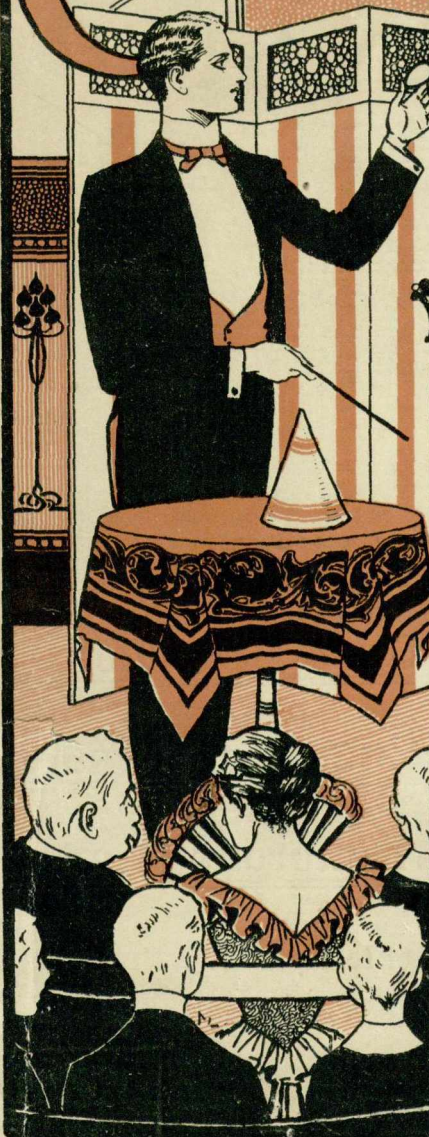


AUNT KATE'S

CONJURING & PARLOUR MAGIC



Principal Contents.

- Hints for Beginners.
- Tricks with Coins.
- Experiments with Eggs.
- Optical and other Illusions.
- Magic Corks.
- How to Change Water into Wine.
- Some Simple Experiments.
- String Tricks.
- Some After-Dinner Amusements.
- Tricks with Handkerchiefs.
- Second Sight.
- Curious Paper Rings.
- String Sticks.
- Tricks in Balancing.
- Card Tricks.
- Tricks with Glasses.
- Tricks with Rings.
- Sword-Swallowing Tricks.
- Magic Squares.
- How to Tell Hidden Numbers.
- The Automatic Dancer.
- The Travelling Doll.
- The Lovers' Knot.
- A Bridge of Dominoes.
- A Battery of Draughtsmen.
- &c., &c., &c.

... The ...



People's Friend

FOR HOME AND OUTDOOR READING.

For

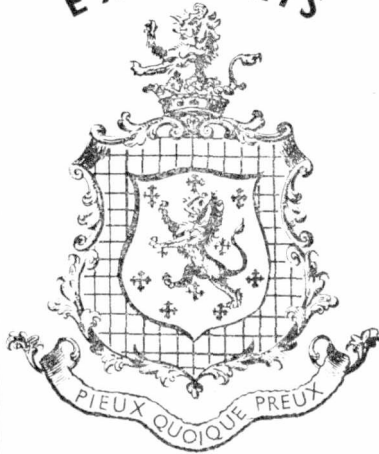
The Br

The Du

The Ser

The Lig

EX LIBRIS



WILL ALMA
M.I.M.C. (LONDON)



Reader

ader

Reader



The Humorous Reader

Contains Something suitable for every Reader.

WEEKLY
1D.

"We doubt if there is anything better of its kind published anywhere."

Daily Chronicle
(London.)

WEEKLY
1D.

TABLE OF CONTENTS.

	PAGE.		PAGE.
TABLE OF CONTENTS,	1	THE INDESTRUCTIBLE THREAD,	15
INTRODUCTORY,	3	CURIOUS PAPER RINGS,	16
HINTS FOR BEGINNERS,	3	TO CUT A STRONG CORD WITHOUT KNIFE OR SCISSORS,	16
TRICKS WITH COINS,	5	SPlicing STRING,	16
THE MONEY-MAKING TRICK,	5	TRICKS WITH HANDKERCHIEFS,	17
THE FLYING SIXPENCE,	5	THE REEFING KNOT,	17
THE VANISHING PENNY,	5	THE MAGICAL KNOT,	17
THE DISAPPEARING THREEPENNY,	6	THE LOVERS' KNOT,	18
A TWENTY-SHILLING TRICK,	6	THE UNTYABLE HANDKERCHIEF,	18
THE SUBMERGED COIN,	6	CUT AND BURNED HANDKERCHIEF RESTORED,	18
A COIN AND BOTTLE PUZZLE,	7	THE HANDKERCHIEF AND CANDLE,	19
THE BLOWN SIXPENCE,	7	CARD TRICKS,	19
COINS AND CROSS,	7	TO GUESS THE CARDS FIXED ON BY FOUR PERSONS,	19
COINS IN A ROW,	7	TO TELL THE NAME OF A CARD THOUGHT OF,	19
THE JUMPING SHILLING,	7	FOUND AT THE SECOND GUESS,	19
THE STATIONARY SHILLING,	7	THE SURPRISE,	20
THE REVOLVING COIN,	7	THE WANDERING ACE,	20
THE EFFECT OF GRAVITY,	8	A CLEVER CONSTABLE,	20
WHAT MAKES IT SWING?	8	TO TELL HOW MANY CARDS A PERSON HAS SHIFTED,	20
THE VANISHING HALF-CROWN, SECOND SIGHT,	8	CAUGHT IN FLIGHT,	21
BOTTLE AND COIN TRICK,	8	TO NAME A CARD WITHOUT ITS BEING SEEN,	21
A LIVELY PENNY,	8	A CARD AND PENNY TRICK,	21
A SIXPENCE IN A BALL OF WOOL, TO DRIVE A NEEDLE THROUGH A HALFPENNY,	9	TO SCENT OUT A CARD CHOSEN FROM A PACK OF SIXTEEN,	21
THE DISAPPEARING PENNIES,	9	TO CALL ANY CARD IN THE PACK,	21
EASY WAY TO MAKE MONEY,	10	BETRAYED BY ITS WEIGHT,	22
THE OBEDIENT SIXPENCE,	10	BALANCING TRICKS,	22
TRICKS WITH CORKS,	10	THE PENCIL AND KNIFE FEAT,	22
AN OBSTINATE CORK,	10	BALANCING A TUMBLER,	22
A DELICATE LIFTING FEAT,	10	TRICK IN BALANCING,	22
A DIFFICULT LIFTING FEAT,	10	THE BALANCED PLATE,	22
A CLEVER SELL,	10	A CUP IN DANGER,	22
THE FOUR CORKS,	11	A BALANCED GLASS,	23
THE COHESIVE CORKS,	11	A BALANCED BOTTLE,	23
A LAUGHABLE FEAT,	11	TRICKS WITH GLASSES,	23
EATING CORKS,	12	WATER CHANGED INTO WINE AND WINE INTO WATER,	23
CORKS EASILY DRAWN,	12	WATER ABOVE ALE,	23
AN ACROBATIC CORK,	12	FLOATING A PIN IN WATER,	24
A SIMPLE FEAT,	12	A ONE-HANDED TUMBLER TRICK,	24
CORK AND CAMPHOR TRICK,	12	ANOTHER TUMBLER TRICK,	24
A CORK MOUSE,	13	LIQUOR UNDER A HAT,	24
STRING TRICKS,	13	THE MAGICAL TUMBLERS,	24
THE BOUND SCISSORS,	13	A DIFFICULT LIFT,	24
THE ENDLESS THREAD,	13	HOW TO EMPTY A GLASS,	24
STITCHING WITH A KNOTTED THREAD,	13	THE DISAPPEARING GLASS,	25
CUTTING THROUGH THE FINGERS (No. 1),	13	A NOVEL MODE OF EMPTYING A TUMBLER,	25
CUTTING THROUGH THE FINGERS (No. 2),	13		
THE CUT TAPE,	14		
THREADING THE NEEDLE,	15		
TRICKS WITH SCISSORS,	15		
THE MAGIC THREAD,	15		

	PAGE.		PAGE.
EXPERIMENTS WITH EGGS,	25	TO SPLIT AN APPLE INTO TWO EQUAL	
AN EGG THAT VARIES IN WEIGHT, ...	25	PARTS WITH THE FINGER,	39
HOW TO MAKE A MAMMOTH EGG, ...	26	A TOUCHING PICTURE,	39
FACIAL EXPRESSION ON AN EGGSHELL,	26	TO PEEL AN ORANGE WITHOUT LEAVING	
TO BLOW AN EGG FROM ONE WINE-		THE PITH ON,	39
GLASS TO ANOTHER,	26	THE LITTLE CONJURER,	39
THE FLEXIBLE EGG,	26	FUN WITH CLOTHES PINS,	40
THE ROTATING EGG,	26	A SPRIGHTLY DANCER,	40
THE SELF-COOKING EGG,	26	THE WINDED AEROBAT,	40
THE PERFORMING EGG,	27	ORNAMENTS FROM LOBSTER SHELLS, ...	41
THE HOOP AND THE EGG,	27	THE LEMON PIG,	41
TRICKS WITH RINGS,	27	SOME OPTICAL AND OTHER ILLUSIONS,	41
THE RING ON THE STICK,	27	THE GOTHIC ARCH,	41
A RING PUZZLE,	28	THE BIRD IN THE CAGE,	41
ANOTHER RING TRICK,	28	THE DISAPPEARING WAFERS,	41
MISCELLANEOUS TRICKS,	28	A CANDLESTICK ILLUSION,	42
THE DIVIDED PEAR,	28	A TRANSPARENT HAND,	42
THE CUBE IN THE HAT,	28	ESTIMATION OF DIAMETERS,	42
SWALLOWING A BARBER'S POLE, ...	28	HALFPENNY ILLUSION,	42
THE FOUR-MATCH PROBLEM,	29	COLOURED CARD TRICK,	42
THE PAPER TOP,	29	TWO MARBLES TRICK,	43
SWALLOWING A KNIFE,	29	THE "ADHERING" COIN,	43
A STARTLING SWORD TRICK,	31	THE DECEPTIVE PILE,	43
STRAW TRICK,	31	THE EYE DECEIVED,	43
THE BRIDGE OF DOMINOES,	31	SOME SIMPLE EXPERIMENTS,	44
TRICK WITH MATCHES,	31	INVISIBLE WRITING,	44
A BATTERY OF DRAUGHTSMEN, ...	31	FOUR LAYERS OF LIQUIDS,	44
THE LAW OF INERTIA,	31	EATING FIRE,	44
THE TRAVELLING DOLL,	32	CONVERTIBLE SUBSTANCES,	44
STRING STICKS,	33	THE MAGIC WHIRLPOOL,	44
A BURNING SNOW MOUNTAIN,	33	A GHOSTLY LIGHT,	44
THE ELECTRIFIED PIPE,	33	WATER THAT WILL NOT SPILL,	44
A STRIKING SIGHT,	35	MAGICAL TRANSMUTATION,	44
THE AUTOMATIC DANCER,	34	TWO MAGICAL FIGURES,	44
ONE STROKE PUZZLE,	34	A MAGIC DRAWING,	45
ARE YOU NERVOUS? TRY,	35	VORTEX SMOKE RINGS,	45
THE TANTALISING PENCIL,	35	TO BOIL WATER IN PAPER,	45
TELLING AN UNSEEN AMOUNT,	35	CAMPHOR IN WATER,	45
AN INGENIOUS CANDLESTICK,	35	MAGIC TRACINGS,	45
A CANDLE BURNING UNDER WATER,	35	AN OLD METHOD OF TELLING TIME,	45
ANOTHER CANDLE TRICK,	35	THE STRENGTH OF THE BREATH, ...	46
MAGIC SQUARES,	36	A GREAT EXPERIMENT ON A SMALL	
THE MAGIC OF NUMBERS,	37	SCALE,	46
SO NEAR AND YET SO FAR,	37	A DEAD GAS,	46
A TANTALISING SWEETMEAT,	37	A SHRIMP SYPHON,	46
WINNING BY A NECK—NECK OR		SIMPLE FORM OF SYPHON,	47
NOTHING,	37	COMPLEMENTARY COLOURS,	47
ATTRACTION AND REPULSION,	37	A BEAUTIFUL EFFECT,	47
WHEN A FRIEND INTENDS TO RISE, ...	37	DOTS AND DASHES,	47
THE OBSTINATE LEAF,	37	EXPERIMENTS IN ELECTRICITY,	48
KICKING THE SPOOL,	38	A PIECE OF BROWN PAPER,	48
INGONVERTIBLE,	38	HOW TO PRODUCE ELECTRIC LIGHT, ...	48
HOW TO TELL A PERSON'S AGE,	38	A HOME-MADE MAGIC LANTERN,	48
IMPOSING ON A COMPANY,	38	CURIOUS MISHAP AT A CONJURING	
A STARTLING TRICK,	38	ENTERTAINMENT,	48
NOT THE BEST WAY TO LIGHT A			
CANDLE,	38		
AFTER DINNER AMUSEMENTS,	39		
TO MAKE A WINE GLASS WITH AN			
ORANGE,	39		
HOW TO MAKE A PIG WITH ORANGE PEEL,	39		

AUNT KATE'S

Conjuring and Parlour Magic

INTRODUCTORY.

THIS is the first of my many hand-books which has been prepared, exclusively, I may say, for my nephews. I do not suppose that many of my nieces take any very practical interest in conjuring, although, doubtless, they appreciate the endeavours of their brothers and male friends to mystify them by means of the "Black Art." I do not forget that women have occasionally distinguished themselves as magicians, but the great majority of conjurers are drawn from the other sex, and it is in the hope that my nephews may have something with which to amuse themselves during the winter nights that I have set about the publication of this little work on "Conjuring and Parlour Magic."

The contents which go to form this book were brought together in the first instance by one who was no mean conjurer himself, and who, for more than a quarter of a century, was almost continually giving hints to a large circle of amateur magicians. Their present arrangement has been undertaken by another who has also evinced more than a passing interest in "the turn of the wrist and the twist of the elbow." I feel confident, therefore, that, for the beginner, at all events, the book will prove of no small value.

In the preparing of "Conjuring and Parlour Magic" one point that has been kept in view is that no trick has been introduced which demands much pecuniary outlay for apparatus. Tricks with such easily available articles as coins, eggs, handkerchiefs, and cards have been given in abundance, and with a little practice and attention to the instructions laid down no one should find it difficult to arrange an interesting conjuring programme. After the beginner has mastered the contents of this book, and become proficient in the tricks which it explains, I have no doubt he will pass to those larger and more pretentious works, the practice of which demands greater skill and outlay.

AUNT KATE.

HINTS FOR BEGINNERS.

The first essential in conjuring is patience. The facility and ease which are necessary to effective sleight-of-hand can only be acquired by much patience, and if a man is not willing to "try and try again," he should never begin the art. Everything is learned by degrees, and the amateur conjurer will find it judicious to begin with simple tricks. As he gains proficiency in these, he will pass on to feats requiring greater dexterity. One golden rule to remember at the outset is—Always practice alone, and in front of a mirror. If you stand before a large looking-glass you see every movement you make, and by gazing steadily into the mirror gradually learn to perform the tricks without gazing at your hands or following your fingers with your eyes. Having acquired the ability to work automatically, you are in a fair way towards complete success. By looking at your audience and feigning indifference you beget in them increased wonder at the ease with which you do a thing, and their mind becomes so occupied with "wondering" that they pay less attention to solving the question how this or that feat is accomplished.

It is always wise to acquire various methods of performing the same trick. If you have an alternative way of working, it comes in handy should you blunder in the first performance, or should it become apparent to you that some one in the audience suspects your operations. Never be too anxious to give a performance. Practise incessantly, and only when perfect perform in public. Having supposed that by practice the student has become expert, and is ready to give illustrations in the art, we shall proceed to give a few hints as to how a performer should conduct himself before his audience.

One of the first requisites is that he be able to enter into the enjoyment of the tricks he is about to perform. He must take a real pleasure in doing them, and in proportion as he enjoys their exhibition will he delight his audience. A wizard must

have something to say in connection with every item, and must put life and vivacity into all that he says and does. He should have a certain amount of patter or talk for every trick, and be able to set it off in a free and easy style. If he is ready-witted, and can throw in something appropriate on the spur of the moment, so much the better for his chances of success. A conjurer should look his audience straight in the face while he is speaking (he has already acquired this habit by working in front of a mirror); he should not remain standing on one spot, but should move about with a free-and-easy deportment. He should keep his hands moving, and not let them hang loose and motionless at his sides.

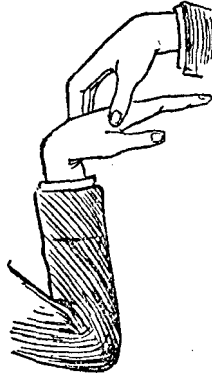
The first and most important thing for the success of an entertainment is to get the audience into good humour—to take away from them that stolid or keenly critical look which is so apt to discourage or disconcert an amateur. There must be a feeling of good fellowship created between audience and entertainer at the very outset, and once that is obtained, all that follows becomes easy and pleasant and smooth, and even a failure may be laughed over good humouredly. It is just at this point that most amateurs fail. They come before their audience stiffly and awkwardly; they feel anxious about the success of the entertainment, and anxiety betrays itself on their faces and general deportment. When they attempt a joke, their joke falls flat, their concerted patter comes insipidly from their lips, and there is a mechanical ring about all their utterances that acts like a wet blanket upon their audience, and reacts with telling force upon the conjurer. How is all this to be avoided? It is here the born conjurer will appear at his best. He will feel easy, and he will joke pleasantly, and before many minutes are past he will be in complete sympathy with his audience. No amount of instruction can give this necessary qualification, but it may to a large extent be acquired by study and practice. To illustrate these points let us take an imaginary case.

