are, to say the least, very astonishing. To tell a person's age after that person has performed a very intricate calculation, of which you see nothing but the result, smacks rather of the diabolical, and in olden times might have led the magician to the stake. The following is an ingenious trick:

To tell who has the Ring, and on which Finger.

You procure an ordinary finger ring and give it to the company, telling them to settle among themselves who is to wear it, and you will afterwards discover who has it. When they have arranged that matter you call upon them to form a line, and you number them, they keeping their hands concealed. Also you are to instruct them that in the arithmetical calculations the right hands count as 1, the left hands as 2; that the fingers are numbered 1 to 5—

the thumb being No. 1; and that the joints of the fingers are numbered from 1 to 3—the nail joint being No. 1.

Of course they all know who has the ring, on which finger and which joint of the finger; you have to find out, and you do it thus:

You bid the best arithmetician of them fix in his own mind the number of the person who has the ring; let him mentally multiply that number by 2, then add 5 to the product, then multiply that sum by 5, then add 10 to the product, then add the number of the hand on which the ring is, i. e., 1 if it is on a right hand, 2 if on a left; then multiply by 10, then add the number of the finger, 1 if on thumb, 2 if on forefinger, etc.; then multiply by 10 again, then add the number of the joint on which the ring rests, then to that sum add any number less than 50, you naming the number; then tell you the grand total. From that grand total you subtract the sum of 3500, and whatever was the last number added, the result will be four figures by which you tell the person the hand the finger and the joint upon which the ring will be found. Here is an example:

Suppose the ring is given to eight people, who decide amongst themselves that No. 4 shall place it on the first joint of the forefinger of his right hand.

Multiply his number by 2 ...	=	8
Add 5	=	13
Multiply by 5	=	65
Add 10	=	75
Add 1, the number of right hand	=	76
Multiply by 10	=	760
Add 2, the number of the finger	=	762
Multiply by 10	=	7620
Add 1, for the number of the joint	=	7621
Add any number under 50, say 49	=	7670

The result, which he tells you, is 7670, from which you subtract 3500, plus 49, the last number added; you find remaining 4121, which shows that No. 4 person has the ring on No. 1 or right hand, No. 2 or forefinger, No. 1 joint.

A Person having Gold in one hand and Silver in the other, you tell in which hand is the Gold and in which the Silver.

Tell the person that the hand holding the gold counts 4, the silver hand 3; or you may choose other numbers, but the gold must be even, and the silver odd. Bid him multiply that which is in the right hand (3 or 4 as it may be gold or silver) by 3, and multiply the left hand number by 2. Then bid him add the two products together, and ask him if the sum total is an odd or an even number. If it is an even number, the gold will be in his right hand; but if it is an odd number, the gold will be in his left. If gold and silver chance to be scarce, substitute pence and half pence.

To find out a Person's Birthday by Arithmetic.

You tell a person that you will find his or her birthday by calculation, and begin by bidding that person write down, in figures, without letting you see it, the day of the month on which born; then in a line with it the number the month takes in the Calender—as 1 for January, 2 for February, 3 for March, etc. Thus, a person born on the 1st of January would put down 11, while one born on the last day of the year would write 3112. Then bid the person multiply this number by 2; then to the product add 5; then multiply by 50; then to the product add the correct age last birthday; from that subtract 365, and then to that remainder add 115. Ask the person to tell you the result—the last row of figures—from that you can tell the day and month of birth, and the age last birthday.

For instance, suppose a person born on the 1st of January, 1869, that person would put down 1 for the day, 1 for the month, =11; or if born 28 of February, would put down 28 for the day, 2 for the month, =282. In the latter case,

282 multiplied by 2 ...	=	564
Add 5	=	569
Multiply by 50	=	28450
Add age last birthday (17)	=	28467
Subtract 365	=	28102
Add 115	=	28217

He then tells you the result, 28217. Well, a glance will tell you whether the person is 7 or 17 years old—you find he is 17; he was born in the 2nd month of the year, and on the 28th day of that month.

To Make a Card Jump out of a Pack and Run along the Table.

This is an extraordinary trick if well managed. Take a pack of cards, and let any person draw a card he may fancy best, and afterwards put it into the pack in such a manner as to know where to place your hand on it again; then take a piece of wax, and place it under the thumb-nail of your right hand; then fasten a hair to your thumb, and the other end of the hair to the card; now spread the pack of cards open on the table and say: "If you are a friend you will jump out of the pack." The right card will then jump out on the table as you move your hand towards you.

How to Change Four Aces into Four Knaves.

Make a pack of eight cards, four knaves and the same number of aces; place each knave and ace evenly together, and place the eight cards at the bottom of a complete pack of cards. Then shuffle the pack in such a manner that one ace may lie uppermost, or so that you may know where it lies always; let your pack, with three or four cards more, lie close together, immediately upon and with that ace; then making some speech to amuse the audience, contrive to work your fingers in shuffling quickly so as to confuse them, while you appear to draw the four aces (one after the other), and lay them on the table, face downwards, while, in reality, although you showed them the aces singly, by the adroit movements of your hands you replaced them in the pack, and substituted the four knaves, which, crying "Presto change!" you turn up and show them, as if the four aces were transformed into four knaves, much to their amusement and surprise.

Cards Mysteriously Changed.

Take two cards, one diamonds, the other spades. Split them in such a manner as to reduce the painted side to half its usual thickness; then, with a razor, peel off scales of paper till it becomes of the consistency of tissue paper. Now cut out a spade pip and a diamond pip. Spread a little tallow on the back of both pips. Stick the diamond pip upon the queen of spades, so as to conceal the spade pip, and the spade pip upon the queen of diamonds, covering the diamond pip. The appearance of the cards so altered will by candle light be completely deceptive. Call on the spectators to look at the cards from a distance, then place them in a hat to be held aloft, and put the other in a second hat, both about four paces distant. Turn the sleeves of your coat up, and hold out your hands to prove to the company that there is nothing concealed in them. Then walk up to one hat and remove the false pip from the card within it, and passing to the second hat, with your hands stretched out to show that they are still empty go through the same process as with the first. Now stand in the middle of the room and cry out: "Once—twice—thrice! Pass." The two hats may then be looked into, and the cards taken out and shown, to the astonishment of the spectators at the rapid and mysterious change.

Tricks with Money.

Place a quarter on the tips of the middle and third finger, so that it shall rest there of its own weight. By now turning the hand with the knuckles uppermost, and quickly closing the fingers into the palm, the coin may be held securely by the contraction of the thumb, and the hand still appear to contain nothing. This is called *palming*, and, with a little practice, nearly every feat of simple legerdemain may be performed by its means. Care, of course, must be taken not to expose the coin by any reversed movement of the hand.

How to Steal Three Ducks.

A gentleman once sent his servant with nine ducks in a bag upon which was the following direction:

"To Mr. Matthew Muddle, with IX Ducks."

The servant had less of honesty than ingenuity about him, and stole three of the ducks. He neither erased a letter nor a word, nor substituted a new direction. Now how did he manage it?

Solution: He merely placed the letter S before the numerals, thus:

"To Mr. Matthew Muddle, with SIX Ducks."

How to Show the Hen and Egg Bag, and from an Empty Bag to bring a Hundred Eggs and afterwards a Live Hen.

Take two or three yards of calico, or printed linen, and make a double bag, at the mouth of which, on the side nearest you, you must make four or five little purses, in each of which you must place two or three eggs. When you have filled that side next to you, have a hole made at one end of your bag, so that no more than two or three eggs can come out at once. You must also have another bag, which is so exactly like the first that it shall be impossible to distinguish one from the other, in which you will put a hen, and hang it on a hook on the side where you stand. The trick is performed thus: Put both your hands into the egg bag, then turn it inside out, saying: "Ladies and gentlemen, you see that there is nothing inside my bag," and while turning it again, contrive to slip some of the eggs out of the purses; then turn your bag again and show the company that it is empty; in turning it again you command more eggs to come out, and when they are all out but one, you take that one and show it to the company; then drop the egg bag and take up the hen bag and shake out your hen, pigeon, or any other fowl.

The Dancing Egg.

Prepare a piece of black silk thread about three feet in length, with an empty egg fastened by a knot at one end of it. Place the egg-shell in one of your pockets. Then take a full egg, and having allowed the spectators to examine it and see it is not prepared for the purpose, place it in a hat. Now take an empty handkerchief and lay it on the hat, contriving to place the empty egg with the thread attached, unobserved, beneath the pocket handkerchief, saying, "I am obliged to put this handkerchief with the hat, for fear when the egg begins to jump it should be broken." Having placed the full egg beneath the handkerchief step back three or four paces, and take an empty hat in one hand, while with a number of jocular sayings, the hat with the egg is moved a little distance away from the body. The egg-shell will in that way be brought out upon the brim, and if the other hat is placed at a short distance, the egg, with a slight jerk, may be made to jump into it, and that can be repeated as often as is wished.

To Make an Egg stand on End on a Looking-glass.

To accomplish this trick let the performer take an egg in his hand, and while he keeps talking and staring in the face of his audience, give it two or three hearty shakes; this will break the yolk of the egg, which will sink to one end, and consequently make it more heavy, by which, when it is settled, you make it, with a steady hand, stand upon the glass; this would be impossible while it continued in its proper state.