We will suppose that the entertainment takes place in a small schoolroom. The platform is raised, say a foot or two from the floor. At a table at the back of the platform is arranged the conjuring apparatus for the evening's programme. A bare table stands at the front of the platform, and towards this the conjurer comes to announce his entertainment, or on its being announced by the Chairman. There is an easy expression of good humour on his face. He begins by offering a few observations upon the happiness of being a conjurer and able to say and do whatever one pleases to any one. He then observes that, of course, everyone would like to be a conjurer, and

it is to be his business there that evening, not only to teach them how to become one, but to make them able to show others what they have seen him accomplish. He then goes on to tell them that those who desire to excel in sleight-of-hand or necromancy must have certain natural capabilities for the work, and the person who is able to do the feats which he is going to show them will have the best chance of excelling in the art.

In the first place, he says, all magical tricks are performed by the twist of the wrist and the turn of the right hand, and to illustrate this he will show how the twist of the wrist is performed, and the person who can make the wrist turn upon a pivot as he does should have good hopes of success.

Now, any one can do this. Stretch out the left arm, pat the back of the left hand with

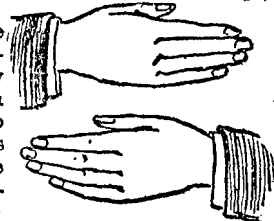


the right hand, and cause the arm to rise up from the elbow; then when the forearm is at right angles with the upper arm, pat the back of the hand and cause it to bend over to right angles with the forearm, as shown in the cut, then take the left hand between the finger

and thumb of the right hand, and twist the hands outwards as far as can conveniently be done. The attitude looks most ridiculous and strange, and causes much wonderment. On lifting the finger and thumb from the left hand, allow it to return to its normal position with a jerk, and the wonder will be still further increased.

The turning of the two hands in opposite directions is apparently a much more simply performed feat,

and yet, strange to relate, we believe that hardly more than one in 100 is able to do it. It consists in making the left hand perform a circular



movement, and the right hand perform a circular movement round it, but in an opposite direction. The writer is able to do this with ease, and by practice most people could succeed in doing it. Its effect upon an audience of children is wonderful. They at once start to the feat, and soon all are engaged trying to make their two hands go round in opposite directions. The illustration shows the method of placing the hands.

Lots of people are capable of performing some little, simple feat with the hands or fingers which others, without considerable practice need not attempt. Anything of this kind will be effective in creating a good understanding between amuser and amused, and causing some innocent diversion. Let any of these things be done that suggests itself to the experience or aptitude of the conjurer, and so get at that desirable state of good fellowship with your audience before beginning to any tricks, however simple.

TRICKS WITH COINS.

One of the most suitable tricks with which to open your performance is that in which you inform your audience that you are going to show them the easiest and most expeditious method of making money. This will immediately enlist interest in your proceedings, as those who are averse from learning the secret of acquiring wealth easily and speedily are in the minority.

THE MONEY-MAKING TRICK.

Procure three sixpences of the same issue, and having previously put a little ordinary candle wax on one side of the coins, take an opportunity, during your opening address, of secretly sticking them to the underside of the table, about half an inch from the edge, and eight to ten inches apart. Now you are in a position to perform your "money-making-trick." Turn up your sleeves and take the third sixpence in your right hand, drawing particular attention to the exact date and its general appearance, and (indirectly) to the fact that you have no other coins concealed in your hands. Turn back the tablecover, and rub the sixpence with the ball of the thumb backwards and forwards near the edge of the table: in this position your fingers will naturally be under the table. After rubbing for a few seconds you say—"It is nearly done—the sixpence is getting hot," and then a few moments later draw the hand away quickly, and bring with it one of the concealed coins, which you exhibit as being produced by the friction. Pocketing the waxed coin, and showing you have only one coin in your hand, repeat the operation with the second.

The next trick to be described may be called

THE FLYING SIXPENCE.

and the following is the method of its performance:—Take one of the coins used in the first trick, and, having told the audience you mean to make it pass from the table into a hat placed at a distance therefrom, lay it in the centre of a handkerchief spread out on the table. Now this handkerchief should have the corner nearest your right hand slightly soaped before beginning the trick. Taking the soaped corner in the fingers of the right hand, fold it over to cover the coin,

then cover this corner with the left hand one in the same way. You may now tap (or allow any party to do so) to satisfy the audience that the coin is still under the corners of the handkerchief. Next fold over the two remaining corners to form the handkerchief into a square. Secretly place another sixpence between the first and second fingers and thumb of the right hand, and having borrowed a hat, take it in this hand with the tips of the fingers (sixpence under them) just inside the rim. Now show the inside of the hat, and turn it upside down to satisfy every one that it is perfectly empty, and then put it in any position away from the table (and where no one can see inside). When placing the hat allow the sixpence to slip from under the fingers down inside the crown. You now return to the handkerchief on the table. Putting the tips of the fingers of both hands under the folds of right and left corners respectively, you say, "one—two—three—pass!"—at the same time drawing the hands smartly outwards: this will bring the soaped corner with the coin adhering to it, into the right hand, when it can readily be removed. Any person now examining the hat will find the duplicate coin inside.

THE VANISHING PENNY.

The "stock-in-trade" for the following trick consists of a yard of thin black elastic and three pennies, one of them with a hole in it, the two others scratched with a cross, or some other mark, to distinguish them from other pennies. The conjurer makes the following preparations. He ties the elastic round his leg—right for preference—just above the ankle, and to the free end of the elastic he fixes the bored penny, concealing the latter under the upper of his boot. Next he hides a marked penny in any odd corner that may appeal to his imagination, and the remaining marked penny he drops, as opportunity offers, into the pocket of the staidest old gentleman handy. He now opens the campaign by borrowing a penny. Looking hard at it he pretends that he is about to read the date, but checking himself he explains that as dates are very often alike it will be better to mark it (on the head side) with a cross, and this he takes care to show he has duly performed. He then holds his arm out straight and slightly elevated, and grasps a part of the coin between his middle-finger and thumb, and makes a motion precisely as if he were snapping his fingers. Noiselessly, and with lightning rapidity, the coin will fly up his arm past the elbow joint, and will remain snug there (unless the arm be briskly shaken) until an opportunity occurs to remove it. After showing the audience that the penny has disappeared, he intimates

that he has spirited it away to such and such a corner, and invites some one to prove his assertion, when, of course, what apparently is the identical penny is found there. The cries of amazement that break out on all sides are met by the conjurer with a modest "Oh, that's nothing! Will any one favour me with a felt hat?" The hat being forthcoming (an ordinary one with an arched brim for preference) he lays it down on the carpet, selecting a part of the room out of the full glare of light. Under this hat he elects to put the marked penny which has just been recovered; but palming it, he really fingers the coin to which the elastic has been attached. To convince the company that there is no deception about the penny being left under the hat he invites a not too inquisitive member of the party to stand erect and hold the coin down with the pointed end of an umbrella—the folds of the latter being handy for hiding any possible clumsiness—and then grasping the hat by both hands, he edges it gradually over the coin, and then gives the word for the umbrella to be withdrawn. Simultaneously the penny flies noiselessly back to the conjurer's leg without in any way disturbing the hat. Standing clear of the headgear, he makes mystic passes and incantations, and solemnly announces that the penny has been wafted into Mr —'s coat pocket. A dash is made for the hat, and, sure enough, the penny is not there; and next moment Mr — announces, with much bewilderment, that the marked penny is in his pocket right enough. The deception may be accentuated if a soft felt hat with a hole in the centre is available, for the coin can then be held down with a walking stick when actually under the hat. A rehearsal or two will enable the average reader to mystify his friends considerably, but it must especially be not overlooked that the decoy coin, after leaving the hat, is left dangling to his leg, and the other leg must be manoeuvred so as to hide the fact.

THE DISAPPEARING THREEPENNY.

Having previously stuck a small piece of white wax on the nail of your middle finger, lay a threepenny on the palm of your hand, and, addressing the company, tell them that it will vanish at the word of command. You then close your hand, and on bringing the waxed nail in contact with the coin it will adhere firmly to it. You then blow on your hand, crying "Begone." You suddenly open it, and, exhibiting the palm, show that the coin is gone.

Make your own Clothes.

Full directions how to cut dresses and other garments in Aunt Kate's Dress-making Book. Price ONE PENNY; Sold everywhere.

A TWENTY-SHILLING TRICK.

This deception, which appears as marvellous to the eyes of the uninitiated, is thus performed:—Borrow 20 shillings from the company, which display on a plate, having previously prepared five shillings in your left hand, which you keep concealed. Then take the shillings from the plate in your right hand, and mixing with them the concealed five give them to one of the company to hold. Ask the possessor to return five to you, which he will do, supposing he then retains only fifteen, although in reality he, of course, has twenty. Now have another shilling placed in your right hand, so that when giving the five shillings to another person to hold you may mix it with that sum, and place the six shillings in his hand. You may now ask him as before to return one. When you take it remind him he has only four, and you must now proceed with the most marvellous part of your illusion. Take the one shilling you have just received in the right hand, palm it, and pretend to place it in the left. Then striking the left hand with your magic rod, bid it fly into the closed hand of the person holding the five, or, as he supposes, the four shillings. On unclosing the hand the shilling will, of course, appear to have been transferred thither, and great amazement will result. Now, taking the five shillings, make a more dexterous pass into the left hand, whence you bid them fly into the closed hand of the person holding the supposed fifteen, whom you now ask to return you the full sum of twenty shillings, and who, much to his wonder and that of the company, is able to do so.

THE SUBMERGED COIN.

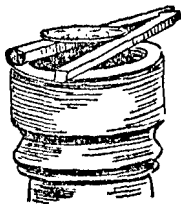
Place a coin in a shallow plate, and near it an inverted glass. Then pour enough water into the dish to cover the coin. The puzzle you now announce to those around you is—How may you lift the coin from the plate without wetting your fingers? The answer is simple. Cut a slice of cork, and place on the top of it some matches and paper. Float the cork on the water, light matches and paper, and carefully cover them with the glass. When the burning is over, the water in the plate will be sucked up into the inside of the glass, leaving the coin quite dry, so that you can now pick it out, fulfilling the conditions of the experiment. The success of the trick is due



to the fact that the heat causes the air inside the glass to expand, and therefore to rarify, so that the pressure of the air outside becomes greater than that inside. The result is that the water is sucked in.

A COIN AND BOTTLE PUZZLE.

One of the simplest of coin tricks may be performed as follows. Across the mouth



of a bottle place a wooden match which has been broken at the middle and bent back until the ends are about a quarter of an inch apart. Then place a threepenny piece on the top of the match and challenge the onlookers to cause the coin to drop into the bottle without touching the bottle, match, or coin. The trick is very ingenious, and all the more so on account of its simplicity. It consists in letting fall upon the angle of the match a drop or two of water. The wood naturally begins to swell at that point, the result being that the angle of the match slowly widens, until it is sufficient to allow the coin to drop through and into the bottle.

THE BLOWN SIXPENCE.

Into a wine-glass (a conical one, if possible) put a sixpence, and above it place a florin or a half-crown. The latter should not be in contact with the sixpence, but the glass should be of such a shape and size that the florin or half-crown rests near the mouth of the glass. Now blow vigorously upon the larger coin. It will wheel round upon its axis, and the sixpence beneath will be sent with a leap from the bottom of the glass, being expelled by the force of the breath, and will fall either upon the table or upon the florin. A little practice will make the trick easy of performance.

**COINS AND CROSS.**

To do this amusing little trick place five coins in a row, and one above and another below the centre coins—seven in all. Then ask one of your audience to make a cross with these coins, having an equal number of coins in all the arms of the cross, and to do it without moving more than two of the coins. The following is the solution:—Take the two end coins from the row of five and place them upon the middle coin.

COINS IN A ROW.

Here is another coin puzzle. Place eight coins in a row. Then re-arrange them in couples, any coin you move being passed over two (not more) other coins. This is the way to do it:—First place the fourth coin upon the seventh, then the sixth on the second, the first on the third, and the fifth on the eighth. Having asked your audience to try the puzzle first, allow them, after a little while, to see you do it, and then let them try again. Even then, in most cases, they will be unable to do it.

THE JUMPING SHILLING.

Place a shilling near the edge of the table, and upon it put a pint bottle, neck downwards. With a thin-bladed knife strike the coin sharply on the edge, when it will fly from beneath the bottle, leaving the latter standing. An experiment depending upon the same mechanical principles may be performed thus. Take a piece of paper about 12 inches long by about 3 or 4 inches wide and place it near the edge of a table, with about three-quarters of its length projecting over the edge.



Upon it place a tumbler, nearly full of water. Then, holding the outer extremity of the paper, strike the paper a sharp blow between the hand and the tumbler. The paper will come out, but the tumbler will remain.

THE STATIONARY SHILLING.

Place a small card upon the tip of one of the fingers of the left hand, and on the card, immediately above the finger, put a shilling. Now give a smart blow to the card with the second finger of the right hand, and the card will be whirled from under the coin so swiftly that the latter will be left on the tip of the finger.

The same, or a similar feat, can be performed with two wineglasses. Place a sheet of cardboard, or thin wood, over both, and then, with a smart fillip, send it spinning from under the coins you have placed upon it, and they will drop into the glasses.

THE REVOLVING COIN.

Lift a coin between two pins, as illustrated in the sketch. Blow upon it with all



your force, and the coin will revolve upon the pins as an axis with great rapidity.

THE EFFECT OF GRAVITY.

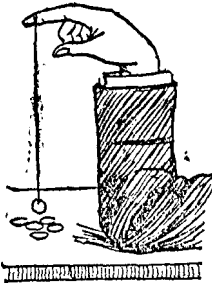
Here is a very puzzling little trick. Hold two pennies together between the thumb



and the first two fingers of the right hand, about 15 inches directly above the open palm of the left hand. Let the lower coin drop, and you will find that it has turned over in spite of you. You can modify the trick by asking a friend to hold the coins. Then inform him that you can always tell which side will come uppermost, if he will show you which side is underneath. The side, of course, which you have seen, will be the one, as the coin turns over in dropping.

WHAT MAKES IT SWING.

Attach a heavy gold ring to the end of a piece of silk thread, a foot in length, and fasten the other extremity to the forefinger of the right hand. Then place the forearm in the position indicated in the sketch, so that the ring hangs within half an inch of the table. When it has come to rest, place underneath it three or four one-shilling pieces, and for some reason or other it will begin to swing like a pendulum from side to side.



THE VANISHING HALF-CROWN.

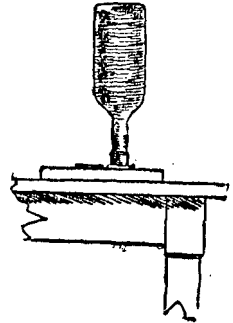
On account of their weight two half-crowns are the most suitable with which to perform this trick. First take both coins in the right hand, and throw them one at a time into the palm of the left hand. Repeat this once or twice, and when about to present them (apparently) to the onlooker, throw the first one as before, but instead of repeating this action with the second coin, bring the right hand down smartly as before, and at the same time jerk the left hand upwards, and thus throw the coin it contains into the right hand, when it will strike against the coin already there. To all appearance both coins will be in the left hand as before. You can then ask the "sold one" to accept the donation as you extend the left hand. This is a very pretty trick when well performed, but it requires a good deal of practice to do it well.

SECOND SIGHT.

Borrow four coins—the more metal in them the better for the trick—pennies will answer very well, and have them put into a hat. Ask a lady or gentleman to take one coin out, and after examining it, to pass it round so that others also may become interested in the trick, when you will pick out the same coin without looking into the hat. Whilst the coin is being examined keep tossing the other coins in the hat to cool them as much as possible. It will not then be difficult to select the coin, which has been slightly heated on being handled by several people before it is returned to hat.

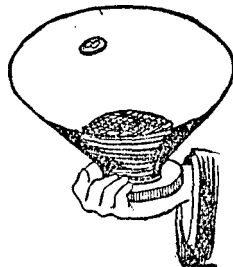
BOTTLE AND COIN TRICK.

The following is dependent on the law called vis inertia. Turn an empty pint bottle upside down on a penny placed on any ordinary table not having a tablecover upon it. Challenge one of the company to remove the bottle to a similar position on another coin placed beside the other without touching the bottle. To perform the trick successfully, select coins which are slightly worn, and place them close together. Whilst the left hand exerts a slight lateral pressure on the uncovered coin, strike the table near the bottle smartly with the closed fist. There is always sufficient elasticity in a table to yield slightly to the blow, and before the bottle has time to respond to the downward motion of the table, the left hand coin is pushed a little towards the right. The blow, which should never be so violent as to upset the equilibrium of the bottle, must be repeated until the two coins have changed their relative position.



A LIVELY PENNY.

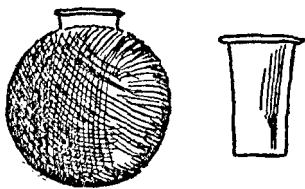
In the right hand take a lamp shade, and with the other throw into it a penny revolving on its edge. The coin may be kept in motion by slightly tilting the shade from side to side, and it will be observed that the faster the penny revolves the higher it ascends on the shade, and vice versa. The trick requires a good deal of practice, which its mastery well repays.



A SIXPENCE IN A BALL OF WOOL.