The Beer Trick.

Take a common wine-glass, fill it with porter. On the top of the porter place a small piece of paper cut neatly round in the shape of a five-cent piece. Now, with a steady hand, pour gently with a teaspoon enough water to fill up the glass, and the water will float on the top. Remove the paper, and you may then engage to drink the

porter beneath without taking up a drop of water. You must suck the beer with a straw. The water will be found perfectly clear at the bottom.

To pass a Tumbler through a Table.

Place yourself on the opposite side of the table to the spectators, having spread, unperceived, a handkerchief across your knees. Take a tumbler, which, having covered with paper, you will mold as neatly as possible to the shape of the glass. While giving utterance to some cabalistic words, drop the glass into your handkerchief unperceived, and as the paper retains its shape, the lookers-on will believe the tumbler to be still beneath it. Passing the glass with the left hand under the table, you now crush the paper down with your right, when the glass will appear to have been sent through the table.

How to eat Fire and blow it up in your Mouth with a Pair of Bellows.

Anoint your tongue with *liquid storax*, and you may put a pair of tongs red-hot into your mouth without injuring yourself, and lick them till they are cold. By the assistance of this ointment, having your mouth prepared in this manner, you may take wood, coals, etc., out of the fire and eat them without injury. Dip them into brimstone powder, and the fire will seem more strange; but the sulphur puts out the coal, and shutting your mouth close puts out the sulphur; then you may chump the coals and swallow them, which may be done without hurting the body; and if you put a piece of lighted charcoal into your mouth, you may allow a pair of bellows to be blowing in your mouth constantly, showing, to the surprise of every beholder, the appearance of a burning furnace. Be sure, after the performance, to well clean your mouth, or it will cause salivation.

To make a Live Fish jump off a Plate.

Place a live flounder on a sheet of zinc in a plate, and touch his back with a piece of copper or silver whilst the latter is touching the zinc. The electricity produced will generally cause the fish to take a flying leap.

The Learned Swan, or Goose.

To perform this trick you require a large earthenware bowl, painted on the inside of the rim with the letters of the alphabet, or with numbers. A small artificial swan is placed upon the water in the center of this bowl, and any spectator is invited to say which letter or which number the bird shall swim to. Upon the number or letter being mentioned, the toy swan quits its station in the middle of the bowl and swims to that part of the rim of the bowl upon which the figure or letter is drawn; or it will go round the bowl from letter to letter till it has spelt out the name of any person present.

This will no doubt astonish many people, but the trick is easily explained. The swan being cut out of a piece of cork has in its body a pin or nail of iron, and the magician has in his hand—perhaps concealed in a piece of bread as though he would feed the bird—a powerful magnet. The hand containing the magnet is brought over the letter or figure required, and the bird naturally is attracted to it.

A Capital Trick with a Watch.

This trick is excessively simple, but none the less astonishing.

To perform it you must have a confederate among the audience, who has a double watch pocket, containing two watches exactly alike in every particular. If they have a crest or a monogram engraved on the back of each, so much the better, for the audience will be the more thoroughly deceived. You must also have a dummy watch similar in appearance.

In preparing this trick pass round to several of the aud-

ience a box that has a false top inside so contrived that when the false cover is up, and the box *unlocked* it cannot come down, and when *locked* readily falls to the bottom. A spring at the back must cause it to rise when wanted; in this false top the dummy watch is concealed. When the box has been examined, which of course appears empty, place it on a stool at one side of the platform, *and lock it.*

Now ask one of the company to lend you a watch; there is sure to be a little hesitation, and your confederate must be the first to offer. After having looked at the watch you pass it to several of the company, begging them to notice it particularly. You now turn to your platform taking care not to go near your confederate or the box, holding the watch by the ring in such a manner that all can see it.

You may now indulge in a bit of banter with the owner of the watch, opening it and examining it apparently very attentively, saying: "Ah, jeweled in four holes; no doubt this watch cost at least two hundred and fifty dollars. Ah, I see," *(pretending to read an inscription inside the case).* "This watch was presented to you by a friend for a particular service rendered. Well, I should be very sorry to do any injury to this watch, but as I have been unfortunate once or twice in performing this trick, and had to pay rather heavily for it, perhaps I had better return it and try one of less value. *(Make a step or two towards your confederate, and then appear to have decided.)* No, I'll chance it. I suppose if I fail this time a check for five hundred dollars will settle the matter?" *(Your confederate should now show that he repents lending you the watch and beg you to return it, exhibiting as much nervous fear of your injuring his watch as possible; and, when he finds you obdurate, threaten to call a policeman to compel you to give it up.)* If this by-play is well carried out, the audience will by this time be wrought up to a pitch of great curiosity; and you must take the opportunity while their eyes are mostly turned to your confederate to pass the watch up your sleeve by attaching to it a hook fastened to a piece of strong elastic, one end of which is firmly sewn under the arm, and the hook end placed near your wrist.

You now say, "It is too late, sir; your watch has gone. It was in my hand safe a moment ago, but you have made

so much noise that you have frightened it away; can you tell me where it is, for I have not moved from this spot? Well, if you cannot, perhaps I can. I will see whether it is in this box." (*Unlock the box and take out the dummy.*) "Here is your watch, sir; it has not gone far away."

"Thank you," says your confederate, eagerly rising and holding out his hand for the watch.

"Don't be impatient, sir; I have not done with it yet. Jeremiah (*to your attendant*), bring me the anvil and a hammer."

This having been brought, you pound away at the watch, taking care that the shivers of the broken glass are heard, and when the dummy is in an indistinguishable mass, you put the remnants into the box again, lock it, press the spring that causes the false top to rise, and ask your confederate if he thinks it possible for that watch to be restored to its original form.

You now take the box among the audience, and *unlocked*, ask him to see if his watch is there. If course he finds the box empty, and appears greatly distressed; you yourself pretend to be puzzled, and express a fear that you have made a mistake, and return to your platform to search for it. A sudden idea strikes you, and you ask your confederate: "As it flew out of my hands so mysteriously into that box, are you sure that it has not flown quite as mysteriously out of that box into your watch pocket?"

Your confederate now produces the duplicate watch, and with many compliments on your cleverness, shows it to several about him to convince them that it is the same watch that they before examined.

The Decapitation Trick.

The stage represents a catafalque hung with black velvet ornamented with silver. In the center there is a large table with a cover that descends within a few inches of the floor.

The prestidigitator presents the subject whom he is to

decapitate, lays him upon the table, and taking a saber, cuts off his head and deposits it upon a plate lying near

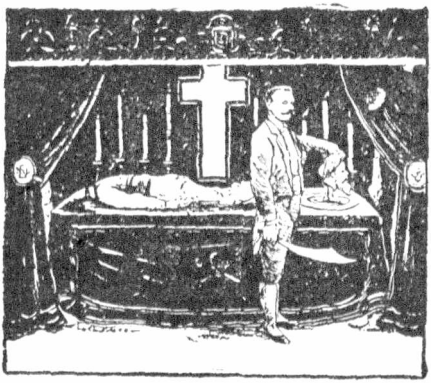


Fig. 1.—THE CATAFALQUE.

the feet of the subject at the end of the table. Then the spectators are invited to pass in procession upon the stage and to touch the head in order to assure themselves that it is still living.

Explanation.—The table upon which the subject lies is provided with a double bottom that rests upon pegs fixed

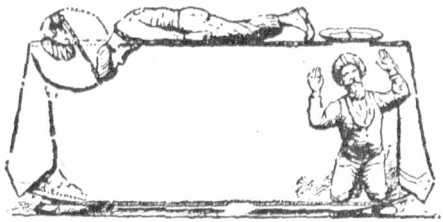


Fig. 2.—THE DOUBLE BOTTOMED TABLE.

in the four legs. In this double bottom is concealed a confederate, the make-up of whose head is such as to re-

semble that of the person to be decapitated. A resemblance is obtained by providing the two persons with similar false beards and eyebrows.

The table is provided with a trap into which the subject lowers his head. The door of the trap turns and a false head places itself against the shoulders. The operator conceals this substitution by placing himself between the spectators and the subject. Then he takes a saber, passes it between the shoulders and the false head (a part of which representing the divided neck remains near the shoulders), and seizes the head by the hair in order to carry it to the plate. In carrying it he presses a button that has the effect of opening a tube whence a red liquid resembling blood escapes.

In depositing the head upon the plate the prestidigitator hides it from view.

The confederate in the table opens a trap formed in the bottom of the plate, removes the false head and causes his own to appear in place of it.

Fig. 3.—AFTER THE DECAPITATION.

The spectators defile along the railing and may touch the head in order to assure themselves that it is living, but the arrangement of the railing does not permit them to touch the body.

New Shick Shake Puzzle.

This is simply constructed as follows:
Take a circular wooden or card box about 3 in. by 2

Fig. 1.

(fig. 1). Inside this box fix another of cardboard, 3-4 of an inch square, 2 3-4 in. long (fig. 2).

Half way up fig. 2, and exactly on one of the angles,

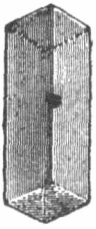


Fig. 2.

bore a hole about 3-16 of an inch in diameter. The bore should be perfectly smooth and clear on the inside. Take a piece of wine cork about an inch long, and with an ordinary cork cutter cut a hole about 3-16 diameter through the center lengthways.