A sixpence is borrowed from the company, carefully marked, so that it may be known again, and is given into the hands of a boy to hold. The conjurer now brings out a large ball of common or fancy coloured wool. He places this in a crystal goblet or other transparent article, and takes the end of the wool from the goblet and gives it to some young lady to hold. He now tells the audience that it is his intention to pass the sixpence from his hand into the centre of the ball of wool without any one seeing it going in. Taking the sixpence from the boy in his right hand, he places it in the left hand (apparently), and throwing it towards the goblet cries "Pass." He then desires the young lady to pull out the wool as quickly as possible, and when the ball is completely unwound the sixpence will be heard to jingle clearly in the goblet, and on its being lifted therefrom by one of the audience it will be found to be the identical sixpence which was marked.

The method of performing this trick is very simple, but very ingenious. A piece of tin is made like the illustration shown. It is turned over at the top, and is of sufficient width at the bottom to allow a sixpence to pass through it easily. Take this tin-flattened filler, as it may be called, and proceed to roll up a ball of wool round it, leaving the mouth of it always free. When this has been done you have a large ball of wool with a tin filler in the centre of it. This ball is now ready for the trick, and is

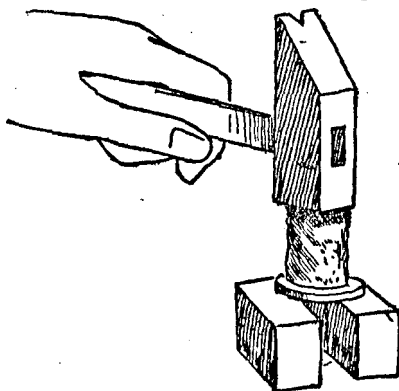


hid from view. The borrowed sixpence is now given to the boy to hold; but in doing this the sixpence is changed; and while you still retain the marked one in your hand you have given the boy a duplicate one to hold. Desire the boy to hold the sixpence up, firmly closed in his hand, which he does without ever thinking of looking at it. You now proceed towards the table where your ball of wool is lying, drop the sixpence into the filler, slip out the tin (which comes away easily), give the ball a squeeze in the hand, and the hole in which the tin filler was placed is closed up with the soft wool. You now hold up the ball before the audience, and apparently it has not been tampered with in any way. You now drop it into the crystal goblet, take out the end of it to a lady or boy to unwind, take the sixpence, which the boy holds, in your right hand, pass

it apparently into your left, but conceal it in the right; throw it from you towards the ball, and cry "Pass," and the trick is done.

TO DRIVE A NEEDLE THROUGH A HALFPENNY.

Scientifically even, this seems an utter impossibility, for who would imagine that such a thin and bending instrument as a needle could be driven through a hard piece of copper? But in reality, steel is a much harder metal than copper, so that if the needle could be adequately supported all round it would be quite possible to perform the trick. An easy method of doing that is provided by passing the needle into a cork, so that the point just projects through the



end. With a pair of pliers cut off the upper portion which protrudes at the other end. Now arrange the coin and the needle as shown in the sketch, supporting the edges of the coin on blocks of wood of the same height, and placing the cork with the embedded needle on the top of it. Then hold the cork with one hand, apply a few vigorous blows to the upper end of the cork, and in a short time the point of the needle will make its appearance on the other side of the coin, having left a beautiful, clear hole.

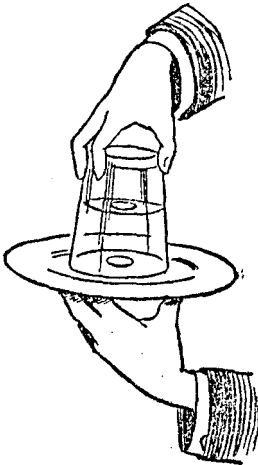
THE DISAPPEARING PENNIES.

The conjurer sits at the side of an ordinary table, with his legs under the mahogany. Placing two pennies on the table he tells his audience (who must be before him) that he means to pass the penny through the table. With the fingers of the right hand he pulls the right hand penny towards him as if in the act of lifting it, but in doing so he jerks it over the edge of the table, where it falls upon his knees, but closing his hand as if he had it in his fist, he holds up the right hand with the penny apparently inside of it. He now lifts the other penny, which is still lying on the table, with the left hand, places the left hand in below the table, and in doing so lifts the penny which is still lying upon his knees, and quietly puts it into the left hand,

not allowing it to clink upon the other. Now holding up the right hand he brings it down smartly upon the table and cries "Pass," at the same time opening up the hand and letting the palm lie flat upon the table. With the word "Pass" he allows the two pennies to clink together in his left hand, when the sound makes it appear as if the penny had actually passed through the table. He then draws out the left hand, and, raising it above the table, allows the two coins to fall from it upon the table. This, if well done, is really an effective little trick for any parlour company. If the conjurer can secretly spread a handkerchief upon his knees before beginning this trick, there will be less chance of the pennies slipping to the floor and discovering him.

EASY WAY TO MAKE MONEY.

One need not be an alchemist to make money, as the following trick will show.



First pour clear water into a glass until it is half full; then throw a bright piece of money into the water and cover the glass with a plate. If the glass is now turned around rapidly, the piece of money will be seen gleaming on the plate, and a second piece will be seen swimming on the surface of the water.

It is refraction of the rays of light which causes this curious illusion, for, the moment the glass is restored to its original position and the water ceases to move, the second piece of money disappears.

THE OBEDIENT SIXPENCE.

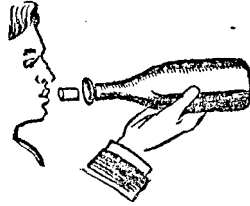
Invert a tumbler and support the edges on two pennies with a sixpence between them, but not touching. Ask how the sixpence can be got from under the tumbler without touching either it or the pennies. Scratch the tablecloth with the finger nail, and it will be observed that the sixpence immediately responds by coming towards you, and in time from under the glass.

TRICKS WITH CORKS.

No one should experience much difficulty in procuring a few corks, and we shall now proceed to describe a number of tricks with these articles.

AN OBSTINATE CORK.

Take a bottle with a somewhat wide neck, and a cork which would fit a much smaller bottle. Hold the bottle horizontally, and placing the cork just inside the neck, try to blow it inside the bottle—a thing which at first sight seems very simple. Instead, however, of going into the bottle, the cork insists on coming out, and the harder you blow the more vigorously does it fly out of the neck.



A DELICATE LIFTING FEAT.

Place two corks on the table parallel to and touching each other. Now endeavour to lift them off the table between the first and second fingers of the right hand, keeping the fingers quite straight. This can be done with care. Probably the easiest way to do it is to force the furthest off ends apart, so that the outer sides of the corks lie along the inside of the fingers, producing more friction, which tends to prevent the corks from springing upwards or outwards.

A DIFFICULT LIFTING FEAT.

Place a cork upright on the floor against the outside of the right toe, and try to lift it with the left hand, which must pass round the right leg from the front. This is very difficult to accomplish. The secret of success is in making sure that the left elbow is placed well beyond the right knee before putting the hand through between the legs. The feet must be kept as close together as possible, touching, in fact, at the toes.

A CLEVER SELL.

Hold a cork in each hand between the thumb and first finger, with the corks pressed well to the roots of the thumbs. The trick is to take the opposite corks between the points of first fingers and thumbs longitudinally, and place them on the table. It is done in the following manner:—Hold the back of the left hand upwards, and the back of the right away from you. In this position place the first finger of left hand on the top of the cork in right hand, and the thumb on the other end, but instead of repeating this with the right hand pass the thumb of the right hand through between thumb and finger of left hand, and place it on the opposite end of the cork. Bring the first finger of right hand under the left thumb, taking hold of the other end of the cork. This trick requires diligent practice, otherwise the quirk will be at once detected.

THE FOUR CORKS.

This is a modification of the well-known thimble-riggers' trick to be seen at all race-courses. It is one of the best and simplest magical illusions, and is a trick which may be done on any common table with the audience surrounding you on every side, and yet, if performed with dexterity, will elude the vigilance of even the most sharp-eyed.

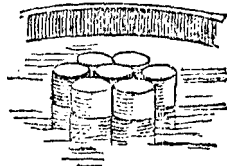
You begin by soliciting the loan of two soft caps. Hard felt hats are not so good for the purpose, because they do not lie flat on the table, but soft felt hats will suit the purpose admirably. Having secured the two hats or caps, you now ask if any one present can let you have two corks. Ordinary corks out of a lemonade or beer bottle are what are wanted. Taking the corks, you proceed to cut them through the middle, thus making four half-corks, and these you place at equal distances in the form of a square on the table, each cork being, if possible, about two feet distant from the other. You ask the company if they are convinced there are only four corks, and that there are no others hid about the caps. Hand the caps round for inspection. Turn up your sleeves to show that no corks are hid there. Having received back the caps, you take them up one in each hand, with the fingers inside and the thumbs outside. You now make some flourishes with the caps, talking all the time, telling your audience you are going to show them the thimble-riggers' trick on a large scale, using corks instead of peas. Then, flourishing the caps, you take the right-hand one and place it down dramatically on the nearest right-hand cork without letting go the cap. No sooner has the cap touched the table than it is raised again, and the left-hand cap, with a similar flourish, is placed on the left-hand nearest cork. The moment this cap has been placed, the right-hand cap is now being placed over the top right-hand cork, and the cork underneath this cap is quickly caught up between the middle and third finger of the hand. The hand is pulled out with a flourish, which prevents the cork being seen; and, bringing it over quickly to the left-hand cap, you now, with both hands, place it with great formality over the top left-hand cork, at the same time letting go the cork which is between the fingers.

The whole secret of this excellent sleight-of-hand trick consists in doing it with great dexterity and neatness, and no amount of pains should be spared in accomplishing this. You have now two caps placed over apparently two corks, and there are two corks before you, which are all the audience see. You now place the palm of the right hand over the right-hand cork, strike the back of the hand smartly with the left hand, and cry, "Presto, fly!" Then, contracting the

hand, you catch the cork up neatly in the palm, keeping it concealed there, and lift with a flourish the left-hand cap, when, lo and behold! two corks are discovered there. You have lifted the cap with the fingers and thumbs of each hand; but now, in placing it down again, you bring the fingers inside, so that the cork in the palm of the hand is brought under the cap, and in replacing the cap again the cork is dropped gently inside and the hands withdrawn. In the same way you place the right hand over the remaining cork, strike the back of the hand as before, command the cork to fly beneath the cap. You raise the hand, when lo! it is gone, but, of course, it is still in the palm, and lifting up the left-hand cap, three corks are found there, and the cap is replaced in the same manner as before, dropping at the same time the fourth cork, which has been in the palm of the hand. The audience, of course, have been under the impression that the right-hand cap has been all along covering a cork. You now declare you are about to proceed to the most wonderful part of the trick, and to make the cork beneath the right-hand cap vanish beneath the left-hand cap without any one seeing it flying and without your touching the cap. Command the cork then to fly, and ask any one of the audience who chooses to lift the cap. On doing so nothing is discovered beneath. Request the same person gently to raise the left-hand cap, and on his doing so the whole four corks will be discovered safely stowed beneath.

THE COHESIVE CORKS.

Take a bowl of water and seven ordinary corks. How may these corks be made to float upright in the water? Of course, every one knows that a cork is deeper than it is thick, and always topples over on to its side when placed upright in water; but if a number of corks be placed together in the water the case is different. Place the corks together in a bundle, dip them overhead in the water, and bring them to the surface again. They will now act as if they formed a compact mass, broader than it is deep, and will float across the surface of the water.



A LAUGHABLE FEAT.

Stick an open penknife between the door and the lintel (this will not injure the wood-work), about the height of the shoulder, and balance a cork on the handle. From a distance of two or three yards walk towards the cork, keeping one eye closed, and try to knock off the cork with the first finger outstretched. Only one-eyed people are able correctly to estimate the exact distance when to strike.

EATING CORKS.

Have several corks on the table. Take one between the first and fourth fingers of right hand, second and third fingers over it. Convey the cork towards the mouth, but in doing so bend the finger, when from the convenient position of the cork it will be readily palmed. Pretend to put it into the mouth, and at the same time force out the cheek with the tongue, make grimaces, and pretend to swallow the cork; repeat with other corks, quietly dropping the corks on the floor each time.

CORKS EASILY DRAWN.

If you want to amuse friends at an evening party, tell them that you can draw a cork out of any bottle without a corkscrew. Of course they will laugh; but very soon it will be your turn to laugh. Take a piece of sealing wax and hold one end of it over

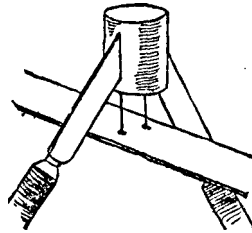


a lamp or gas jet until it becomes soft; then let some drops of the wax fall on the cork in the bottle. As soon as the cork is covered with wax, you must press the piece which you hold in your hand against the cork, and you must hold it there until the wax is quite dry. Then it will be easy for you to draw out the cork by using the stick of wax which adheres to it in the same manner as you would use a screw. No matter how firmly fixed the cork may be, it will almost immediately yield to the pressure. You must, however, take care not to wrench the stick of wax away from it while you are drawing it out, and you must also see that the cork is perfectly dry before you pour any wax on it.

Good and interesting fiction is never out of place. If you want romances of sterling value read "Aunt Kate's Penny Stories."

AN ACROBATIC CORK.

Of itself, a cork is a helpless enough object, but provide it with a pair of legs, in



the shape of two pins stuck into one end, and with arms, consisting of two knives of equal weight, stuck into its body, one on each side, and it is ready for action and fun.

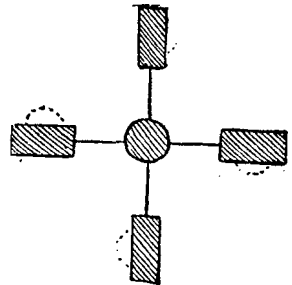
The performing cork, however, requires a specially adapted platform on which to appear. It must be narrow, in order to give the long and heavy arms room to play, and it must be sloping, for a cork—like a boy or girl—can walk more easily downhill than on level ground. For this purpose a flat ruler, supported at the ends by blocks of different heights, will answer admirably. Setting the cork upon its legs on the ruler, give it a rocking movement. The weight of the apparatus falling alternately upon each leg, the cork waddles along its platform somewhat after the style of a man on wooden legs.

A SIMPLE FEAT.

Place two corks upright on the table, and close together, and then challenge any one to lift them separately with the arms outstretched. This is very simple, and will cause a laugh when performed. To do it you simply pick one up, turn the body as on a pivot, and pick up the second cork.

CORK AND CAMPHOR TRICK.

A very pretty and amusing trick may be performed with some pieces of cork and a few bits of camphor. Cut the cork into four pieces shaped as shown in the illustration, and one round like the centre piece.



Now join them with needles as in the illustration. Then to the side of each oblong piece fasten a bit of camphor with sealing wax, as the dotted lines show in the illustration. Now cut out two paper figures of a lady and gentleman in the act of dancing. Fasten the figures to the centre of the disk, and place the cork in a basin of water. The figures will at once begin to revolve, and if the apparatus is well made they will continue waltzing incessantly for several days.

CORK MOUSE.

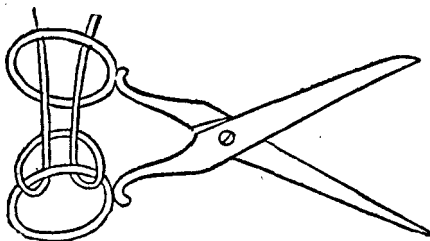
Cut a cork to resemble a mouse, and burn it a little to make it black. Two little pieces of black woollen cloth stuck in the head will represent the ears, and about two inches of narrow black tape, or boot lace, for the tail. To give this animal a life-like motion, attach about nine inches of black cotton to the breast of the mouse with a black pin. A pin at the other end of the thread can be readily attached to the bottom of the waistcoat. When introducing the trick have the mouse in the left hand, and stroke it with the right; now, push the left hand from you, when the mouse will appear to run towards you; follow this up with the right and left hand alternately. See that the underside is flattened to prevent it rolling over, and few of the little ones of your audience will know but that they are looking at a live mouse.

STRING TRICKS.

Many mystifying feats may be performed with a piece of ordinary string or cord. The following are a few of the more interesting of these:—

THE BOUND SCISSORS.

Double a piece of string, and thread the ends through the eyes of the scissors, as in the accompanying figure. Take hold of the loose ends, and ask some one to liberate the scissors. This can be done as follows:—



Draw the loop upwards and thread it through the other eye, then over both eyes and points, and the scissors will be free.

THE ENDLESS THREAD.

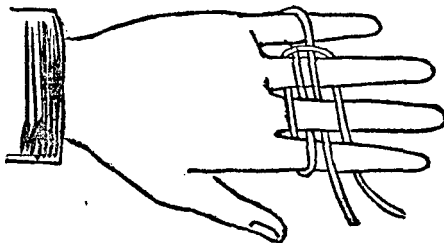
You must have often observed that when you see a piece of thread or wool upon another person's coat you feel an irresistible inclination to pick it off. Taking advantage of this little weakness—shall we call it—in human nature, play off upon your friends the following amusing trick. Place a reel of white thread in the inside pocket of your coat, and by means of a needle bring the loose end through the coat, leaving about a couple of inches hanging upon the outside. You will not be many minutes older before you meet somebody who wishes to pick off the conspicuous white object, and his surprise at finding it endless will well repay you for the little trouble you expended upon the trick.

STITCHING WITH KNOTTED THREAD

The use of a thimble when performing this trick is imperative, as it conceals a few turns of thread round the finger, the end hanging down a foot or so. Gather up this loose end in a ball between the finger and thumb. Holding the thread in this way, take another similar piece off the reel, and thread the needle with it. In pretending to pull the end through the eye, straighten out the piece already concealed between the thumb and finger instead. Ask some one to tie a knot on one end of the thread, of course giving this end to be knotted. You can now stitch away as easily as if no knot had been there, pulling the thread quite through the cloth each time.

CUTTING THROUGH THE FINGERS (No. 1).

Double a piece of string, and hold it in right hand, leaving a loop, say, three inches



behind first finger, which must point upwards through the loop. Put the loop over first finger of left hand, turn the right hand downwards, put new-formed loops over second finger of left hand, again upwards, next loop over third finger, downwards; and loop over fourth finger, again upwards; and loop over third finger, going behind the fourth finger; and repeat same movements and loops over the other two fingers. The strings should now appear on the back of left hand, as in the figure. Slip the loop off the fourth finger, draw the two loose ends, and the string will come off, even although the points of the fingers are resting on the table or walls.

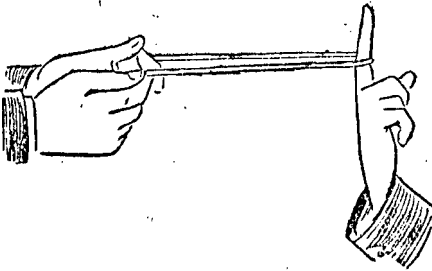
CUTTING THROUGH THE FINGERS (No. 2).

Tie two ends of a string together to make a loop about fourteen inches. Take the loop at the knot inside the right hand, and the other end of the loop inside the left hand. Bring the end in right hand to the left palm between first and second and third and fourth fingers. Turn the fingers of right hand upwards, and carry the strings round the outside of left thumb. Turn right hand down, and put a loop over fourth finger, again upwards, and last loop over first finger of left hand. Take both loops off the thumb, and put them between second and third fingers of left hand. Pull the string lying across left palm, and all the cords will pass between the fingers,

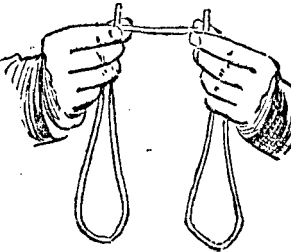
THE CUT TAPE.

This is a trick which requires a considerable amount of practice to be able to do it neatly and with dexterity, but it is most effective when well done, and never fails to create a considerable amount of astonishment. The method of performing it, however, is not very easily described, but with the aid of an illustration we shall endeavour to make it as lucid as possible.

Take a piece of ordinary tape—say, half an inch wide and about three yards in length—and show it to the company that it is without flaw or join of any kind. You intend to show them that your powers of joining are not confined to a piece of string, as in one of the tricks described, but that they may be applied to woven materials, such as a piece of tape. You have two boys to assist you. Desire one of the boys to hold up his finger. You throw the tape over his finger, and, grasping it by the two ends with the forefinger and thumb of each hand, you draw it down straight till the two ends meet. The centre of the tape is now over the boy's finger, thus—



Holding up the two ends of the tape, with about an inch or so of each end projecting above the finger and thumb of each hand, you move towards the boy's finger, still holding the tape; then grasping the tape at the point where it is doubled over the boy's finger, you lift it up and carry it away, and hold it up before the audience like this. Now, it is at this point—in taking it off the boy's finger and turning round towards the audience—that dexterity is required in manipulating the tape. The tape is grasped with both hands, but with the left hand care must be taken to see that the point held between the finger and thumb is placed at the back of the tape which hangs down. Now, if any one were to cut through



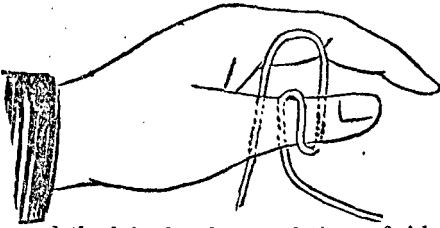
the piece of tape which stretches between the two thumbs, he would cut the tape into two separate parts, and, of course, you desire to make the audience believe that this is actually done; but in turning round to face the audience you, with a quick movement, drop the tape which stretches across, and catch up with the third finger of the right hand the tape which hangs from the left hand, stretching it out as before, so that to all appearance the tape looks the same. This movement must be practised until considerable dexterity is acquired. The long loose piece of tape hanging down prevents the audience from perceiving that any change has been effected. You now desire one of the boys to cut through the tape. He does so, and two ends drop down in consequence, while two ends apparently are held up between the finger and thumb of the left hand. You now take these two ends and tie them together. This makes the audience believe that it is actually the two loose ends of the tape that are tied, whereas it is only a small piece of tape, two inches in length, which is tied over the centre of the entire length of the tape, although this fact is concealed by the left hand. With some flourishes you ignite the two tied ends with a match or at a candle; then, impressing upon the audience the importance of watching for the fusible moment, you suddenly, with finger and thumb, rub out the light, and place the burnt part in your right hand. Lifting up one end of the tape with your left hand, you hand it to one of the boys to hold; then, grasping the centre of the tape at the knot in the left hand, you dexterously slide the burnt knot along with the right hand, and, holding the end of the tape out to the other boy, you at the same moment slip off the burnt portion and conceal it about your person. The left hand still grasps what is believed to be the burnt part of the tape. You now take up your magic rod in the right hand, strike the left hand, utter some cabalistic words, desire the tape to become whole, and when you open your left hand, behold the tape is found perfect and without a flaw or damage of any kind, and may now be handed round for the inspection of the curious. If once this trick is thoroughly learned and cleverly done, it will reward the wizard for the trouble taken in acquiring it. It is a feat requiring dexterity and neatness in the manipulation.

THE MOTHER'S GUIDE

tells all about how to rear healthy babies. It contains much other useful information, and anyone who follows its advice will have healthy families. Sold by all Newsagents; Price ONE PENNY.

THREADING THE NEEDLE.

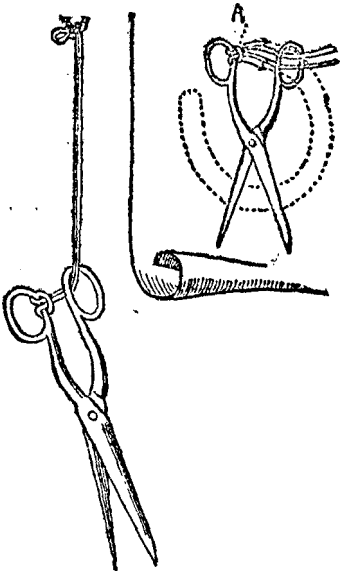
Take a yard of string in the middle with the left hand closed, wind the upper end



round the left thumb several times, finishing with a loop, as shown in the figure—that is, with the loose side of the loop next the root of the thumb. (If the loop is not as it were reversed, the stitches will appear as if made from the back of the loop, and detection will follow). Now, take the other end of the string between thumb and first finger of right hand as if about to thread a needle. Make appear to thread this end quickly through the loop; at same time slip the string over the end of the left thumb. Repeat as often as there are turns on the thumb.

TRICKS WITH SCISSORS.

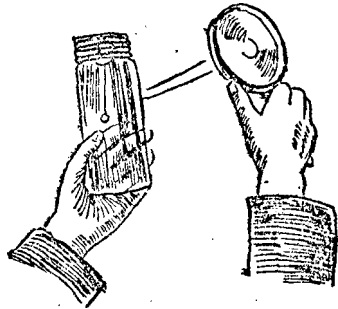
Can you fasten a pair of scissors to a wall with a piece of cord and then remove them without breaking or cutting the cord? It seems impossible, yet it can easily be done. First the cord is to be fastened in a loop to the left handle of the scissors and then the double cord is to be drawn through the right handle and secured to a nail at some distance. Next the noose at the left handle



must be drawn through the other handle and so onwards until it is between the two blades. As soon as this is done the cord can easily be loosened from the scissors.

THE MAGIC THREAD.

If anybody should tell you that you can cut in two without touching it, a thread hanging from the cork inside a sealed bottle, you would be likely to think that he was fooling you. But it may be easily done, and in such a way as completely to mystify the spectators. Get a clear glass bottle—a pickle bottle will do—and to the under part of the cork attach a bent pin. To the pin tie a piece of thread long enough to reach three-fourths of the way down the inside of the bottle, and to the lower end of the thread fasten any small object, say a shoe button, to make the thread hang taut. Insert the cork and seal it with wax, and say



to the company that you are going to cut the thread in two without opening the bottle—in fact, without touching the thread. To accomplish this, you need a reading glass, or sun glass, and access to a window where the sun is shining clear and bright. The feat is most mystifying if you perform this part in private. You go to the window, hold up your sun glass so that you can focus the rays from the glass directly on the thread through the side of the bottle, and in a short time the heat from the focused rays will burn the thread in two pieces, the end with the button attached falling to the bottom of the bottle. Then go back to the company with the bottle, and they will see that the cork has not been moved, and yet the thread is cut.

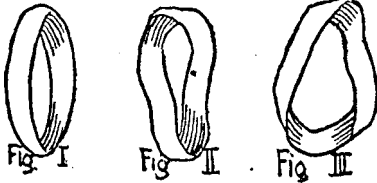
THE INDESTRUCTIBLE STRING.

To keep a ring suspended after the thread is consumed by fire, have a yard of cotton in readiness which has been steeped in water saturated with salt and then dried. A ring may be suspended by this from the lustre or a bracket and the thread burned without the ring falling to the ground. Remark that most people will no doubt have seen this experiment before, and that you will now cut a similar thread with a pair of scissors, when a much heavier weight will still remain suspended. When you are challenged to do this, place the first finger of the right hand behind the hanging thread, throw the point of the finger round the upper part, and then pull the lower part

through the loop thus formed, and draw tight. Now deliberately cut the loop with a pair of scissors, when the "sell" will be at once apparent, and cause great laughter.

CURIOUS PAPER RINGS.

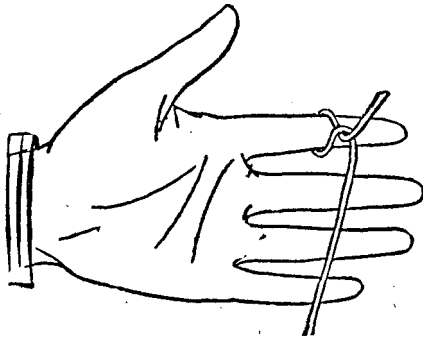
From an old newspaper cut three strips, about eighteen inches long and three inches wide. The ends of the first gum together, so as to form a simple band (Fig. 1). The second strip twist once (Fig. 2), and the third twice (Fig. 3), before the ends are joined.



Now, if these three bands are carefully cut with a pair of scissors through the middle the whole of their length, the result is somewhat surprising. Fig. 1, of course, produces two separate bands, the same length and half as wide. But Fig. 2 when cut forms two bands, linked in each other, like the links of a chain; while Fig. 3, similarly divided, gives one long band half the width but twice as long as Fig. 1.

TO CUT A STRONG CORD WITHOUT KNIFE OR SCISSORS.

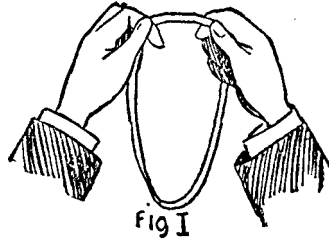
Most people have no doubt wondered at the ease with which shopmen cut strings



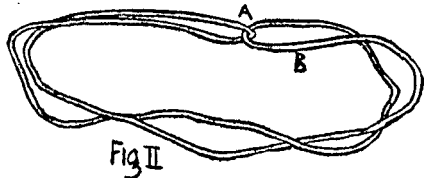
lapped round the fingers. It is, however, a very simple process when the trick is known. Practise it, following these instructions, and success is assured. Tie a cord to the door knob, and hold the other end with the right hand. Put first finger of left hand under the string, and make a hitch at first joint of finger, as shown in the accompanying figure. Press the thumb nail firmly under the crossing, jerk the right hand away, and the string will snap clean across where it is held.

SPLICING STRING.

The art of splicing string simply with the tongue may be explained as follows:—Produce a piece of thin string about two yards long. Examine this critically, and then tie the two ends firmly together. This "circle" double again, and hold it out as shown in Fig. 1. Then request some one to cut through both strings at the point between your hands.



This being done, give two of the four "ends" resulting from the cut to two of the audience, and place the other two in your mouth. Severe facial contortions follow; the string is rolled about with the tongue; and on being removed from the mouth it will be found the ends have disappeared, and that the two persons assisting you each hold one end of a straight piece of string without knot or splice! This is "how it is done." After the ends of the string were securely tied, it was apparently doubled into two circles, but in reality it was arranged as shown in Fig. 2.



The join at A—just like two links of a chain—was hidden by the thumb of one hand; the strings were cut at B; and the loose piece remaining was removed by the tongue and kept in the mouth till it could be rejected unseen.

THE DUNDEE ADVERTISER,

Only PENNY PAPER in a great district, embracing the seat of the Jute and Linen Trades; Shipbuilding and Iron Industries; Preserve and Biscuit Works of world-wide fame; important Agricultural Markets; St Andrews University and University College, Dundee; large Finance and Investment Companies; and many other interests.

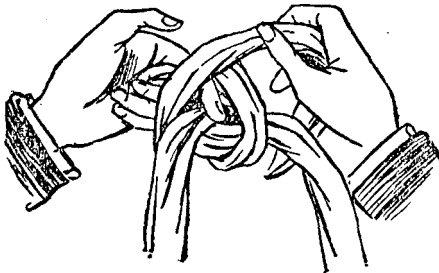
ALL THE WORLD'S NEWS,
PRIVATE TELEGRAPH WIRE TO LONDON.

TRICKS WITH HANDKERCHIEFS.

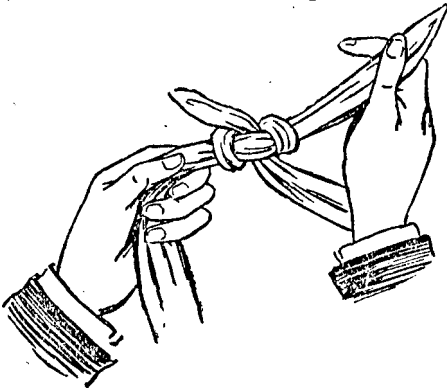
By means of a handkerchief one may perform a few interesting tricks in the way of tying of magical knots. A silk handkerchief is best, but a large-sized white linen or cotton handkerchief will answer all purposes. The first trick which we shall explain, and which is called

THE REEFING KNOT

is a more difficult trick to perform well than some of those herein described, but it is well worth a little study. In any programme it might well follow the untyable knot trick, mentioned on page 18. Taking the handkerchief with which you have shown that



trick, you take the ends of it as therein described, and slowly and deliberately place the left hand end on the top of the right-hand end, and bring it through below, catching the two ends, and holding them up. Now twist the ends of the handkerchief once round from right to left, and bring the end which is still in the right hand over the top and through below the left-hand portion. If the two ends are now pulled, a knot will be formed resembling the sailors' reefing knot. If the end held in the right hand and the lower left-hand portion of the handkerchief are pulled, it will



be observed that this portion forms a straight line through the knot, as in the illustration, and will slip out if pulled. It is in reality a simple knot tied round about the left-hand end. If the knot in this way is given to any one of the audience to ex-

amine, he will very soon pull it out for you; but by pulling the right-hand end the knot is drawn so tight that even the audience may be allowed to examine it, and will find nothing wrong with it as a knot. To bring it back into a slipping form, the left-hand portion of the handkerchief on either side of the knot should be tightly pulled. To untie this knot with one hand, you take this left-hand portion and put it into the right hand, allowing the point of the thumb and forefinger to go as close up to the knot as possible. By holding it there firmly the other three fingers of the hand may be worked in such a manner as to draw out the end; and to conceal this manœuvre the loose portion of the handkerchief is thrown over the knot, which is all the while being silently worked out with the fingers. When the end has been carefully withdrawn, you ask some one to blow upon the handkerchief. Then throwing the handkerchief out you show that the ends have become untied, and that the handkerchief is absolutely without a knot of any kind. This is one of the best tricks that can be accomplished with handkerchiefs, but it requires a good deal of practice to do it with effect and dexterity. The next trick is

THE MAGICAL KNOT.

This is said to have been done by Dobbler before the Czar of Russia, and to have so pleased that autocrat that he presented the conjurer with a gold watch. Take the ends of the handkerchief up as before, twirl the handkerchief round until the loose ends are taken up, then take the handkerchief by the middle and smooth it into the form of a narrow bandage. With your audience in front of you, you now take the handkerchief and place it round the right leg immediately below the knee, bring it round again in front, and tie it there with two knots. You now tell your audience that you are going to draw the handkerchief through your leg. Catching it by the knot in front, you pull it out from you smartly, when it is seen tied as before, having passed apparently through the leg. The trick consists in doubling it over the thumb of the right hand while passing it round the back of the leg. The left hand portion is now passed over this double portion, and, instead of being brought round, is simply brought back again and tied in front. This may be understood by an examination of the illustration,



THE LOVER'S KNOT.