Cut a notch in one end of the cork so that it may fit over the angle on the box; then fix it firmly over the hole in

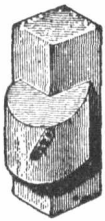


Fig. 3.

the angle of the box, so that the holes in the cork communicate (see dotted line, fig. 4.) Before the cork is fixed, a piece of cloth, or other soft material, should be glued over the outer end of the cork, so as to cover the hole.

Place three ordinary shot in fig. 3, and fix the card ends permanently on the box. Fig. 4 shows fig. 3 fixed in place. With a bradawl bore four small holes at equal distances apart round the middle of fig. 1. No. 1 of these holes should be exactly in a line with the outer end of the cork, the other three holes are of no consequence.

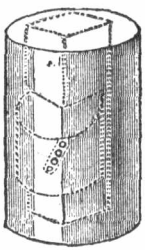


Fig. 4.

Paste a circular label, with the words "Shick Shake" thereon, on the top and bottom of the puzzle, and see that

in each case the letter I in Shick comes exactly over the

Fig. 5.

No. 1 hole referred to. Of course it should be impossible to open the puzzle.

How to Use the Puzzle.

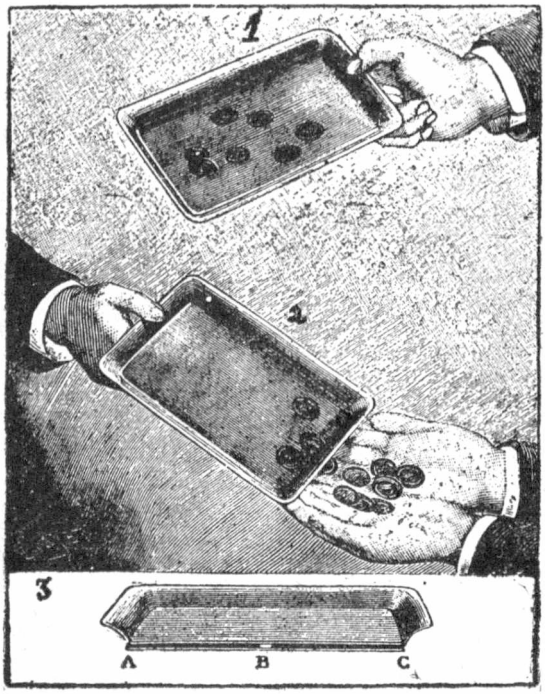
Present one of the company with the puzzle, and ask him to shake it well without rattling it, if he can. This he will find impossible; then offer to do it yourself. As you take the puzzle, glance at the word "Shick" and see in which direction the letter I is pointing, and then without looking you will easily be able to feel the No. 1 hole opposite. Hold the puzzle behind your back for a moment, so that it cannot be seen.

Keep the No. 1 hole downwards and shake quietly horizontally from end to end. This will cause the shots to enter the hole in the cork, where they remain silent. Produce the box and shake it before the company, taking care, however, to keep the No. 1 hole slightly downwards. When passing it to anyone, tilt the box slightly so that No. 1 hole comes upwards, and the rattling will at once recommence. No. 1 is only a *term*, the hole should not be numbered.

Tricks in Prestidigitation.

Multiplication of Coins.—In prestidigitation, very simple experiments, that seem childish as soon as the secret of them is known, often produce quite an effect during the performance and cause the spectators more surprise than do many skillful and complicated tricks. Such is the case with the one we are about to describe.

Upon a small rectangular tray of japanned sheet iron, similar to those in common use, are placed seven coins (Fig. 1). A spectator is asked to receive these in his hand and to put the coins back upon the tray, one by one, and to count them with a loud voice as he does so. It is then found that the number has doubled, there being fourteen instead of seven. The same operation repeated gives as a result twenty-one coins.



As may be seen in the section in Fig. 3, the tray has a double bottom, forming an interspace a little wider than the thickness of one of the coins, and which is divided

broadthwise into two equal compartments by a partition, B. These two compartments are closed all around, save at the ends of the tray, where there are two apertures, A and C, that in length are doubte the diameter of the coins. In this interspace are concealed fourteen coins, seven on each side. When the contents of the tray are emptied into the hand of a spectator the coins concealed in one of the compartments drop at the same time, (Fig. 2). The operator then takes the tray in his other hand and thus naturally seizes it at the end at which the now empty compartment exists, and this allows the seven coins that are contained in the other compartment to join the first ones, when the latter are rapidly emptied into the hands of the spectator for the second time.

A square tray, with a double bottom divided into four compartments by divisions running diagonally from one corner to another, would permit of increasing the number of coins four times.

Let us say, however, that skillful prestidigitators dispense with the double bottom. They hold the coins sometimes under the tray with their fingers extended, and sometimes on the tray, under their thumbs, and renew their supply several times from secret pockets skillfully arranged in various parts of their coat, where the spectators are far from suspecting the existence of them.

The Wine and the Water.—After having done considerable talking, as required by his profession, a prestidigitator is excusable for asking permission of his spectators to refresh himself in their presence, especially if he invites one of them to come to keep him company.

An assistant then brings in upon a tray two claret glasses and two perfectly transparent decanters, one of which contains red wine and the other water. The prestidigitator asks his guest to select one of the two decanters and leave the other for himself. No hesitation is possible. The guest hastens to seize the wine and each immediately fills his glass. How astonishing! Upon its contact with the glass the wine changes into water and the water becomes wine. Judge of the hilarity of the spectators and the amazement of the victim! The pretended wine was nothing but the following composition: 1 gramme permangan-

ate of potash and 2 grammes sulphuric acid dissolved in 1 quart of water. This liquid is instantaneously decolorized on entering the glass, at the bottom of which has been placed a few drops of water saturated with hyposulphite of soda. As for the water in the second decanter, that had had considerable alcohol added to it, and at the bottom of the glass that was to receive it had been placed a small pinch of aniline red, which, as well known, possesses strong tinctorial properties. The glasses must be carried away immediately, since in a few instants the wine changed into water loses its limpidity and assumes a milky appearance.

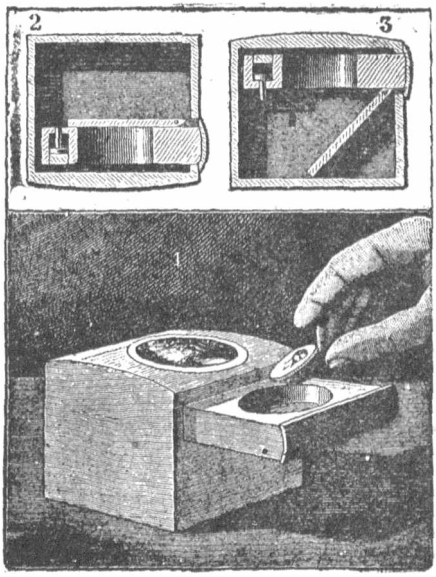
A Scotch Money Box.

The accompanying figure represents a novel money box which a contributor to *La Nature* came across in Edinburgh. The box (1), which is of wood, is provided at its upper part with a drawer. In the normal position of the box, the drawer can be opened, but not withdrawn. If a coin be placed in the drawer and the latter be closed and then reopened, the coin will have disappeared, although the drawer apparently contains no aperture.

The ingenious mechanism of the box is arranged as follows: The body of the drawer consists of a thick piece of wood containing a circular cavity. The bottom is hinged, and when the drawer is pulled out, applies itself against the body of the latter, and drops again when it is closed. In fact, it abuts against the lower edge of the cavity, and rises gently without the least resistance being felt. The travel of the drawer is limited by a nail movable in a cavity closed by a plug. If it be desired to empty the box, it suffices to turn it upside down, when the nail will re-enter and the drawer can be taken out.

No. 1 shows the box open. The only sign of the movable bottom is the extremity of its axis, marked in the figure by a small dot at the lower part of the drawer, the sides of which guide it perfectly. In No. 2 the box is inverted, and

it will be seen that there is no projection to prevent the



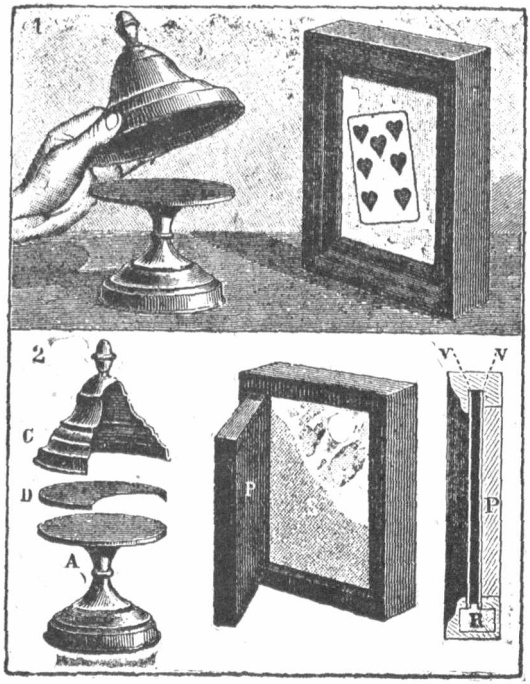
drawer from being withdrawn. No. 3 shows the manner in which the drawer is emptied.

The Sand Frame Trick.