The handkerchief trick known as the lover's knot can scarcely be called a knot, but rather a ball into which the handkerchief is carefully worked, although it may, unless the trick is known, become as destructive to the handkerchief as if it had



been tied into any kind of knot whatever. The method of rolling it up is as follows:—Lay the handkerchief flat on the table and fold the corners to the centre, this will still leave it square; again fold the corners as before, repeating the operation again and again, taking care that no part is unequally folded. It should then be a loose ball, rather flat, and open at the top, as in Fig. 1. Hold the ball in the left hand during this the more tedious part of the process, and with the thumb and fingers of the right hand take one thickness of the cloth only and pull it inwards towards the left wrist, turn the ball a little in an outward direction, and again pull the outer fold inwards. After going round the ball twice in the same manner, it will hold well together, and the opening will be much contracted. Rub the ball a little between the hands, and repeat the winding process until it is utterly impossible to pull out one fold without tearing the handkerchief. The only method of opening is to unwind the ball in the contrary direction, which can be accomplished in about half a minute. The writer has frequently wound up a borrowed handkerchief in three minutes, and defied any one not in the secret to undo it in the same time without tearing it. The uninitiated seldom think of unwinding the ball.

THE UNTYABLE HANDKERCHIEF.

Take the handkerchief up by its two opposite corners and twirl it round two or three times till its hanging ends are wound up. Then, taking the two free ends between the forefinger and thumb of each hand. Leaving about four inches of the ends hanging loose, you take the right hand end and place it over the left hand end of the handkerchief, crossing it between the extended forefinger and the closed middle finger. The moment this is done shut the forefinger, which closes upon the right hand end. Keeping it closed, you take up the left hand corner, place it through below and bring it out at the other side, then you will find that the forefinger drags with it what was the right hand end of the handkerchief and that no knot will be tied. With a little practice this may be easily done. It forms a really most effective and simple little trick.

CUT AND BURNED HANDKERCHIEF RESTORED.

For this trick you require some previous preparation. Obtain a small piece of white calico—a portion of an old white handkerchief is best—about six inches square. Into the centre of this piece place a halfpenny. Catch up the ends and twist them round about the halfpenny, rolling all up compactly and pressing it into the palm of the left hand, where it must be held concealed. It may remain in the vest pocket till the moment it is required. Supposing the coin thus prepared is concealed in the left hand, you take your magic rod in your right, and, going before the audience, desire any lady to lend you a white handkerchief, and some gentleman to lend you a halfpenny, marked carefully, so that it may be known again. You ask the lady if she will know her handkerchief again. Of course, she will. Then, shaking it out by the two corners to show that there is nothing concealed about it, you throw it over your left hand, and place the marked coin in the centre of the handkerchief. Catching the coin from the outside, you allow the ends to fall down; then, placing the coin in the left hand, you dexterously thrust up between the finger and thumb of that hand the halfpenny in the small piece of white rag, and strike it on some hard object, to show that this is actually the coin—the thing being smartly done, of course no one will have a suspicion that this is not the genuine halfpenny and handkerchief which you have in view. Getting the loan of a pocket-knife, you desire one of your juveniles to cut the handkerchief through close by the halfpenny. The juvenile proceeds with great readiness to fulfil this request, and while he is cutting you are speaking to the audience, and apparently not paying attention to what he is doing.

When he has cut completely through, and severed the halfpenny with a portion of the handkerchief from the remainder, you express great consternation, and declare you desired him simply to mark the handkerchief and not to cut it through. Throwing down the halfpenny on the table, you take up the piece which has been cut, and exhibit it to view, causing great fun to the spectators, and perhaps a shade of vexation to the lady who owns the handkerchief. Apologising gracefully, you declare that the mistake was quite unintentional on your part, but you will do your best to remedy the evil, and see if the fire, which was so efficacious in the case of restoring the tape in the trick already described, will not be equally so in regard to this handkerchief.

Setting fire then to the portion in your

right hand and the portion in your left hand you allow both to burn until near your fingers, when you press both parts together, and, by a dexterous movement, conceal the burnt portions in the palm of your right hand. If you can get them into your pocket quickly, so much the better. You now roll up the handkerchief into a ball. Of course the real marked halfpenny is still in the centre of it, but, rolled up as a ball it is not apparent even to the touch. Place it in the boy's hand, telling him to hold it up in view of the audience, and lifting the halfpenny, which has been cut, apparently, from the handkerchief, and which no one ever suspects not to be the marked one, you take it up in your right hand between the finger and the thumb, and pretending to pass it into the left hand, conceal it in the palm of the right hand by means of what is called the pass. Then, holding up the closed left hand with the coin apparently in it, you throw it towards the boy's hand, and ask him if he did not feel the electric shock from its passage into the handkerchief. Desire the boy now to shake out the handkerchief over the table. In doing so the marked coin will fall from the handkerchief to the amazement of the audience and the burnt handkerchief will be found perfect as before.

THE HANDKERCHIEF AND CANDLE.

One of the best tricks known is that of producing a handkerchief from a lighted candle which has been previously examined. It is accomplished as follows:—The handkerchief is a small silk one, and is concealed at the back of the drawer of an ordinary match-box, which has the drawer half pulled out as if in readiness to get at the matches. The candle is given for examination, and you then place it in a candle-stick on a table, and show your hands empty. Pick up match-box, and take a match from it and light candle. Close the box, which pushes the concealed handkerchief into your hand. You then pretend to pluck handkerchief from flame of candle, and let it expand as you draw your hand back from flame.

The People's Friend

Contains—

Splendid SERIAL and SHORT STORIES.
 BIOGRAPHICAL and other SKETCHES.
 TALES of SCOTTISH LIFE and CHARACTER.
 HOUSEHOLD HELPS and HINTS.
 SCIENTIFIC and USEFUL RECIPES.
 CIVIL SERVICE COLUMN WEEKLY.
 KNITTING and NEEDLEWORK RECIPES.
 COOKERY and MEDICAL RECIPES.
 HINTS on HOME DRESSMAKING.
 ORIGINAL MUSIC, POETRY, and READINGS
 &c. &c.

Price ONE PENNY Weekly.

CARD TRICKS.

With a little study and a pack of cards endless amusement may be secured, as the following tricks will shew.

TO GUESS THE CARDS FIXED ON BY FOUR PERSONS.

Take four cards from the pack, give them to the first person, tell him to fix upon one of them and lay them down. Take other four cards, present them to the second person, ask him to do the same, and so on with the other two persons. You now take up the first person's cards and lay them out singly side by side; upon these place the cards of the other three. Now show each pile to the persons in order, asking each in which pile he finds the cards he has thought of. The rest is easy, for the card thought of by the first person is the first in the pile he indicates; the second person's is the second card in the pile he points to; and so on in rotation with the others.

TO TELL THE NAME OF A CARD THOUGHT OF.

Ask any one to draw seven or eight cards from the pack and think of one of them. As soon as they are returned place them smartly at the bottom of the pack, shuffling the pack at the same time in such a way as not to disturb those placed at the bottom. Then take four or five cards from the top, throw them on the table face upwards, asking if the card thought of is among them. Of course it is not; but while he is looking you slip one of the bottom cards to the top, then lift off five or six more, spread them down in another place, and repeat the query, so doing till he sees his card. You know then what his card is, as it must be the one you brought up to the top. You now gather up the cards in a heap, shuffle them, and proceed to pick out the one he thought of.

FOUND AT THE SECOND GUESS.

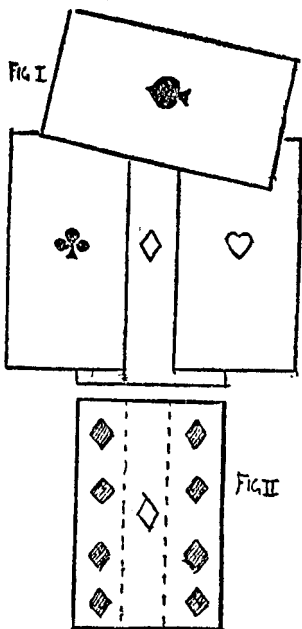
Offer the cards to one of your audience, and let him draw one. Then hold the cards behind your back, and tell him to place his card on the top. Pretend to make a great shuffling, but only turn that card with its back to the others, still keeping it at the top. Then hold up the cards with the faces towards the spectator, and ask him if the bottom card is his. While doing so you inspect his card at your leisure. He, of course, denies it, and you begin shuffling again furiously, and, as you are perfectly acquainted with his card, you let him shuffle as much as he likes, and then, when you get the cards back again, shuffle until his card is at the bottom. Then show him his card in any way you like. A very good way in which to reveal the card is that known as

THE SURPRISE.

After you get the desired card to the bottom of the pack, tell one of the spectators to hold the cards by one corner as tightly as he can. Give them a sharp rap with your finger, not with your hand, and all the cards will be struck out of his hold and fall on the floor, except the bottom card, which will remain between his finger and thumb. It has a rather more dashing effect if you put the chosen card at the top, and strike them upwards, when the whole pack will fly about the room like a cloud of butterflies, only leaving the top card in the person's grasp.

THE WANDERING ACE.

Place four aces on the table, as shown in figure No. 1; shove them together and mix them with the rest of the cards. Then give the cards to somebody to hold. Ask him to look for the four aces, and, to the astonishment of everybody, one ace will be missing, and found in the pocket of the performer. The trick is done in the following way:— You do not place four aces on the table, but only three; the fourth one is the nine of diamonds, covered right and left by two



other aces, so that only the spot in the middle is visible, as shown in figure 2. Everybody will take it to be the ace of diamonds, which you have taken out of the pack before and placed in your pocket.

A CLEVER CONSTABLE.

From a pack of cards take the four knaves and one king (the constable), and quietly place one of the knaves at the bottom or top of the pack. Put the other three, with the king, upon the table. You must now tell the company a story to the following effect. One of a band of three notorious housebreakers made a habit of entering houses by the cellar window (here put one of the three knaves at the bottom of the pack); the second generally entered from the garden (insert the second in the middle of the pack); and the third preferred entering from the roof of the next building (placing the third knave on the top of the pack). A constable being sent in pursuit, followed the track of the third thief (place the king on the top), and after some hunting inside the house (cut the pack), came upon and captured all three burglars. At the bottom of the pack the king and the three knaves will be found together.

TO TELL HOW MANY CARDS A PERSON HAS SHIFTED.

Take all the spot cards from any particular suit—that is to say from the ace up to ten. Place these face downwards in a row, consecutively from one to ten. You then ask any one to remove as many cards as he may choose from the beginning of the line, and to place them in the same order at the rear part of the line, and you will tell him how many have been shifted. The trick is effected in this manner: Suppose the person has shifted three cards; you, in the first place, take up the end card on being called upon, and, on looking at the face of it, you will find that the card has three spots upon it, thereby indicating to you that three cards have been shifted. So far the case seems simple enough, and the person who shifted them will in all probability ask you to try again. You turn your back while he shifts some more cards, and wait till he says he has done so. To find out the cards shifted, you must now remember the number that was previously shifted; this was three. In this instance, suppose that other three had been shifted; you add one to the previous shift, which makes four, and upon taking up the fourth card from the end the card with three spots will be found, thus indicating that three cards have again been lifted. Now, suppose another trial is made, and that four cards have been shifted. You just remember that twice three have been shifted in the previous turns, making six altogether. Add one to this next, and you have the seventh card. Take up the seventh card, and it will be found to contain four spots, indicating thus that four cards have been shifted, and so on. The trick is most bewildering to those not in the secret.

CAUGHT IN FLIGHT.

This is a very striking trick. Ask two persons each to choose and remember a card. Taking them back, place one at the top and the other at the bottom of the pack, which you then take in your right hand, between the fingers and the thumb. Throw the pack into the air, when the two chosen cards, which should have been slightly moistened, will stick to the fingers. With a dexterous movement conceal this fact from the onlookers, and make a dash with the hand among the flying cards as if to catch some of them. You then produce the two cards, to the wonder and astonishment of all.

A CARD AND PENNY TRICK.

Place a penny on an ordinary playing card, and poise the card on the point of the



forefinger of the left hand. Then with a sharp flit of the forefinger and thumb of the right hand, directed against the edge of the card, you may drive away the card and leave the penny balanced upon your forefinger.

TO NAME A CARD WITHOUT ITS BEING SEEN.

First glance at the bottom card of the pack. Suppose it to be the ace of diamonds. Lay out the pack in five or six heaps, noting where the one is laid which contains the ace of diamonds. Ask one of the company to take up the top card of any heap, look at it, and then replace it. You now gather up the heaps apparently by chance, but taking care to put the heap containing the ace upon the card which has been chosen. You then give any person the cards to cut, and on counting them over, the card that follows the ace is the one that has been chosen. If by any chance the two cards have become separated through cutting, the upper card of the pack is the chosen one, and can be picked out at once.

TO SCENT OUT A CARD.

Lay out 16 cards, face upwards, in 4 rows of 4 each, and desire a person to think upon any card he may choose from the 16, and to indicate to you the row in which it is. Suppose the person chooses, say the ace of spades, and that this card is in the 2d row. You now lift up the cards in succession, remembering that the card thought on is in the 2d set of four you lift up. Now turn pack face downwards, and place the cards in 4 heaps of 4 each, giving one to each heap alternately, and each four being so placed that a portion of each card is plainly visible. Now take up one of the heaps, and turning the faces of the cards towards the person who selected the card, show the face of them, and desire him to say if the card selected is in that heap. Suppose he says no; you place the heap down then on the

table, and take up heap number 2. Suppose he declares that his card is not in that heap; you take up the third and repeat the process. "Yes," he says; "I see my card in that heap." You now square the cards in each heap, and take them up in heaps by rotation. Suppose the heap in which the selected card is is the 2d heap lifted, then it will be the third 4 from the top. Now place the cards face downwards in 4 squares of 4 each, giving one to each heap alternately until all the cards are distributed. It will thus be seen that in each of the four squares there is a card from each separate heap, but in placing the third four in their places you just remember what place in the several heaps these four cards have. Now ask the person to name two of the heaps. Suppose he says number one and three, and suppose his card, which you now know, is in one of these heaps, you lift the other two packets and put them aside. Ask him now to name one of the two heaps remaining. He does so, and you lift one of these away. Now ask him to name two cards of the four now lying on the table, and, on his doing so, you lift two of them away, being careful, of course, to allow his own card to remain. Now ask him to name one of the two cards remaining. He does so, and you lift one of them away. Now tell him to lift the only remaining card, and to his astonishment it is the card he has originally selected.

TO CALL ANY CARD IN THE PACK.

Seat yourself at the table, so as to have the whole of the audience as much as possible in front of you, and at some distance. Take the pack of cards as it usually lies, and in passing it under the table or behind you, glance at the card which happens to be exposed; then, pretending to shuffle the cards, place the one you have seen back to back on the other side of the pack, and holding the cards firmly by the edges raise your hand between you and the company, and show the card you have seen, calling out at the same time what it is. While doing so observe which card is facing you (for you have now the whole pack facing you except the one card which is shown to the spectators), pass them under the table again, and transfer the card which you have just seen to the other side of the pack, handling the cards as if shuffling them; again exhibit, and cry out the name of the card turned to the company, taking care to notice the card that faces yourself, which change as before, and so on. By this means you may go over the whole pack, telling each card as it is exposed, without looking at the cards except when they are held up between you and the spectators, and when they are anxiously looking themselves to see whether you are right or not.

BETRAYED BY ITS WEIGHT.

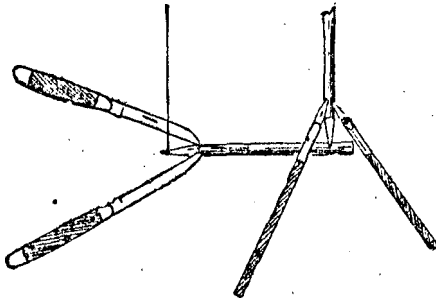
Ask some one to take a card from the pack, and to remember it. Take it again, keeping it face downwards, and poise it in your hand as if weighing it. While doing so make a slight indentation in it with your nail, which you will readily recognise again. Then return the card to the person who picked it, and ask him to insert it in the pack wherever he chooses, and to shuffle the cards. Let him then return the cards to you one by one, and as he does so pretend to weigh each carefully in your hand. When you come to the marked one present it to the company as the one chosen, and as identified by its weight. The mark should not be made too conspicuous.

BALANCING TRICKS.

This last mentioned card trick naturally introduces us to the subject of balancing, and we shall now describe a few tricks in that art.

THE PENCIL AND KNIFE FEAT.

The following is a little trick in balancing which is difficult enough to tax the busy brains of our younger readers. The sketch renders explanation almost unnecessary, but it will be seen that the feat consists in balancing two pencils in mid-air—the one



horizontally, the other vertically. The sharpened extremity of one pencil is inserted into a loop in the end of a piece of thread; the two knives, which are stuck in opposite sides of the pencil, are of equal weight. Two pens are fastened—one on each side—near the point of the second pencil, which is then balanced on the other end of the first pencil. With a little adjustment of knives and pens the whole should be put in equilibrium, and may even be made to rotate.

BALANCING A TUMBLER.

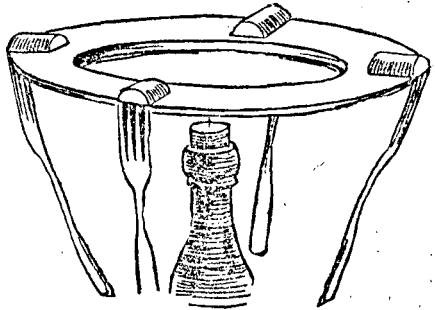
This is scarcely a trick, but rather a feat; however, it causes great fun, and can be conveniently done at any time. Balance a bottle or tumbler containing water on the crown of the head, and then try to pick up a nut, or, more difficult still, a coin off the floor with lips or teeth, and rise again without allowing the bottle to tumble. It must not be touched with the hands.

TRICK IN BALANCING.

One is often asked at an evening party to endeavour to stand with the side of one foot touching the wall, and to hold up the other foot for a few seconds. It is, however, impossible to do so, as that position throws most of the weight of the body beyond the centre of gravity.