The sand frame is a very ingeniously constructed little apparatus which is employed in different tricks of prestidigitation for causing the disappearance of a card, a photograph, a sealed letter, an answer written upon a sheet of paper, etc.

In appearance it is a simple plush-covered frame, the back of which opens with a hinge behind a glass, which, at first sight, presents nothing peculiar.

In reality, there are two glasses separated from each other by an interval of three millimeters. The lower side



THE SAND FRAME.

of the frame is hollow and forms a reservoir filled with very fine blue sand. In the interior the door is covered with blue paper of the same shade as the sand. The card, portrait, or letter that is subsequently to appear is placed in the frame in advance, but, in order to render it invisible, the latter is held vertically, the reservoir at the top. The sand then falls and fills the space that separates the

two glasses, and the blue surface thus formed behind the first glass seems to be the back of the frame. In order to cause the appearance of the concealed object, the frame is placed vertically with the reservoir at the bottom, and covered with a silk handkerchief. In a few seconds the sand will have disappeared. The door that closes the back may be opened by a spectator and the frame shown close by, provided that it be held vertically in order to prevent the sand from appearing between the two glasses.

Fig. 2 shows the frame as seen from behind. The door, P, is seen open, and at S is seen the sand falling between the two glasses. In the section at the side, V and V are the two glasses, P, the door, and R, the reservoir.

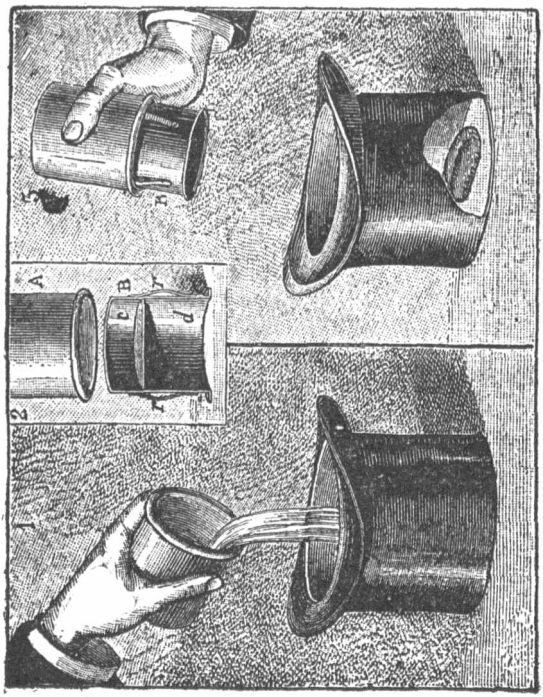
We have supposed here an experiment made by means of the small foot, A, upon which the spectator has placed the seven of hearts. The card passes into the frame. To tell the truth, it is removed by the cover, C, along with the thin disk, D, that covered the foot, A, and upon which it was placed. It will be said that we have here to do with a double bottom. Allow the cover, C, before covering the card, and the foot, A, after the experiment is finished, to be examined. Is the cover asked for again? One will hasten to show it without saying that the back edge of the table has just been struck with it in order to cause the disc, D, and the card to fall on to a shelf.

A Brioche Baked in a Hat.

This old trick always amuses the spectators. Some eggs are broken into a porcelain vessel, some flour is added thereto, and there is even incorporated with the paste the egg shells and a few drops of wax or stearine from a near-by candle. The hole having been put into a hat (Fig. 1), the latter is passed three times over a flame, and an excellent brioche, baked to a turn, is taken out of this new set of cooking utensils. As for the owner of the hat, who has passed through a state of great apprehension, he finds with evident satisfaction (at least in most cases) that his head gear has preserved no traces of the mixture that was poured into it.

Fig. 2 shows the apparatus employed by prestidigitators to bake a brioche in a hat. A is an earthern or porcelain

vessel (it may also be of metal) into which enters a metallic cylinder, B, which is provided with a flange at one of its extremeties, and is divided by a horizontal partition into two unequal compartments, *c* and *d*. The interior of the



A Brioche Baked in a Hat.

part *d* is painted white so as to imitate porcelain. Finally when the cylinder, B, is wholly inserted in the vessel, A, in which it is held by four springs, *r*, *r*, *r*, *r*, fixed to the sides, there is nothing to denote at a short distance that the vessel, A, is empty, just as it was presented at the beginning of the experiment.

The prestidigitator has secretly introduced into the hat the small cake and the apparatus, B, by making them fall suddenly from a bracket affixed to the back of a chair. That at least is the most practical method of operating.

The vessel, A, about which there is nothing peculiar, is, of course, submitted to the examination of the spectators. The object of adding the flour is to render the paste less fluid and to thus more certainly avoid the production of stains.

The cake being arranged under the apparatus, B, in the space, *d*, the contents of the vessel, A, poured from a certain height, fall into the part, *c*, of the apparatus; then the vessel, gradually brought nearer, is quickly inserted into the hat in order to seize therein, and at the same time remove, the receptable, B, with its contents and leave only the cake.

Fig. 3 shows this last operation. We have intentionally shown the part, B, projecting from the vessel, A, but it will be understood that in reality it must be inserted up to the base at the moment at which the vessel, A, introduced into the hat, is concealed from the eyes of the spectators. The prestidigitator none the less continues to move his finger all around the interior of the double vessel as if to gather up the remainder of the paste, which he makes believe to throw into the hat, upon the rim of which he even affects to wipe his fingers, to the great disquietude of the gentleman to whom it belongs.

The experiment may be complicated by first burning alcohol or fragments of paper in the compartment *c*, of the apparatus. Some prestidigitators even add a little Bengal fire. But let no one imitate that amateur prestidigitator who, wishing to render the experiment more brilliant, put into the receptacle such a quantity of powder that a disaster supervened, so that it became necessary to throw water into the burning hat in order to extinguish the nascent fire.

So Simple.

The trick, feat, puzzle, or whatever title may be given to it that I am about to describe, and, if possible, explain (for I am well aware my task is no easy one), cannot be

called new, since I can remember seeing my father perform it as long as I can remember anything, but at the same time I never saw it done by anyone except those to whom he had taught it, and I therefore conclude it is not generally known. It is far too good and puzzling a trick to be lost sight of, for while appearing simplicity itself, it

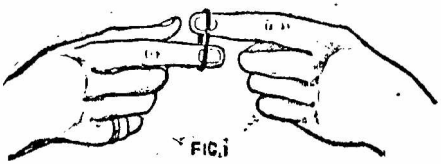


FIG. 1

is exasperatingly difficult to grasp and learn, even after you have again and again been shown the *modus operandi*. Another good point in its favor is that so little is required for its performance, nothing more than a ring of some kind, a table napkin ring is as good as anything, and this is generally available at the time when this kind of trick tells best, viz., after dinner. In order that the diagrams may be clear I have not drawn a napkin ring, but one of string, as this does not hide the position of the fingers so much.

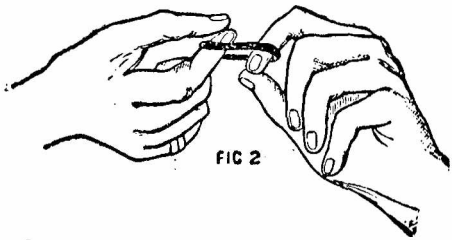


FIG 2

Take the ring, whatever kind you select, and insert your two forefingers into it from different sides, as in fig. 1, and turn the fingers round each other slowly, letting the direction be away from your body. Then close the finger and thumb of each hand round the ring, see fig. 2, and bringing the tips of the four together, open them as in fig. 3, and drop the ring.

It sounds simple enough, doesn't it? And yet, if you succeed in doing it in your first half dozen attempts I shall

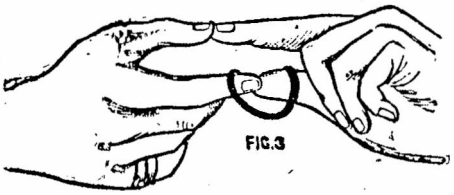


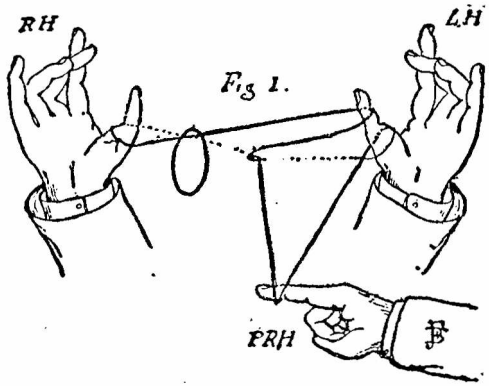
FIG.3

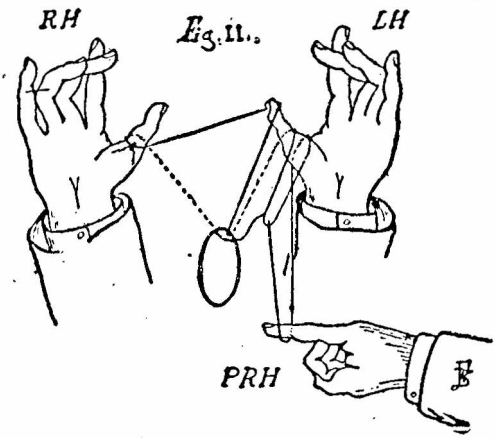
be astonished, and if you do it once, it is no reason you will do it again until you have got the one and all-important fact into your head, viz., that when you bring the tips of the fingers and thumbs together, the tip of the finger of the right hand must rest on the tip of the thumb of the left, and *vice versa*, and then in opening them keep the first fingers and thumbs joined together still, and the ring will at once be free. This explanation, I fear, may sound difficult, but if you practice with the illustrations before you, you ought to be able to get hold of the knack.