THE BALANCED PLATE.

Another trick in balancing is that in which a plate is balanced on the point of a needle. The illustration will afford any explanation that is necessary. Split two corks down the middle, insert a fork near one end of each,

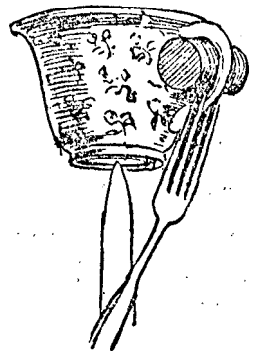


and place them at equal distances round the edge of the plate. The forks should point towards the axis of the plate. Then by a little manipulation and care you should be able to make the plate spin round on the point of a needle inserted in a cork which passes into the neck of a bottle.

A CUP IN DANGER.

A striking trick in balancing is shown in the illustration. The question is how to balance a coffee-cup on the point of a carving-knife. The first difficulty in the way is the scruples of the housekeeper at "lending you a good cup when you're sure to break it." These scruples overcome, however, the trick is simple enough.

Insert in the handle of the cup a cork thick enough to fit pretty tightly. Stick into this a fork, in such a manner that the end of the fork hangs below the cup. You should then be able after a few trials and a little adjustment of the fork to find the centre of gravity of the cup, and to balance it as required and as shown in the sketch.



A BALANCED GLASS.

At a short distance apart upon a table place two bottles of the same size, fitted with corks, the projecting ends of which are cut to resemble pivots. Upon each cork balance a knife, and bring the knives into such a position that they touch at the tips. Then upon the junction place a wine-glass half-filled with water, and after a few trials you should be able to produce a state of equilibrium. By dipping into the glass a coin or button attached to a piece of thread the balancing apparatus may be set into gentle motion.

A BALANCED BOTTLE.
The bottle you see pictured here is half filled with water, and is placed upon a piece of broad tape, which is suspended between two points. The handle end of a soup ladle is inserted in the mouth of the bottle, and the equilibrium of the whole is secured by pouring water gently into a vessel suspended at the other end of a ladle.

**THE
PEOPLE'S JOURNAL**

Scotland's National Weekly,

Why you should read it.

Its Serial Stories are always interesting.
It contains many Prize Competitions.
Its Legal and Draughts Columns are important features.
Its news is always fresh and readable.
Local and District Intelligence receives full attention.
It contains more advertisements than any other weekly paper in Scotland.
The "People's Journal" contains the fullest news, finest stories, most vigorous articles and most entertaining correspondence of all weekly newspapers.

**OF ALL NEWS-AGENTS,
PRICE ONE PENNY.**

TRICKS WITH GLASSES.

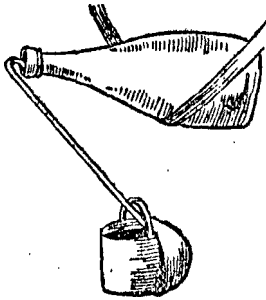
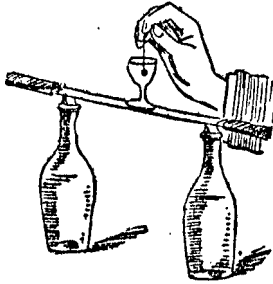
In our section dealing with balancing tricks occasional reference has been made to glasses. Here are quite a number of tricks that may be performed with two glasses of the same size and shape. If these are held lip to lip under water and then withdrawn one above the other it will be found that both remain full. The same thing may be done in another way. Fill the two glasses with water. Cover one of them with a card. Hold the card firmly on, and reversing the glass, place it mouth down on the top of the other glass. Then gently withdraw the card, and if the rims of the glasses are evenly placed one on the top of the other the water will remain in both. A still more interesting trick can be performed in the latter way. This is what is called

WATER CHANGED INTO WINE AND WINE INTO WATER.

Fill two wine glasses of the same size, the one with water, the other with any kind of dark wine. Cover the glass containing the water with a card, invert it, and place it upon the glass filled with wine—as illustrated in the drawing. The two brims of the glasses must fit exactly. Then slightly move the card so that a small opening is left between the two glasses. The water, it will be seen, begins to find its way downwards and the wine, being the lighter, rises, taking the place of the water. After about an hour's time the liquids will have completely changed places, the effect being as if the water had been changed to wine, and the wine to water.

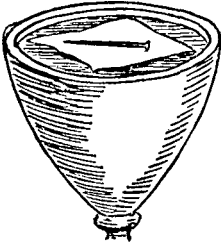
WATER ABOVE ALE.

Ale, unlike wine, is heavier than water, and this may be shown by the following simple experiment. This is a trick something like the "wine and water" one already described, and serves the purpose of adding a little variety to these liquor feats. Fill a tumbler half-full of ale. Place a silk handkerchief over the mouth of the glass, and press it softly down until it touches the surface of the ale. Gently pour in water till the glass is full, then draw up the handkerchief, and the water will be seen forming a distinct layer above the ale, and quite unmixed with it.



FLOATING A PIN IN WATER.

It will not readily be supposed that a needle or brass pin can be made to float on water—steel and brass having a much greater specific gravity than water. If, however, the needle or pin be carefully dried, it may, if dexterously handled, be



so laid upon the surface of a basin or dish of water that no trace of moisture finds its way to the upper surface of the instrument. The water will simply take a convex shape on each side of the pin, which it will support as in a cradle. The placing of the pin upon the water is, however, by no means an easy process. One way of accomplishing it is by placing the pin upon a small piece of paper, which is gradually allowed to drop on to the water, soak, and sink, leaving the pin afloat.

A ONE-HANDED TUMBLER TRICK.

Fill a tumbler with water, and turn a plate upside down on the top of it. The tumbler may or may not have a stem, but the safest and most effective trick is when there is a stem to the tumbler. Holding the tumbler and plate firmly together, turn the tumbler upside down, which can be done without spilling the water. Now, challenge any one to take the plate with tumbler in one hand, and with the other hand behind his back to drink the water without spilling any of it. The secret is in using the teeth when the tumbler has a stem. Reach the head over the tumbler, and take hold of the off side of the base firmly with the teeth, and whilst pressing the plate on the tumbler, raise the head, and turn both plate and tumbler the other way up. You can lift the plate off with the right hand, and set it on the table, and with the same hand take the tumbler out of the mouth. You should practise without the water to begin with, if you wish to avoid a shower bath. With an ordinary tumbler the trick is similar, only the base of the tumbler is pressed against the forehead.

ANOTHER TUMBLER TRICK.

Dry the tumbler thoroughly, and very carefully fill it brimful with water, so as not to wet the top edge. Try how many shillings or other small coins can be put into it afterwards without making the water flow over. You are safe to challenge any one to guess anything like the correct number, as most people will imagine that one coin would cause the water to run over. This is a mistake, a great many can be put in provided they are dropped carefully from the surface into the centre of the glass.

LIQUOR UNDER A HAT.

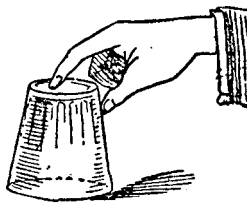
Place a glass of any liquor upon the table and cover it with a hat. You may then inform the company that you will drink the liquor without touching the hat. Get underneath the table, make three mysterious taps upon it, give a gurgle as if swallowing a liquid, and state that you have fulfilled your promise. The company are only too eager to test the truth of your statement; some one removes the hat; you seize the glass, drink its contents, and say, "Gentlemen, I have fulfilled my promise. You are all witnesses that I did not touch the hat."

THE MAGICAL TUMBLERS.

Take two plain glass tumblers and put a coin—a sixpence say—into one of them. Next gum a piece of red blotting-paper over the mouth of each tumbler. Trim the edges of the blotting-paper so that nothing overlaps. Make two tapering tubes of brown paper to fit on to and exactly cover the tumblers. Close these tubes at the narrow end either with a disc or by folding in the paper all round, thus making opaque jackets for the tumblers. Place the tumblers with the jackets on, mouth down, on a sheet of red blotting-paper, and you are ready to astonish your friends. Let us call the tumbler with the sixpence in it A, and the empty one B. Borrow a half-sovereign from one of the spectators, and place it under the tumbler A; lift off the jacket, and, lo! the half-sovereign has changed into a sixpence. Replace the jacket and lift tumbler and jacket together, and the sixpence has changed back to the half-sovereign. Give back the half-sovereign and borrow a sixpence, and place it under the tumbler B. Proclaim that you can make the sixpence pass from B to A and back again. Lift off the jacket from B and the sixpence is gone. Lift off A's jacket and—there is the sixpence in A. Replace A's jacket, and lift tumbler and jacket together—where is the sixpence? Replace B's jacket and lift B with its jacket on, and there is the sixpence in its former position.

A DIFFICULT LIFT.

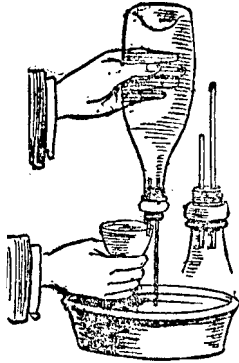
Next time you are seated at dinner attempt the following simple little trick. Place a dry tumbler upside down upon the table, and grasp it, in the manner illustrated, with forefinger and thumb of the right hand, allowing no other parts of the hand to come in contact with the glass. The feat consists in lifting the tumbler from the table by the use of simply forefinger and thumb.



HOW TO EMPTY A GLASS.

The trick consists in emptying a glass full of water by means of a bottle also full of water and without emptying the latter.

Take two pieces of straw, one rather longer than the depth of the glass to be used, the other twice as long. Bore two holes in the cork of the bottle and insert the straws without breaking them. Then stop the outer end of the short straw by means of a pellet of wax; fill the bottle up to the brim and push in the cork until the water squirts from the end of the larger straw. Now invert the bottle and hold it so that the shorter straw reaches to the bottom of the glass. Cut off the stopped end of the straw with a pair of scissors, and the water will flow up the straw into the bottle and out at the larger straw, until the glass is emptied. The reason of this curious occurrence is that the straws form the two arms of a syphon.

**THE DISAPPEARING GLASS**

is a simple little trick, and is performed as follows. It was awarded a prize of one guinea in a competition held some time ago by a London weekly magazine.

Stand at one end of the room, having all your audience well in front of you. Place a penny on a small table, and cover it with an inverted tumbler. Then take a stiffish newspaper, and with it cover the glass, allowing a good spread of paper to rest on the table in front of the glass. Press the paper firmly over and around the glass, thus making a mould the exact shape of the tumbler.

Take up the glass and newspaper, holding them, with your left hand, close to your body. At this point hand the penny to one of your audience, urging them all to make or observe some mark on the coin by which they will know it again. Whilst they are thus engaged, and under cover of the newspaper, slip the tumbler, with your right hand, into your jacket pocket (which has been previously prepared to receive the glass easily).

Now take the penny back, place it on the table once more, cover it with what appears to be the tumbler (but what is really only the newspaper with a tumbler shape to it), and say you will now make the penny disappear. Give a hammer to some timid member of your audience—preferably a lady

—inviting her to strike the glass as heavily as she can. Should she object, do it yourself.

Everyone will naturally be expecting a great smashing of glass. Having struck the blow, remove the paper, thus exposing the penny, and say you regret having made the mistake of calling your performance a disappearing penny trick instead of a disappearing glass trick.

A NOVEL MODE OF EMPTYING A TUMBLER.

Place two tumblers of equal size in a basin of water. When they are full, place them horizontally rim to rim, press them somewhat tightly together, raise them to the perpendicular, and lift them out on to a large plate on the table. No water will escape from them. The question now is—How is the water in the topmost tumbler to be extracted without the performer touching either tumbler or plate? Simply by blowing between the rims.

EXPERIMENTS WITH EGGS.

The list of amusing tricks that may be performed by means of eggs is almost endless, or, at least, could be made to fill a goodly volume. The following are a few of the simpler feats that may be accomplished:—

AN EGG THAT VARIES IN WEIGHT.

For this little experiment you require three long-shaped glass jars. One of these is filled with cold water, and a second with a strong solution of salt and water. The third is half filled with a similar solution of brine, upon which is then gently poured a quantity of fresh cold water, so that the two



liquids remain quite distinct and unmixed. Now take three fresh eggs. Drop one of them into the jar containing only water, and it will sink to the bottom. Gently place the second in the jar filled half with brine and half with water: it will sink until it reaches the junction of the two liquids, when it will appear to encounter some resistance and stop. The third egg, when carefully laid in the third jar, will float on the surface. The explanation lies in the different densities of the liquids, but if the trick is performed before friends who are unaware of the contents of the jars, their astonishment will be considerably aroused.

HOW TO MAKE A MAMMOTH EGG.

At intervals paragraphs appear in newspapers telling of the high prices paid for the egg of the Great Auk. You may astonish your friends by actually making an egg, which, if not exactly resembling that of the Great Auk, is at least as large. Break up about a dozen fresh eggs, place the yolks in one bowl, the whites in another, and the shells in a third. Then mix the yolks thoroughly together, and pour them into a bladder. Tie up the latter securely, and place it in cold water until the contents have solidified. When this has happened take off the covering, put the ball of yolk into a still larger bladder, and pour into the latter the mixed whites of the eggs. Then tie up the bladder in the shape of an egg, and boil it in water until the contents become hard, being careful to keep it turning the while, in order that the yolk may be kept in its proper position. While this part of the egg-making process has been going on the shells have been steeping for about a day in strong vinegar, and have become pasty. When the egg has been boiled hard remove the bladder, and paste it with the softened shells by means of a brush. The whole has only to be kept in rain water for the space of twenty-four hours, when the shell will have become quite hard, and you will have a gigantic egg.

FACIAL EXPRESSION ON AN EGGSHELL.

Here is a diverting trick which may be performed any morning you may happen to have eggs to breakfast. After cutting off the top, and depriving the egg of its contents, sketch upon the shell a comical face, marking the features strongly with ink, or a very black pencil. Then



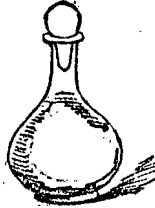
replace the shell in the egg-cup, and by giving it a rolling motion with the hand, the most ludicrous effects may be produced.

TO BLOW AN EGG FROM ONE WINEGLASS TO ANOTHER.

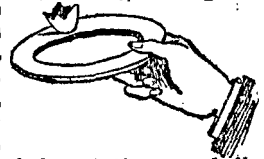
Place an egg in a wineglass, thick end downward. Then put an empty wineglass immediately in front of the other glass. The trick is to blow the egg from the one glass into the other. It is easily done, at least after a little practice. The lips should be placed close to the rim of the glass containing the egg. Then the experimenter should blow strongly and sharply, directing the air as far as possible between the egg and the side of the glass. The egg, if the experiment is well done, will jump out of one glass into the other. It is wise to use a hard-boiled egg for the experiment.

THE FLEXIBLE EGG

trick consists of the apparently impossible feat of introducing an egg into a narrow-necked bottle. The trick, however, is somewhat akin to that of Columbus, whose extraordinary announcement that he would make an egg stand on end was slightly marred by the fact that he chipped the end of the egg before he effected his purpose. Insert a piece of burning paper into a dry and narrow-necked water decanter, and immediately place a hard-boiled egg, minus the shell, in the neck of the bottle. The blazing paper expands the air inside the bottle, creating a partial vacuum, and the egg being acted upon by a greater external than internal atmospheric pressure, gradually elongates, creeps slowly down the neck of the bottle, and then drops suddenly to the bottom with a loud report.

**THE ROTATING EGG.**

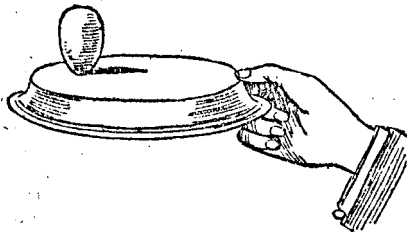
All you require for this trick are a plate and the top of an egg. Place the egg-shell on the rim of the plate, which has been moistened with water, and by moving the plate in a circle the egg begins also to move, but in a contrary direction. With a little dexterity you should be able to raise the speed of the rotating egg-shell, which, it will be observed, revolves on its own axis at the same time.

**THE SELF-COOKING EGG.**

This trick, while apparently simple and easy, may prove very suggestive. The necessary material for this little experiment may be bought for a few pence at any drug store. First take a common silver or brass teaspoon and fill it one-quarter full of potassium and three-quarters full of common cooking soda. Take an egg and lay it upon the teaspoonful of potassium and soda, so that it will conceal both of them and appear to rest on the bottom of the spoon. Then get a common thick, heavy glass tumbler, fill it about two-quarters full of water (care should, of course, be taken that the tumbler is not so full that it bubbles over when the water boils). Then drop the spoon holding the potassium, soda, and egg carefully down into the tumbler of water, give the entire mixture a few sudden strokes with the spoon so as at once thoroughly to dissolve the compound; then wait at least one minute before taking out your egg. When the egg is wholly cooled carefully break it open and see how nicely cooked it is—just nearly solid enough to suit the average taste.

THE PERFORMING EGG.

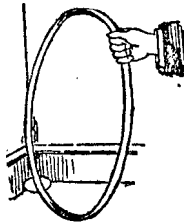
Here is another amusing trick, which requires considerable dexterity and skill, and which may be regarded as an elaboration of one already described. Place a hard-boiled egg on the bottom of an upturned plate or tray, which you hold in the manner illustrated. Give the dish or tray a horizontal and revolving movement, and you will notice the egg is carried along with it. Gradually increase the rapidity of the motion, when the egg will raise itself until it stands on



end, revolving like a top. It will help considerably if the performer takes care to hold the egg in an upright position while it is being boiled. By so doing the air chamber is kept central along the axis of the egg. A simple way to do the trick is as follows:— Place the tray on the table, allowing it to project so far over the edge that it can be readily grasped by the hand. Place the egg in the middle, and with the thumb of the left and the first finger of the right hand placed at opposite ends, set it spinning vigorously. It will raise itself on end, still spinning. Now seize the tray and revolve it as already described, in the direction opposite to that in which the egg is moving.