A table napkin ring is better to exhibit with than the piece of string I have drawn, because it rather veils the way in which the fingers are joined. You will have capital fun if any one, not knowing the trick, endeavors to do it. His efforts will be hopeless. You may show him again and again, and even put his figers right for him, and yet he will fail. I have set a whole table full of people hard at work twisting away at their rings, and imploring me to "show them just once more, and to do it slowly;" and the beauty of it is, that however slowly you do it, it is not a bit more easy to grasp. To onlookers, the twisting of the fingers round and round appears to be an important feature of the performance, and any one attempting it is certain to twist diligently for a time before he attempts to join the fingers, and, of course, the twisting can be shown as slowly as you like, and yet not disclose the trick; but if you want to have fun with the learner never omit the twisting.

An Ingenious Ring Trick.

Though not claiming strict originality for the accompa-





nying trick, I have reason to believe that it is far from common. It is quite twenty years since I first became ac-

quainted with it, and I have only revealed its "mysteries" to about half a dozen cronies. With these exceptions, and the "exceptions" they have made—I do not think many persons are capable of performing the trick; at least I never met anybody, neither have I known the most cute to execute it, though I have repeated the trick again and again. So I am of opinion it will interest my boy friends, and decidedly enable them to score one. In return I must ask a favor. When you are asked how it's done, tell your friends to buy this book and see for themselves.

In the accompanying illustrations I have aimed at "simplicity of comprehension," before artistic design. But if you carefully read my explanations, and minutely study the designs, I predict success—though not perhaps exactly at the first attempt.

You must first procure your sister or younger brother, or, if not blessed with either, a chum, to act as assistant. Whichever is chosen, they must first be bound to secrecy by threats of direful penalties if they divulge what they see. But if you prefer keeping the trick to yourself, a couple of pegs in a door, about eighteen inches apart, will do very well for "thumbs." I have illustrated the trick as it should be performed.

Now all this must seem very mysterious. Yet you may safely inform your audience there is nothing mysterious about it, though there is no mistake "the quickness of the hand deceives the eye," so some dexterity ought to be acquired. Of course the audience will not believe you—it never does! It is possible you are even doubting *me!* So I proceed.

Procure a piece of moderately stout, smooth string, about a yard long. Tie the ends together by a secure knot; if in public, allow some person in the audience to supply the string and tie the knot—it may be satisfactory to them, and will not prove detrimental to you. Then ask for a ring —not of an engaged young lady, as she may object to remove it.

Now ask some one to volunteer for assistant. Pass the string through the ring, and (loop each end over your assistant's thumbs, whose hands must be held in the position of fig. 1; but your string and ring will not yet appear as

there shown. You then announce it is your intention to remove the ring from the string without removing either of the loops from your assistant's thumbs. (In parenthesis I may here say that R. H. and L. H. apply to the assistant's right and left hands, and P. R. H. to performer's right hand, *i.e.*, yourself. It has not been necessary to show the performer's left hand.

Observe that the knot where the ends of the string are tied rests against your assistant's right thumb, and that the ring is near it too. The positions of the knot and ring are shown at R H, Fig. 1. Now to arrange the string as there shown.

Place the forefinger of the right hand on the *top* piece of string, about midway between your assistant's hands. Take the bottom string between the forefinger and thumb of the left hand, midway between your forefinger which rests on the top string, and young assistant's right thumb. To describe the movement which ensues is difficult, and you must endeavor to follow me closely. Pull the top string towards you with your right-hand forefinger; at the same time pass the bottom string upward and over towards your assistant's left thumb, upon which you must loop it *against* the sun. If you have understood me, the relative positions of ring, string and hands will be as shown at Fig. 1. Study this illustration carefully, so as to be sure you have it right before proceeding to the next movement.

On no account must you move your right-hand forefinger from the loop it retains until I tell you. With your left hand pass the ring towards your assistant's right thumb as far as it will go. Between the ring and his right thumb the string will be crossed. Carefully observe which is the *top* string. If you mistake it, you will spoil the trick. Take it between the forefinger and thumb of your left hand, and loop it on your assistant's left thumb, also *against* the sun. Fig. 2 fully illustrates the relative positions. It will be observed that the string, by looping, has drawn your assistant's hands closer together.

It is now necessary to call your audience's attention to the fact that, though you have placed loops upon your assistant's thumb, you have not taken any loop *off*. Then

tell him to close his thumbs and forefingers "that there may be no deception," and also to press his hands gently apart. Release the loop held by your right-hand forefinger, and give the ring a sharp pull with your left hand—and that is how it's done.

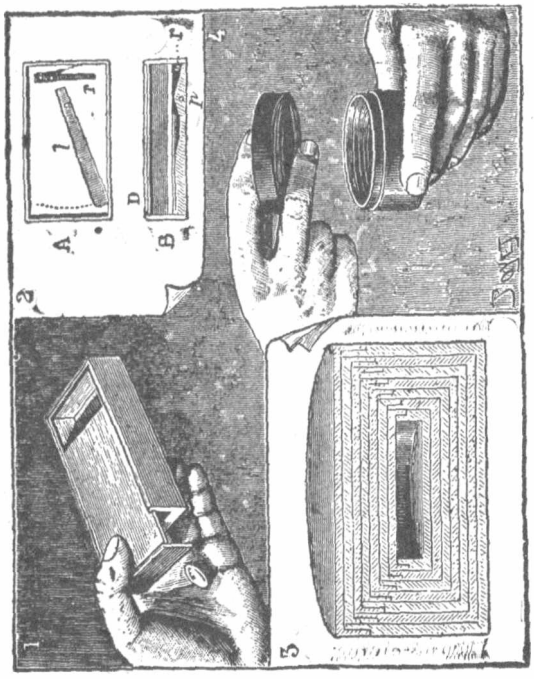
Disappearance of a Coin.

A marked coin is placed in a rectangular box, whence it instantaneously passes into a round box which is not reached until seven or eight other boxes, inclosed one within another, have been opened in succession.

Fig. 1 shows how the coin drops from the box in which it was placed into the hand of the prestidigitator, under one of the end pieces which is adherent to the cover, and consequently leaves an opening when the latter is drawn out. The spectators, however, are persuaded that the coin is still in the box, since they think they hear it strike against the sides of it when the box is shaken, although the sound is really produced through the mechanism shown in Fig. 2. At A is seen the lower part of a first bottom; *l* is a strip of metal movable horizontally upon a vertical axis formed of a nail which traverses it very near one of its extremities, while the other extremity moves from one side to the other, according to the line indicated by dots in the figure, when the box is shaken from right to left and left to right; *r* is a spring designed to separate the corresponding part of the second bottom of the box, movable through a tilting motion upon a horizontal axis that separates it into two unequal parts in the direction of its length.

At B is seen a vertical section of the box and of the double bottom, which is not everywhere of the same thickness. Under such circumstances, through the action of the spring, the side of this second bottom bears against the strip of metal and renders it immovable, even when one shakes the box, which, for greater security, is then grasped in pressing the point, D, with the thumb, the other fingers being underneath. If, on the contrary, the box is held by the opposite side, and the fingers press in such a way as to bend the spring and slightly incline the

double bottom, the strip of metal, set at liberty, produces, on striking against the sides of the box, the same sound that would be made by the coin were it inclosed therein.



DISAPPEARANCE OF A COIN.

Let us add that this second bottom is covered externally with black cloth glued all around and well stretched over the edge of the four vertical sides of the box.

While the spectators think they hear the coin in the box, the prestidigitator goes to get the second one, which, as we have said, contains a certain number of others that

Fig. 3 shows in section. But in advance, all the covers on the one hand and all the boxes on the other have been placed one within another, thus permitting of all of them being closed by a single maneuver after the coin has been placed in the central and smallest box.

As shown in Fig. 4, the covers are held in place with the middle finger of the right hand. In order that they may fit perfectly upon their respective boxes, the whole is slightly shaken, and, if need be, the side of the external box is struck a few times with the magic wand as if to point it out to the spectators.

The rectangular box is then grasped in such a way that no sound is heard any longer, and is immediately opened to show that it is empty. Then the round boxes are opened one after the other.

The spectators, in view of the short time required for this operation, cannot conceive through what magic process it has been possible to cause the coin (which could not have been changed, since the sign with which it is marked bears witness of that) to pass so rapidly to the center of all these boxes.

Thought Reading.

For some few years past it has been the fashion to experiment in what is generally known as "thought reading," and no doubt many astonishing results have been attained by the professors of the art. Not only has it been exhibited in public by clever performers, such as Stuart Cumberland, Alfred Capper, and Irving Bishop, but amateurs may occasionally be met with at evening parties, who, for the entertainment of their friends, are willing to exhibit their powers; and very often with most puzzling results.

Whether there really is anything in the matter, or whether their performances are only clever tricks. I must leave others to judge; it is not my purpose to discuss the question. They do find pins hidden in most extraordinary places, and they do read the numbers of bank notes without, as far as the audience is aware, having had an opportunity of gaining their knowledge. How it is done I must leave others to explain, if they will, but the object of this

paper is to show our readers how they can amuse their friends and gain *kudos* for themselves by exhibiting their proficiency in a branch of the mystic art, and that without any more training than can be gained in ten minutes.

I think the best plan by which I can explain my method and make it clear will be to give a description of a seance, and then initiate my readers into the *modus operandi*. Before I commence I may state that I cannot promise invariable success (in this I am like all other thought readers), but so far I have never failed, and very few professed thought readers can say this much.

We will imagine that a party of friends are gathered together in the drawing-room, and that the conversation has turned upon thought reading. Our amateur professor in the art then says in the most careless manner he can assume (for it adds immeasurably to the effect of his performance if it appears to be impromptu): "Well, ladies and gentlemen, though I do not set up to be a regular professor of thought reading, yet I found out quite by accident a short time since that nature has gifted me with a certain amount of power in this direction, and if it would amuse you, I am willing to attempt an experiment or two this evening."

This offer, you may be sure, will be received with enthusiasm by those present, for there will be certain to be among the guests some, at any rate, who have never witnessed an exhibition of thought reading, and who are anxious to have an opportunity of doing so. You continue: "Remember, if you please, that I will not promise to be successful, for in this matter success depends largely upon the condition of susceptibility in which my brain is at the time, and that I cannot tell until I attempt the experiments; at any rate I will do my best; and should I fail I must crave your kind indulgence." It is always well to commence with this warning, for it gives a greater effect to your subsequent success, and provides a loophole for escape *in case* you should fail. "The conditions under which I make the attempt are somewhat different from those of the regular performers, but I do not fancy you will think they detract from the extraordinary nature of the experiment.

"In the first place it is necessary that some lady or gentleman should act as a medium; some one between whose mind and my own there is sympathy. Perhaps you, sir," addressing a gentleman present, "would not mind assisting me in this capacity. Pardon me for a moment." You go up to him, lay your hand on his forehead, close your eyes and stand perfectly still and silent for a minute, while the remainder of the guests watch you in wonder. Then you open your eyes, at the same time heaving a sigh of exhaustion, and say: "No, sir, I am afraid I never could succeed with you; there is not an atom of sympathy between us. It would only be courting failure were I to attempt anything. Madam, will you aid me?" On receiving the lady's consent go through the same performance with her, but do not let your sigh express nearly so much exhaustion, and smile as you say, "With this lady I have not the slightest fear in making the attempt; our minds are in perfect sympathy, and I do not anticipate any difficulty in reading her thoughts. Now, while I am out of the room will the company settle among themselves on some small article, anything you like, from a pin to a pump-handle, and, having done so, will one of you, accompanied by the medium, take that article into a dark room and hide it in the most secret place you can think of? But you must allow the medium to know where it is placed. And I will ask this lady who has consented to act in that capacity to fix her thoughts most intently upon the hidden object, for the more concentrated her thoughts are the easier will be my task.

"From the time I leave this room before you have even settled on what you are going to conceal, I do not wish to cast my eyes on the medium until I have fulfilled my task, for if she will only fix her thoughts sufficiently I hope to be able to read them through brick walls quite as easily as if she were standing at my side.

"I can perform the experiment just as well in the light, but I think you will all admit that it is a far more exacting test of my powers if I am successful in a room from which every atom of light is excluded. These are the only conditions—I will run them over again that they may be quite clear. You settle on some small object, which one

of the party, accompanied by the medium, takes into a dark room and hides; you then keep the medium under lock and key, if you like, at any rate where I shall not have the slightest chance of communicating with her, in any form or shape. She fixing her mind intently on the hidden object, I will go into the dark room and do my best to discover the article. Is that quite clear? Very well, pardon me one moment."

You stand behind the medium, place your hands round the upper part of her head with the fingers resting on the temples, close your eyes, stand perfectly silent, and allow the muscles of your face to work and twitch, and then, with a deep sigh, remove your hands and leave the room without uttering a word.

For the sake of example we will imagine the company has selected the scarf-pin of a gentleman as the object to be hidden, and one of their number goes with the medium into the dining-room in which there is no light, the gas having been turned out, and conceals the pin in one of the metal leaves which ornament the gaselier, hanging from the ceiling. The hider and the medium come from the room, and close the door. Word is taken to you that all is ready. You enter the dark room, close the door behind you, and if within the next three minutes you do not emerge holding the hidden pin you are a duffer, and unworthy of credence as a thought-reader.

The manifestation, or whatever you may please to call it, to the uninitiated appears marvelous, whereas it is really most simple, and depends not so much on you as on your medium, who must be an accomplice. As a rule in conjuring, the use of accomplices marks a low standard of the art, but there are cases in which they can be legitimately made use of, and this is one of them. It will be a fair test of the powers of deception possessed by the thought-reader if he can conceal the fact that the person he selects as a medium is an accomplice.

The whole secret of the trick consists in the medium leaving his or her watch on, or as near as it is possible to place it to, the hidden article. This proceeding cannot be seen because the room is dark, and when the thought-reader enters and closes the door behind him, all he has to

do is to stand perfectly silent and listen. He will immediately hear the ticking of the watch, and, having found it, he must search all round it till he discovers some article likely to be the one hidden. It sometimes happens that it is impossible for the medium to place the watch touching the article, and there may be one or two things in close proximity; then it is the best course for the thought-reader to select the article which appears to be most out of place in the position.

In my own performances I take care to provide myself with a box of silent matches, and directly I enter the room I light one, and give my eyes as well as my ears a chance of discovering the watch; having found that, a second match generally is sufficient to discover the hidden article.

My first attempt in this line was when the scarf-pin was hidden in the gaselier. My medium had performed his part faithfully, and placed his watch in the leaf as well. I heard the ticking, but for some time I could not conceive where the sound came from. I walked round and round the room, listening intently. It always seemed to be at the same distance from me, and I was growing fairly puzzled when my eyes fell on the gaselier, and the next instant I had found the pin. It may be of service to some would-be thought-readers if I mention a few likely places in which articles are often concealed. For some reason or other, pins are the favorite article for concealment; after them come articles from the pockets, such as knives, pencil-cases, button-hooks, or thimbles.

Pins are often hidden by sticking them into the walls, in which case (if they are sufficiently firm) the watch can be hung on them, or else placed on the floor immediately beneath them. They are also thrust up to their heads in the padding and seats of chairs, when the watch can be laid on them. With other objects, a common place of concealment is within or below some ornament on the chimney piece, or, if there are books lying about, between the leaves. The feat seems so well-nigh impossible for an amateur to perform that you will not often find people pick difficult places of concealment.

Finally, I would advise half an hour's practice with your medium before attempting to give a performance; and

when you are in doubt as to having hit on the right article, it is well, on entering the room where the guests are awaiting you, to complain of the medium having allowed his mind to wander for a second or two; and then, should your selection prove at fault, you have some one else beside your infallible self to bear the blame.

Experiments in Black Art by Chemistry.

☞ As there is some danger in performing tricks of this kind, they should be managed with extreme caution, and on no account be attempted by very young and inexperienced persons.

To Obtain Fire from Water.

Throw a small quantity of potassium on the surface of a little water in a basin. Immediately a rose-colored flame will be produced. Any chemist will supply the quantity for several of these experiments for a very small sum.

To Give a Party a Ghastly Appearance.

Take half a pint of spirits, and, having warmed it, put a handful of salt with it into a basin; then set it on fire, and it will have the effect of making every person look hideous. This feat must be performed in a room.

The Fire and Wine Bottle.

Procure a tin bottle with a tube nearly as large as its neck, passing from the bottom of the neck to the bottom of the bottle, in which there must be a hole of a size to correspond with it. Between the tube and the neck of the bottle let there be sufficient space to allow you to pour in some wine, which will remain in the bottle outside the tube. Begin the trick by pouring a glass of wine out of the bottle, through which a confederate will thrust a burning fuzee into the tube, so that, at your command, fire is emitted from the mouth of the bottle. As soon as the fire is extinguished, or withdrawn, you can take up the bottle again and pour out more wine.

The Fiery Flash.

Let a quantity of minute iron filings drop upon the flame of a candle from a sheet of paper about eight or ten inches above it; as they descend in the flame they will enter into a vivid and sparkling combustion.

To Boil a Liquid Without Fire.

Put into a thin phial two parts of oil of vitriol and one part of water; by stirring them well together, the mixture instantly becomes hot, and acquires a temperature above that of boiling water.

To Procure Hydrogen Gas.

Procure a phial with a cork stopper, through which is thrust a piece of tobacco-pipe. Into the phial put a few pieces of zinc, or small iron nails; on this pour a mixture of equal parts of sulphuric acid (oil of vitriol) and water, previously mixed in a tea cup to prevent accidents. Replace the cork stopper with the piece of tobacco-pipe in it; the hydrogen gas will then be liberated through the pipe in a small stream. Apply the flame of a candle or taper to this stream, and it will immediately take fire, and burn with a clear flame until all the hydrogen in the phial be exhausted. In this experiment the zinc or iron, by the action of the acid, becomes oxygenized, and is dissolved, thus taking the oxygen from the sulphuric acid and water; the hydrogen (the other constituent part of the water) is thereby liberated and ascends.