THE HOOP AND THE EGG.

Here is an amusing and simple little trick. Procure an egg and a hoop of wood or iron, and inform the company that when you have placed the egg on the floor, they will be unable to break it with the hoop. You will no doubt be laughed at, but will be able to turn the laugh on your friends by putting the egg on the floor in a corner of the room, and close up to the wall. It is easy to see that the egg is secure, it being impossible to make any point of the hoop touch it.



TRICKS WITH RINGS.

We shall now describe one or two tricks which are performed by means of rings. The first of these is entitled—

THE RING ON THE STICK.

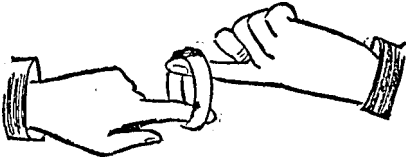
For this trick you require two curtain rings about the size of a penny, a coloured or white pocket handkerchief, and an ordinary walking-stick. One of the curtain rings is sewn into one of the corners of the handkerchief, by putting a small patch of the same material upon the corner, and the ring inside of it. This handkerchief is kept in the coat pocket, or on the table out of the reach of any of your audience. Coming forward you show to the company a curtain ring, and hand it round to show that there is no flaw in it. At the same time you take up the handkerchief with the concealed ring in the corner, and holding up the handkerchief with this corner in the left hand, you carelessly draw the handkerchief through the right hand to prove that there is nothing concealed about it. Then, taking the ring, which has been handed round, you declare you will now place it in the centre of the handkerchief, and thrusting the ring beneath the handkerchief, you pretend to place it there, but in reality you only place the corner of the handkerchief containing the sealed ring there, while the other ring is palmed in the right hand. Now give the handkerchief with the ring inside of it to a boy to hold, and enforce upon him that he must not allow the ring to escape. Take up the walking-stick and state that you mean to pass the ring from the inside of the handkerchief on to the middle of the stick, while a boy holds the walking-stick at either end. Take the walking-stick up in the right hand, and with the ferrule in the palm of the hand, you ask the boy to take hold of the handle, then, slipping the right hand with the ring up the stick to the centre, you grasp the stick there and desire the second boy to take hold of the other end—that is, by the ferrule. This movement has enabled you to place the ring on the stick, but still concealed by your right hand. You now desire the boy holding the handkerchief and ring to place the handkerchief containing the ring over your right hand. When this is done you grasp the handkerchief by one corner and remark that whenever you count three he is to let go the handkerchief, when the ring will have disappeared from it and have passed on to the stick. At the word "three" you cry to the boy to let go. He does so, you snatch the handkerchief away and at the same time open the right hand, when the ring is seen dangling upon the stick as if it had just flashed from the handkerchief thereon, to the great wonder of your audience.

Aunt Kate's Household Guide

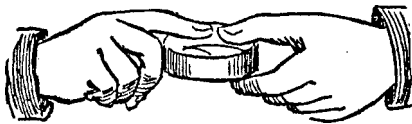
contains fullest information about the Spring and Autumn Cleaning. Sold everywhere! Price ONE PENNY.

A RING PUZZLE.

A young wizard came home from school one day, and lifting a napkin ring from the dinner table, inquired—"I say, can any of you do this?" Thereupon he inserted his two fore-fingers in the centre of the ring, in the manner illustrated, twirled the ring smartly on his fingers, put his two fore-



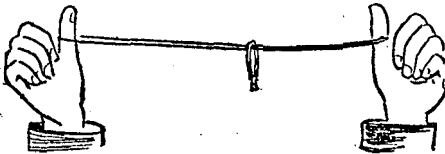
fingers and two thumbs together, and out dropped the ring upon the table. The trick seemed so absurdly simple that his father lifted the ring, did, so far as he could, just as the little wizard had done, and made a complete muddle of his attempt, for the ring would never drop out with him, but remained fixed between his thumbs and fore-fingers. The trick was tried by all present, but easy as it seemed, no one succeeded in doing it. In his after explanation, the young wizard showed how the trick was performed. Be certain that the backs of the two fore-fingers are towards each other when the pause is made to bring the tips of the fingers and thumbs together. Pull the



ring into a horizontal position, when one of the fore-fingers will be pointing upwards and the other downwards. Now bring the tips of the thumbs upon the tips of the fore-fingers, place all four tips together in the centre of the ring, raise the upper thumb and fore-finger, and out will drop the ring.

ANOTHER RING TRICK.

This was only one trick that the little wizard had acquired that day. Taking up a piece of string about a yard long, he tied the ends together, and asking one of us to place his thumbs inside the loop, he put the ring upon the string in the manner illustrated. "Now," said he, "the problem is to



take the ring off the string without taking the string off the fingers." This seemed an impossibility; nevertheless, one or two of those present made the attempt, only to fail

utterly. Thereupon the young magician was asked to perform the feat, and this he very smartly and successfully did. The following is a description of how he proceeded:—

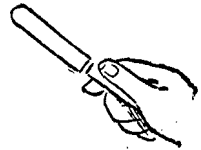
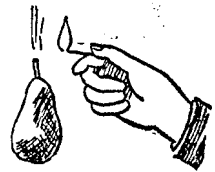
With the left fore-finger, the upper part of the string, from the holder's right hand side of the ring, was pulled forward and downward; with the right fore-finger, the under string was, from below, pulled forward and upward, causing the two strings to cross each other. The string held in the right forefinger was then carried forward between the fore-finger and thumb, and placed over the right thumb of the person holding the string, from the under side. The ring was now advanced towards that thumb, and the upper string seized in the same manner, and placed over the same thumb, again from the under side. The left fore-finger, which was still inserted in the loop of the string, was then withdrawn, and the ring gently pulled, when it came away freely.

MISCELLANEOUS TRICKS.

In order to perform the trick of

THE DIVIDED PEAR.

you proceed as follows:—You suspend a pear from the ceiling by attaching a thread to the stalk; you then hold the blade of a knife underneath it, and on the string being cut or burnt the company is astonished to witness the pear descend upon the blade and split in two. The explanation is simple. Previous to the trick, and unknown to the company, while the pear is hanging in a state of rest suspended by the thread, you raise a tumbler of water to it, and let the pear dip into it. Now mark the exact spot where the drops from the pear fall. Immediately above this you hold the knife, with the result as already described. The same trick in a different form may be done by suspending an opened penknife, and in the same way causing it to enter the neck of a bottle. In the illustration the knife is brought near to the pear for the sake of economising space.



POINTS about the 'PEOPLE'S JOURNAL.'

10,000 News-agents sell it.

1,250,000 People read it.

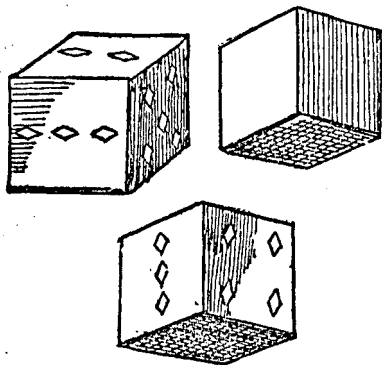
A week's issue weighs 20 tons.

It is the People's Family Newspaper.

Sold Everywhere, Price One Penny.

THE CUBE IN THE HAT.

For the performance of this trick two black satin hats are requisite. These are borrowed from gentlemen present. There are various excellent tricks to be performed by means of hats, but a simple and easily executed one, which forms a good preliminary to the trick to be explained, is done by means of a blown egg. Take an ordinary hen's egg, blow the inside out of it by making two holes, one at each end. Take a black silk thread, tie it to a small piece of lucifer match, and insert the piece of wood inside the egg. Fill up the holes with a small piece of white sealing or beeswax, and to the other end of the piece of silk thread, which should be about half a yard in length, fix a small bent pin. When the hats are being brought to you by some boy, you go behind your table, lift your blown egg in the one hand, and at the same time fasten the bent pin inside the bottom of your waistcoat. You now take up one of the hats, drop the egg in, and ask for a little music. When



the music begins, by gently putting the hat away from you, the egg is drawn up to the rim of the hat, and with a skilful manœuvre may be made to travel all round the rim, apparently keeping time to the music. You now take up the other hat, and make the egg jump from one hat to the other, to the wonder and surprise of your audience. You now put away the egg and proceed to the trick with the cube. The cube is a square piece of wood, say two inches each way. It is painted black, with white spots painted like a die. These spots may be made by means of pieces of white paper gummed on the cube. If an ordinary piece of white wood is taken and painted with black ink, with white pieces of paper for the spots, it will answer the purpose quite well, and cost nothing. A cardboard case is made for this to fit neatly, and this is also blackened with ink, and white spots made upon it to resemble the solid die. For this, again, there is another cover made, into which the solid

cube, with its imitation case, fits smoothly. You bring forward your cube enclosed in its case, take it out of the case, and knock it hard upon the table to show to your audience that it is solid wood. Of course, your fingers prevent the solid cube from slipping out and betraying you. Your two hats are now placed on the table with their openings together, and taking up your cube with its false covering in the right hand you place it on the crown of the upper hat. Tell your audience that it is your intention to send the block right through the crown of the hat. At the same time lift the top hat with the left hand and the cube with the right. Right through the crown of the hat, you continue, into the bottom of this hat, at the same time placing your hand with the cube inside the hat to illustrate what you mean to do. You now allow your fingers to slacken, the solid cube slips out of its case, you lift up what appears to be the solid cube, and replacing the upper hat, you with your right hand place what appears to be the solid cube on the crown of the upper hat. Understand now the solid cube is in the crown of the bottom hat and the false cube is standing with its open end down on the crown of the upper hat. You now take up your outer case—which may be ornamented in any way to please the eye—show that it is empty, and with much formality cover up with it the false cube, which all eyes see. Now, take a knife, and make a pretence of cutting round about the cube. Take your magic rod, touch the case, command the cube to pass through the hat, and immediately thereafter lift up the case, when the inner case comes along with it, and you hold it up before all to show the case is empty. Now lift up the upper hat and place it on the table, then take up the lower hat, turn it gently over, when out drops the solid cube with a crash upon the table.

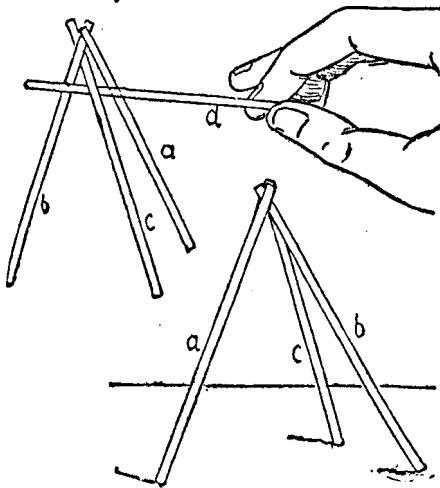
SWALLOWING A BARBER'S POLE

is a trick which is easy of accomplishment. Take three sheets of stout white paper, and cut each into strips two inches in width. Paste or gum them together so as to form a long band, which has then to be coloured in alternate stripes of red and blue, resembling the characteristic decoration of a barber's sign-post. Wind up the band compactly upon a round ruler, leaving the inner end so folded that it may without difficulty be pulled out. Then, all unknown to the friends whom you are about to astonish, insert the roll in your mouth along with a quantity of paper shavings, and pretend to chew the latter. While holding the hand to the mouth lay hold of the inner end of the roll with the thumb and forefinger, and draw out the coil, when it will unfold itself and present quite the appearance of the red and white pole so significant of a hairdressing establishment.

THE FOUR MATCH PROBLEM.

If we believe a celebrated French journal, the problem of the four matches would tax the patience of the best architects or mechanics, unless they have been previously told how to do it. Of course, when the plan is known it seems very easy; but otherwise it will make an interesting evening's puzzle for a winter party. Split up a little the wooden end of a common lucifer match (a). Take a second match (b) and sharpen it longitudinally at the wooden end, like the extremity of a wedge. Place this wedge (of b) into the split (of a), so that the two matches may form between them an angle like that in this illustration (less than a right angle). Place them on the table as in the lower diagram, with the vertex of the angle above, and leaning upon a third match (c).

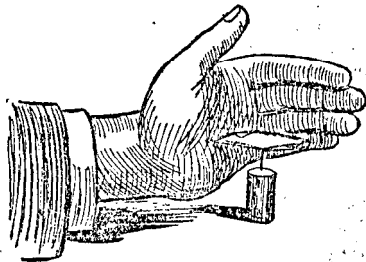
The problem is to lift these three matches bodily up like the top of a pyramid, by means of a fourth match, without touching any of the three matches with the fingers. There is only one way of doing it: you can do it easily. When the audience try and



give in, very likely saying it is impossible, you just do it, and they will be the more astonished. They try again, and again fail, until you explain the method, which is as follows:—Take the fourth match (d) between the finger and thumb and bring it horizontally beneath the third match (c). Press the first two matches gently with it, so that they will lean on it, at the same time allowing the third match to fall on it. Lower the hand in order that the third match may slip through the angle between the first two, so as to penetrate a little beyond. The thing is done. You can now lift up the three matches, as in the top diagram, by means of the one in your hand, two being on the one side of it and the third on the other side

THE PAPER TOP.

Who can make a top that will set itself in motion? Nobody? We will show you how it is done. Take a cork, a sewing needle, and a square piece of writing paper. Place the cork on the table and fasten the needle in it, point up, find the centre of the piece of paper by drawing the diagonal lines, and



balance it on the needle after bending two opposite corners of the paper, one upward, the other down. Now we are ready for the trick. Hold your hand close to the paper as shown in figure. Before long the paper will set itself in motion, and will stop as soon as you remove your hand. This simple mechanical effect is produced by the warmth of the hand catching the corner of the paper that has been bent downward, which sets the paper top in motion.

SWALLOWING A KNIFE.

This is a pleasing and harmless diversion, but in order that there may be no fear of one cutting oneself it is better to perform it with small fruit knives. Besides two knives all that is required is a small piece of white notepaper, rather longer than the knife blade, and twice the width of the blade. Previous to exhibiting the trick conceal the duplicate knife down the back of the neck, blade upwards, care being taken that the knife does not slip down. Fold the piece of paper lengthwise in half, and put it over the blade, explaining that this will prevent the knife cutting you as it is swallowed. Place the palms of the hands together, fingers upwards, holding the blade between them, handle downwards, and between the wrists. Keeping the elbows as close together as possible raise the hands, and put the handle in the mouth, as if about to swallow it. Again withdraw it, with the remark that it is not going down as easily as usual. Again raise the hands smartly, but this time allow the knife to slip out of the paper and fall behind the table on the knees. The paper will be visible above the finger tips, and appear still to contain the knife. Make appear to be forcing the knife into the mouth, but in reality only the paper, which can be chewed into a ball and concealed behind the teeth. Now reach the right hand over the shoulder and withdraw the concealed knife, and exhibit.

A STARTLING SWORD TRICK.

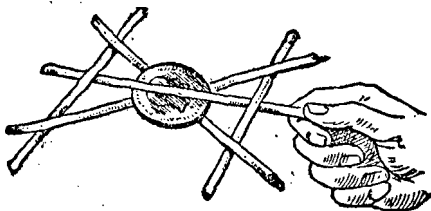
One of the newest and most startling of sword tricks is that which was recently described and explained in "La Nature." A boy picks up a long, lithe, sword blade, and making a thrust at the conjurer the blade apparently enters his stomach and makes its appearance at his back. The sword has no handle, but threaded through an eye at the end like a needle are a few yards of ribbon, and as if to show that there is no deception the sword is thrust right through the conjurer's stomach and is pulled out at his back, ribbons and all. Of course it is an illusion, and the small diagram explains how it is managed. There is a metallic tube



bent to the curve of the conjurer's body, and fastened thereto underneath his vest. When the boy thrusts at him the conjurer seizes the point of the blade as if to ward off the point, but in reality he directs it to the mouth of the tube, and the flexible blade, impelled by the thrust, goes easily through the bent tube, making its appearance either through a hole in the back of the coat or between its tails, as the tube is fixed. The illusion is complete, and the effect of seeing a sword apparently thrust right through a man's body is thrilling in the extreme.

STRAW TRICK.

How may four straws and a coin be lifted by means of a fifth straw? It is allowable



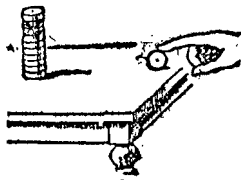
to arrange or fix them in any way, but nothing besides straws and coins may be used. The sketch will make matters clear.

THE LAW OF INERTIA.

There are few readers who are not acquainted with the existence of the great natural law of inertia, in virtue of which bodies at rest tend to remain at rest, and bodies in motion continue in motion until external forces bring them to a standstill. Here are two interesting experiments which illustrate the law far better than any explanations could do.

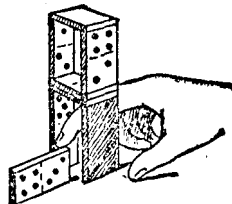
A BATTERY OF DRAUGHTSMEN.

On a table place a pile of draughtsmen, near the edge of the table, and distant about ten inches or a foot from the pile, hold another "man" in the position indicated in the sketch, and by pulling back the hand, shoot it smartly against the column. According to the manner in which it strikes, either one or two of the men will be sent spinning out of the pile, but the equilibrium of the latter will be in no way disturbed.