To Copy Writing with a Flat-iron.

Mix a little sugar in the ink which is used for the writing. Lay a sheet of unsized paper, that is, soft white paper, damped with a sponge, on the written paper, and passing lightly over it a flat-iron, moderately heated, a copy may easily be taken.

To make Fringe appear about the Flame of a Candle.

Procure two pieces of plate-glass, moisten two of their sides with water, put them together, and look through them at the candle, when you will perceive the flame surrounded with beautifully colored fringes. This is the

effect of moisture intermixed with portions of air, and presents an appearance similar to dew.

To Produce Instantaneous Light upon Ice.

Throw upon ice a small piece of potassium, and it will burst into a bright flame.

To make Paper Fireproof.

To accomplish this, dip a sheet of paper in a strong solution of alum water, and when dry repeat the process two or three times. When it is thoroughly dried, you may put it in the flame of a candle and it will not burn.

To Melt Lead in Paper.

Procure a very smooth ball of lead and wrap it up in a piece of paper, taking care that there be no wrinkles in it, and that it be everywhere in contact with the ball. Hold it in this state over the flame of a taper, and the lead will be melted without the paper being burnt. The lead, when once fused, will in a short time pierce the paper, and, of course, run through.

To Melt Steel as easily as Lead.

With a pair of tongs or pincers hold a piece of steel in the fire till it is red hot, then touch it with a stick of brimstone, when the contact will cause the steel to melt and drop like a liquid.

A Light that Burns for a Year.

Put a stick of phosphorus into a large dry phial, not corked, and it will give a light sufficient to discern any object in a room when placed close to it. If the phial be kept in a cool place, where there is no great current of air, its luminous appearance will be retained for several months.

Flame Extinguished by Gas.

Place a lighted candle in a jar, and let carbonic gas be poured upon it from another jar. In a few seconds the flame will be extinguished, though the eye is incapable of observing that anything is poured out.

The Tobacco-Pipe Cannon.

Take of saltpetre one ounce, cream of tartar one ounce, sulphur half an ounce, beat them to powder separately, then mix them together. Put a grain into a pipe of tobacco, and when it is lighted it will give the report of a musket, without breaking the pipe. By putting as much as may lie on your nail in a piece of paper, and setting fire to it, tremendous reports will be the result.

Prince Rupert's Detonating Glass Bombs.

These may be made in the following manner: Drop some small pieces of common green glass, while red hot, into cold water, when they will assume a tear-like form. The spherical portion will bear very rough treatment, but the instant the smallest particle of the tail be broken off the whole flies into countless fragments. Many experiments may be performed with these curious drops, but, being attended with danger, are omitted here.

To Wash the Hands in Molten Lead.

Take one ounce of quicksilver, two ounces of good bole-ammoniac, half an ounce of camphor, and two ounces of aqua-vitae; mix them together and put them into a brazen mortar, beating them with a pestle. Rub the hands all over with this ointment, and they may be put into melted lead with impunity; the metal being poured upon them will neither burn nor scald.

To Make an Artificial Earthquake and Volcano.

Mix equal parts of pounded sulphur and iron filings, and having formed the whole into a paste with water, bury a certain quantity of it (forty or fifty pounds for example) at about the depth of a foot below the surface of the earth. In ten or twelves hours after, if the weather be warm, the earth will swell and burst, and throw up flame, which will enlarge the aperture, scattering around a yellow and blackish dust.

To Produce Fire from Cane.

The Chinese rattans, which are used when split for making cane chairs, will, when dry, if struck against each oth-

er, give fire; and are used accordingly in some places in lieu of flint and steel.

To Soften Iron or Steel.

Either of the following simple methods will make iron or steel as soft as lead:

1. Take a little clay, cover your iron with it, temper it in a charcoal fire.

2. When the iron or steel is red hot, strew hellebore on it.

3. Quench the iron or steel in the juice or water of common beans.

To Fill with Smoke Two Apparently Empty Bottles.

Rinse out one bottle with hartshorn, and another bottle with spirit of salt; next bring the bottles together mouth to mouth; both will at once be pervaded with white vapors. The vapors in question are composed of sal ammoniac—a solid body generated by the union of two invisible gases.

To Make Luminous Writing in the Dark.

Fix a small piece of solid phosphorus in a quill, and write with it upon paper; if the paper be then placed in a dark room the writing will appear beautifully luminous.

To Make Red Fire.

The beautiful red fire which is used in the theaters is composed of the following ingredients: Forty parts of dry nitrate of strontian, thirteen parts of finely powdered sulphur, five parts of chlorate of potash, and four parts of sulphuret of Antimony.

To Make Green Fire.

Take of flour of sulphur thirteen parts, of nitrate of baryta seventy-seven, of oxymuriate of potassia five, of metallic arsenic two, of charcoal three. The nitrate of baryta should be well dried and powdered.

To Make Wine or Brandy Float on Water.

To perform this seeming impossibility, take a tumbler half full of water, and placing a piece of thin muslin over

the top of the same, gently strain the brandy or wine through the muslin, and it will remain on the top of the water.

To Make Beautiful Transparent Colored Water.

The following liquors, which are colored, being mixed, produce colors very different from their own. The yellow tincture of saffron and the red tincture of roses, when mixed, produce a green. Blue tincture of violets and brown spirit of sulphur produce a crimson, Red tincture of roses and brown spirits of hartshorn make a blue. Blue tincture of violets and blue solution of copper give a violet color. Blue tincture of cyanus and blue spirit of sal ammoniac, colored, make green. Blue solution of Hungarian vitriol and brown lye of potash make yellow. Blue solution of Hungarian vitriol and red tincture of roses make black. Blue tincture of cyanus and green solution of copper produce red.

Colored Flames.

A variety of rays of light are exhibited by colored flames, which are not to be seen in white light. Thus pure hydrogen gas will burn with a blue flame, in which many of the rays of light are wanting.

The flame of an oil lamp contains most of the rays which are wanting in the sunlight. Alcohol mixed with water, when heated or burned, affords a flame with no other rays but yellow. The following salts, if finely powdered, and introduced into the exterior flame of a candle, or into the wick of a spirit lamp, will communicate to the flame their peculiar colors:

Chloride of Soda (common salt) Yellow.
" of Potash . . . Pale violet.
" of Lime . . . . Brick red.
" of Strontia, . . Bright crimson.
" of Lithia . . . . Red.
" of Baryta . . . . Apple green.
" of Copper . . . Bluish green.
Borax . . . . . Yellow.

Or either of the above salts may be mixed with spirit of wine, as directed, for Red Fire.

Orange Colored Flame.

Burn spirit of wine on chloride of calcium, a substance obtained by evaporating muriate of lime to dryness.

Emerald Green Flame.

Burn spirit of wine on a little powdered nitrate of silver.

Instantaneous Flame.

Heat together potassium and sulphur, and they will instantly burn very vividly.

Heat a little nitre on a fire shovel, sprinkle on it flour of sulphur, and it will instantly burn. If iron filings be thrown upon red hot nitre, they will detonate and burn.

Two Liquids Make a Solid.

Dissolve chloride of lime in water until it will dissolve no more; measure out an equal quantity of oil of vitriol; both will be transparent fluids; but if equal quantities of each be slowly mixed and stirred together, they will become a solid mass, with the evolution of smoke or fumes.

Two Solids Make a Liquid.

Rub together in a mortar equal quantities of the crystals of Glauber salts and nitrate of ammonia, and the two salts will slowly become a liquid.

A Solid Opaque Mass Makes a Transparent Liquid.

Take the solid mixture of the solutions of muriate of lime and carbonate of potash, pour upon it a very little nitric acid, and the solid opaque mass will be changed to a transparent liquid.

Two Cold Liquids Make a Hot One.

Mix four drams of sulphuric acid (oil of vitriol) with one dram of cold water, suddenly, in a cup, and the mixture will be nearly half as hot again as boiling water.

To Make Ice.

Although this trick is performed by means of chemicals, yet its product is obtained really by the use of mechanical laws. We must remember that ice is exactly the same thing as water so far as its composition is concerned, differing only in its state of density.

Ice, water and steam differ in density through the possession of a greater or less quantity of heat. Hence, the turning of water into ice really is a case of the operation of mechanical laws.

Now for the experiment. Put into a wide-mouthed jam-jar a smaller glass vessel containing the water to be frozen. Around the latter put a mixture of sulphate of soda (Glauber's salt) and hydrochloric acid (spirits of salts). The proportions must be eight parts of the former to five of the latter.

The action of these two chemicals on one another is to cause a cold of fifteen to seventeen degrees below zero, or forty-seven degrees below freezing point.

The same result may be obtained by mixing equal parts of nitrate of ammonia and water. In winter time when the snow is on the ground, a mixture of one part snow and one part common table salt an intense cold of twenty degrees below zero is obtained.

From this last fact we see how stupid are those people who sprinkle the salt on the pavements to get rid of the snow. True, the latter melts, but only after the production of intense cold, which is the cause of many diseases, not only slight ones like colds and chilblains, but too often the forerunners of consumption and other lung troubles.

Curious Change of Colors.

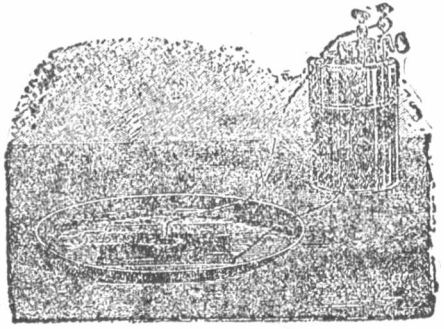
Let there be no other light than a taper in the room; then put on a pair of dark-green spectacles, and having closed one eye view the taper with the other. Suddenly remove the spectacles and the taper will assume a bright red appearance; but if the spectacles be instantly replaced, the eye will be unable to distinguish anything for a second or two. The order of colors will therefore be as follows: green, red, green, black.

The Metallic Colors.

The production of Mobili's circle is an electro-chemical experiment, very simple and amusing, which only requires either a battery or a magneto-electric machine.

In order to produce a number of circles of various descriptions and brilliant colors, a Bunsen battery is used in preference. Place in a saucer, or an ordinary round dish, a small plate of steel or uickel, connected by a brass wire with the negative pole.

The bottom of the saucer must be connected with the



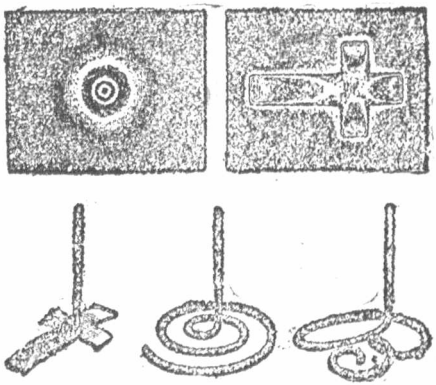
positive pole of the battery. Then there must be poured on the plate a solution of acetate of lead. The wire which connects the saucer must be near the metal plate, but without touching the latter.

After a little while a red spot will appear on the plate, and soon after it will rapidly extend and form concentric circles of prismatic colors.

With a little practice a boy can calculate the time it takes to obtain the most beautiful colorings, and so vary the effects produced. Care must be taken, when the operation is terminated, to wash the metallic plate and let it dry.

The colors are due to the decomposition of the light through the excess of the peroxide of lead deposited on the surface of the plate. In order to obtain good results, the metallic plate must be carefully polished, and the solution of lead well filtered.

One may produce different forms of figures, in varying the mode, by means of a brass wire bent in the form of a letter or a design.



Mobili's circles resemble Newton's rings. The colors are intense, and very pretty.

The renowned experimentalist discovered this phenomena in 1826. Since then various modifications have been introduced. It is often resorted to for ornamenting small objects, like buttons, pearls, jewelry, etc.

Invisible Inks.

By means of these may be carried on a correspondence which is beyond the discovery of all not in the secret. With one class of these inks the writing becomes visible only when moistened with a particular solution. Thus, if we write to you with a solution of sulphate of iron the letters are invisible. On the receipt of our letter, you rub over the sheet a feather or sponge, wet with a solution of nut-galls, and the letters burst forth into sensible being at once, and are permanent.

If we write with a solution of sugar of lead and you moisten with a sponge or pencil dipped in water impregnated with sulphuretted hydrogen, the letters will appear with metallic brilliancy.

If we write with a weak solution of sulphate of copper, and you apply ammonia, the letters assume a beautiful blue. When the ammonia evaporates, as it does on exposure to the sun or fire, the writing disappears, but may be revived again as before.

If you write with oil of vitriol very much diluted, so as to prevent its destroying the paper, the manuscript will be invisible except when held to the fire, when the letters will appear black.

Write with cobalt dissolved in diluted muriatic acid; the letters will be visible when cold, but when warmed they will appear a bluish green.

Invisible Yellow Ink.

Steep marigold flowers seven or eight days in clear distilled vinegar. Press the flowers and strain the liquor, which is to be kept in a bottle well corked. If you would have it still more clear, add, when you use it, some pure water.

To make the characters visible which you write with this ink, pass a sponge over the paper, dipped in the following solution:

Take a quantity of flowers of pansy, or the common violet, bruise them in a mortar with water, strain the liquor in a cloth, and keep in a bottle.

Invisible Red Ink.

To the pure spirits of vitriol or nitre, add eight times as much water. Use the above solution of violets to make visible the characters written with this ink.

Invisible Violet Ink.

Express the juice of lemons, and keep it in a bottle well corked. Use the violet infusion to make the writing visible.

Invisible Green Ink.

Dissolve salt of tartar, clear and dry, in a sufficient quantity of river water. Use the violet solution to render it visible.

Secrets thus written will not be brought to the knowledge of a stranger, because he does not know the solution which was used in writing, and therefore knows not what to apply to bring out the letters.

How to Rub Out Twenty Chalks

At Five Times, Rubbing Out Every Time an Odd One.

To do this trick, you must make twenty chalks or long strokes upon a board, as in the margin:

Then begin and count backwards, as 20, 19, 18, 17, rub out these four, then proceed, saying 16, 15, 14, 13, rub out these four, and begin again—, 12, 11, 10, 9,—rub out these, and proceed again,—8, 7, 6, 5,— then rub out these, and lastly say—4, 3, 2, 1; when these four are rubbed out, the whole 20 are rubbed out at five times, and every time an odd one, that is, 17th, 13th, 9th, 5th and 1st.

This is a trick which if once seen may be easily retained; and the only puzzle at first is, it not occurring to the mind to begin to rub them out backwards; it is simple as any thing possibly can be, and might do very well when people

are social and good humored together; but when 14—
they are flushed with liquor, and fractious by 15—
nature, I advise all those who love peace and 16—
quietness not to be curious to know what they 17—
cannot directly comprehend, as one word brings 18—
on another, and the consequence may be move- 19—
ment of the hands; or you may, instead of deceiv- 20—
ing others, deceive yourself.

To Pour Cold Water Into a Kettle

And Make it Come Out Hot Without the Aid of Fire.

You give a pint of cold water to one of the company, and taking off the lid of the kettle, you request him to put it into it; you then put the lid on the kettle; take the pint, and the exact quantity of water comes out of the kettle boiling hot.

Explanation.

This trick is performed by a kettle with two bottoms, boiling water having been previously conveyed into it through the nose, there is no passage for the cold water, which is put in where the lid is off; consequently the hot water can alone pour out.

This trick may be varied, and for the better, as the heat of the water may betray it, should the bottom of the kettle be full. You may therefore propose to change water into wine or punch.

A coffee pot may be made on a similar plan; but a kettle is preferable, it being more likely, from its size and breadth, to baffle the examination of the curious.

This trick may also be improved by an additional expense, so that whatever liquor is on either bottom may be poured out occasionally. For this purpose there must be a double passage to the nose of the kettle, and secret springs to stop either passage.

The Cannon Ball Trick.

The illusionist borrows from the audience two hats, which he places upon the table, and by way of diversion gives a brief lecture upon head-dresses in general, and hats in particular. "Show me his hat," says the professor, "and I will describe the man. Here's your 'flat brim,' that's a fast man. Here's your 'broad brim,' that's a man of peace. Here's your 'unbrushed either-way-front' hat; that's an untidy bachelor. Here's your 'well-worn' but still 'decent' hat, that's a family man. A Gibus! that's a play-goer." And thus he proceeds. Now taking the borrowed hats from the table he advances to the company, when, lo! on turning them over, out falls the cannon balls, rolling on the floor with the voice of thunder. The secret is this:—Any workman using a lathe can turn a ball of wood of a size big enough to go into a hat. When such is procured, a hole about two inches deep and the size of the finger is made in it. The ball is then painted and black-leaded, and made to appear as much like the real thing as possible. By the simple contrivance of the hole, the ball can be lifted up in the same way, and with as much ease as a thimble. At the side of the table that is furthest from the audience place the balls, raised on a stool and a few books, to nearly the level of the table. When the hats are taken up, there will be no difficulty whatever in putting the balls into them unperceived, because as you draw the hats over the side of the table you can put on the "thimble;" then by bending the finger the ball is in the hat.

To Change the Color of a Bird or Flower.

To accomplish this metamorphosis, it is necessary to have earthern vases which have little edges or rims near their mouths, and should be of a size sufficiently large to hold suspended the bird or flower which you intend placing in them. You should likewise be provided with stop-

pers of cork, of a diameter equal to that of their mouths. To make an experiment upon some bird, it is necessary to commence by making a hole in the stopper sufficiently large to contain the neck of the bird without strangling it. This done, you divide the diameter of the stopper into two equal parts, so as to facilitate the placing of it around the neck without doing injury to the bird. The two parts being brought together, you place at the bottom of the vase an ounce of quicklime, and beneath that a quarter of an ounce of sal ammoniac. When you perceive the effervescence commence to take place, you promptly insert the stopper, to which the bird is attached, leaving the neck outside. The plumage of the body, exposed to this effervescent vapor, will become impregnated with the various colors produced by this chemical combination. Remove the stopper and the bird, and you will perceive its feathers charged with divers shades. Two or three minutes serve to produce this effect, for you run the risk of stifling the bird, if exposed for any length of time to this vapor. In experimenting upon a flower, the hole in the stopper need only be large enough to hold the stem, which serves to suspend it in the air during the operation, which will be completed in one or two minutes.