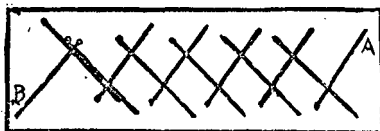
THE BRIDGE OF DOMINOES.

The other feat is performed by means of dominoes. Construct of these an arch like that in the illustration. Underneath the lower arch place on its side another domino, in such a position that by tilting it smartly with the fore-finger it will strike the lower cross-brick. If this is done swiftly and steadily, the brick will be knocked from its position, while the superstructure, owing to its inertia, remains intact.



TRICK WITH MATCHES.

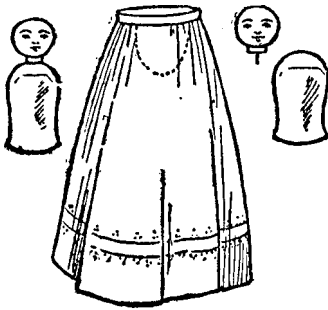
Take ten or twelve matches, and lay them as shown in the diagram. Then put your finger on the match marked "A," and by pressing upon it the match marked "B" will lift itself up and keep in motion by con-



tinued pressing without any of the other matches being seen to move. Always keep the first matches straight, as shown. To make this little feat more interesting put your hand over your finger, and, to the astonishment of the spectators, you may put the match in motion at command.

THE TRAVELLING DOLL.

This is a trick which demands a considerable amount of practice if it would be accomplished neatly. The things required are—1st, A wooden doll such as may be procured for a penny at any toy shop, with the legs broken off. The doll should be one of the old-fashioned kind, with a good-sized head and body, about five or six inches in length, the head being about one inch and a half in diameter. If a doll cannot be purchased, a very little ingenuity would enable the reader to make one with a piece of wood and a pocket-knife. The head is carefully sawn off with a fine saw, and a peg of wood is inserted into the head-piece at the place where it is cut through. A hole is made to fit the peg on the place where this joins, so that when the peg is inserted in its place in the socket the doll looks to all appearance



as if it were whole instead of being decapitated at the neck. There is also required a doll's petticoat. This may be made from any fancy-coloured calico or other dress material. It should be about 18 inches in depth, and gathered at the top and bound, with a hole sufficiently large to enable the doll's head to be popped easily through the aperture. In the inside of the dress, and sewn to the top, a loose pocket must be fitted sufficiently large to hold and conceal the doll's head. These are the things required, and the illustration shows them.

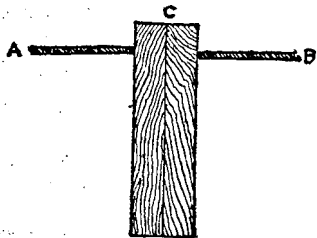
The method of doing the trick is as follows:—You take up the doll, and, holding it in such a way as to conceal the cut at the neck, you tell the audience that this is a common wooden doll, solid and perfect in every respect, and to prove this you dump it loudly on the table to show that it is actually solid wood. Then, putting down the doll, you take up the petticoat and roll it into a ball in your hand to show that there is nothing concealed about it. You then turn it inside out, but in doing so you keep the pocket towards yourself, so that it may not be detected by the audience. You then turn it out again, switch it on the table to

prove that there is nothing concealed in its interior, and, gripping the petticoat with left hand by the headband, you now take up the doll with your right, and, placing it inside the petticoat, you push the doll up until its head makes its appearance through the opening at the band. You now require some lively patter to interest and distract the attention of your audience. If you can do a little ventriloquism at this point to make the spectators believe that the doll really speaks, so much the better. The talk may go on in this way:—

“Are you fond of travelling, Tommy?” you inquire. Tommy says “Yes.” “Would you like to go to California, Tommy?” Tommy will say “Yes” or nod his head, as the case may be. “Would you like a little money to pay your passage, Tommy?” “Yes,” Tommy would like a little money. “Then I will see if I can find a penny for you.” So saying, you quickly withdraw the right hand from the interior of the petticoat, taking away with it at the same time the body of the doll concealed in the palm of the hand. Thrust this quickly into the trousers' pocket, leaving it there, and bringing forth a penny or a coin of some kind. Knock with this loudly on the head of Tommy, and now say, “Are you ready, Tommy, to start upon your travels?” Tommy nods or says “Yes.” Then, putting down the coin and holding up your right hand to show that there is nothing hid about it, you now place it inside the petticoat, and pressing the head of Tommy down through the aperture with the forefinger of the left hand, Tommy's head, of course, comes into the fingers of the right hand, and is deftly placed into the concealed pocket. You now say Tommy is gone, and to prove your words you turn the petticoat inside out, keeping, of course, the pocket towards yourself, and lo! Tommy has vanished. Strike the table with the petticoat, and no sound will be heard, for the reason that the pocket being near the top, Tommy's head does not come in contact with the table. Turn the petticoat right side out again, and roll it up into a ball, to prove to the satisfaction of every one that Tommy has absolutely and utterly vanished. Holding the rolled up petticoat in the left hand, you may throw open your coat and roll up your sleeves to show that it is not concealed in any way, then unroll the petticoat again and place your right hand inside as before. Bring out the head from the pocket, thrust it through the aperture—only so far as the chin, of course—turn his head merrily round, make him nod, and bid him disappear again; then, thrusting his head into the pocket, you show to all that Tommy is gone once more, and so the trick concludes, to the wonderment of all not in the secret.

STRING-STICKS.

This "puzzle of the streets" is called the Pillars of Solomon—why, we know not. It used to be made of beautifully-finished ivory or boxwood, with elegantly-turned knobs. Now it is simply, to look at, two pieces of ordinary wood three inches long and an inch square. At the bottom a piece of calico serves as a hinge. Close to the top a piece of string is run through them. But is it run through them? Here is the state of affairs as the man has them on his tray:



D
FIG. 1

"Now," says the man, "I will show you there is no deception, the string (A B, Fig. 1) runs freely through the hole"—as it does, backward and forward, as fast as you like to pull it. "I will now," continues the man, "cut the string."

And he does so, cutting down between the sticks in the line C D. He passes the knife right down between the sticks, opens them for a moment to show that the string is cut, then shuts them as before, and, as before, the string A B runs freely backward and forward.

"I have cut the string, and joined it again, ladies and gentlemen!" he exclaims proudly. Has he really done this? Let us buy the sticks and take them home and investigate. You will find that the two sticks are really four pieces of sticks, and that, in short, the string, instead of crossing where it seems to do, has to run down one stick and up another, so that no knife could injure it, used in the way an ordinary person would use it. And, in fact, to make a long story short, the string-sticks are made in this fashion:—

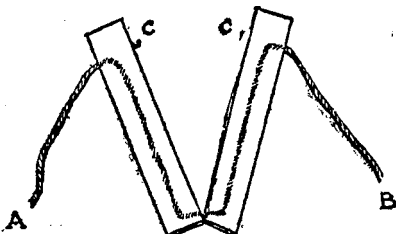


FIG. 2

Take two sticks, each three inches long, one inch wide, and half an inch thick. Cut

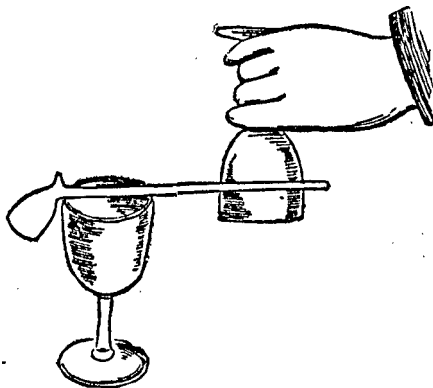
a groove in the sticks, where you see the dotted lines in Fig. 2, and place the string in the groove. Then glue on to each piece another stick of the same size, and then make the cloth hinge on the end. The little projections (C C) are small pieces of string glued in small holes, to heighten the deception.

A BURNING SNOW MOUNTAIN.

This is a little trick which consists of setting fire to a heap of snow. Take with you in your pocket a few pieces of camphor. Then collect a heap of snow so as to resemble a miniature mountain, and while smoothing the sides and adding the finishing touches, secretly insert the camphor in the summit of the pile, taking care, of course, not to bury it in snow. Then apply a lighted match to the camphor, and to the astonishment of the onlookers the miniature crater will burst into flame, and burn with a beautiful light for several minutes.

THE ELECTRIFIED PIPE

Trick is easy of accomplishment despite the fact that it looks an impossible one. Place a clay pipe in equilibrium on the edge of a glass. The problem is to make the pipe fall



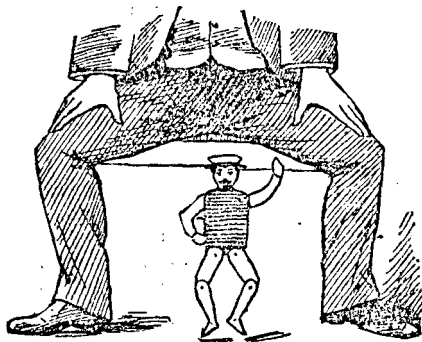
without touching it, blowing upon it, or agitating the air, and without moving the table. Take another glass and rub it rapidly on the sleeve of your coat. When you bring it close to the pipe you will see it turn after the glass until it falls.

A STRIKING SIGHT.

An astonishing parlour trick may be done in this way. Let a person sit down upon a somewhat low chair. Let a second person seat himself or herself upon the first person's knees, a third person upon the knees of No. 2, a fourth on those of No. 3, and so on until there is a row of six or seven. The chair on which No. 1 is sitting may then be withdrawn with perfect safety, and the row of performers will be left sitting on each other's knees as if nothing had happened.

THE AUTOMATIC DANCER.

A capital diversion for an evening party is the one we are now about to describe, which, for want of a better name, we call the automatic dancer. The performer brings into the room a cardboard figure of a sailor, Highlander, Turk, or other personage whom he may choose. The figure is from 12 in. to 18 in. in height. It is brilliantly coloured, according to taste. Each of the lower limbs is in two pieces, being fastened at the knees and thighs by knotted strings, which enable them to move



freely. The performer shows the figure to his audience for the purpose of satisfying them that it is only a piece of cardboard. He then seats himself facing his audience on a chair at the back of the room, and, placing the figure between his knees, with its feet touching the ground, he proceeds to make mesmeric passes over it, when, lo! the figure appears to stand bolt upright, unsupported, upon the floor. This will excite general wonder, but the wonder will be increased to astonishment when, to the inspiring strains of the piano, or the melodious whistle of the performer, a lively jig or hornpipe is struck up, and the little figure proceeds to dance energetically, keeping time to the music. There is nothing apparently to cause him to dance; he seems quite unsupported, and yet there he is, before the eyes of all, dancing away for very life. This wonderful illusion is exceedingly simple, and is produced in the following manner:—The performer has previously procured about a yard of black silk thread. To each end he has fastened a black pin, and these pins he has fastened in his trousers—one in each leg—at the outer sides, and just about the level of his knees. He can walk with the utmost freedom, and the thread is quite unperceived while he is in the room. On seating himself on the chair he places his legs widely apart till the string is almost taut. Then the figure has two slits made in the head in the position occupied by the ears. These slits are slightly bent back on

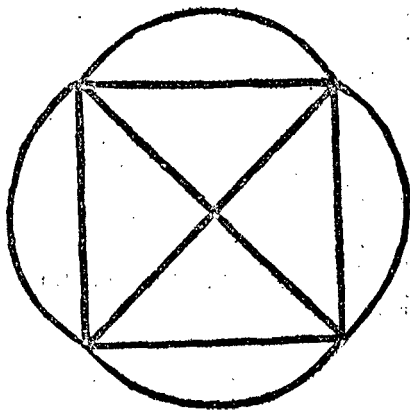
the upper portion. The consequence is that when the figure is gently placed upon the ground in front of the thread the slits catch in the thread, and thus support the figure, the performer regulating his legs to the requisite height to make the feet of the figure just touch the floor and no more. The performer then places his hands upon his knees, and by gently shaking his legs, keeping time to the music, the figure is caused to dance, and may actually be made to leap in the air by a twitch of the limbs. At the conclusion of the performance the figure may be again handed round, and the company have another opportunity of seeing that there are no cords attached to it to cause it to perform. The dancer appears to act in a most mysterious and wonderful manner, and the astonishment is sure to be unbounded if the trick is carefully and neatly done.

ONE STROKE PUZZLE.

Here is a puzzle with which you can catch your friends. Just ask them to draw the following figure without taking their pencils off the paper and without going over the same line twice:—

After you have tried it yourself for a while you will find that there is always one line missing, and to supply this line and comply with the conditions you must go about it as follows:—

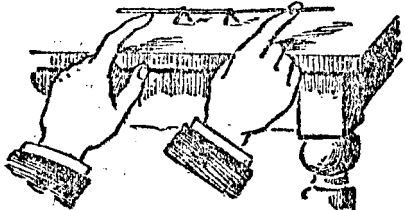
Take a sheet of paper and fold it once. Then fold back the upper lap about an inch from the first crease. Now take your pen-



cil and, using the second crease as a ruler, draw a line on the paper about two inches long in such a way that the pencil will make its mark along the crease as well as on the sheet itself. Then, without taking your pencil off the paper, smooth out all the folds and you will find that the two sides of the inner square have been made. You can then continue to complete the figure in any way that may strike your own fancy.

ARE YOU NERVOUS? TRY.

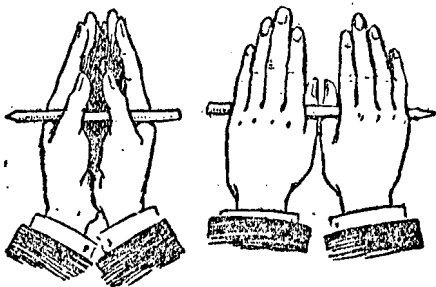
A simple test for steadiness of hand and nerve may be had in this way. Place your



forefingers on the table, and across them lay a thin cutting of wood, or a straw taken from a broomstick. Upon this place two V shaped pieces of thin wood or straw, the ends of which should just reach to the table. Your best attempts to keep the straw steady are sure to be unsuccessful, and the two riders will hobble nearer and nearer until they meet in the centre.

THE TANTALISING PENCIL.

Take a pen or pencil between the thumbs and first fingers when the palms of the hands are together, as in Fig. 1. Now, try to bring the backs of both hands upwards, with the pencil across the palms and over the thumbs, as in Fig. II., and again back to the first position without letting go the pencil with either hand. When neatly done, the movements are both smooth and graceful, and are as follows:—Keep the fingers close together and quite straight, raise the fingers of the right hand and pass them between the thumb and fingers of the left hand and round the left hand end of the



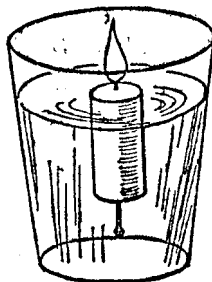
pencil, completing a circle round it, whilst at the same time the thumb of the left hand passes between the thumb and fingers of the right hand, the thumb making a circle round the opposite end of the pencil. The hands will now be in the position sketched in Fig. II., with the point of the pencil at the opposite side. To reverse the operation, let the thumb only of the right hand pass between the thumb and fingers of the left hand and round the pencil, the fingers only of the left hand simultaneously passing between the thumb and fingers of the right hand, and round the end of the pencil, until the first position is again attained.

TELLING AN UNSEEN AMOUNT.

Request a friend to think of a given number of pennies, and, in imagination, to borrow an equal amount from another member of the company, and to add both sums together. "Suppose, now," you say, "that I present you with fourteen pence. Add that sum to the former amount, distribute half the total as you please, return the money you borrowed, and I shall tell you how much you have remaining." Whereupon you open your hand, revealing seven pennies, and you are safe in asserting that this is the amount in question. The explanation is simple—namely, that the remainder is always one-half of the amount added by way of a present.

We will now try two little tricks in which the agency of water is required. The first of these we will term

AN INGENIOUS CANDLESTICK, the candlestick being nothing less than a glass of water! Take a piece of candle two



or three inches in length, and into one end of it stick a nail of such weight that when the candle is placed in water it shall float with the upper rim on the surface of the water. Place this candle in a tumbler of water and light the wick. It

will continue to burn until the candle is consumed to the water's edge. An improvement on this trick is that which we entitle

A CANDLE BURNING UNDER WATER.

This apparently extraordinary feat is in reality one of the simplest imaginable. Float a short lighted candle on a piece of cork placed on the surface of a basin of water. Then place either a bell jar or a glass jelly-jar over the candle, and press the jar slowly to the bottom of the basin. Curiously enough, the jar will not fill with water, and the candle will burn until it exhausts the air in the glass, although meanwhile it is floating considerably below the level of the surface of the water.



ANOTHER CANDLE TRICK.

A candle that won't be blown out may be made by wrapping round a candle a rag which has been rubbed with salt. If you then light the wick, you may blow at the candle to your heart's content, but it won't be put out and will end its life in the natural course of events despite your attempts to bring it to an untimely fate.

MAGIC SQUARES.

Magic squares of odd numbers in which the figures added in perpendicular, horizontal, or diagonal rows make the same sum, are found in books of puzzles, but the principle on which they are based is never given. There is a principle, and it is applicable without limit, from one square to any odd number of squares indefinitely. For illustration, twenty-five squares are given, and the sum of each of its rows of figures perpendicularly, horizontally, or diagonally is 65. Now for the rule. Always write your

17	24	1	8	15
23	5	7	14	16
4	6	13	20	22
10	12	19	21	3
11	18	25	2	9

numbers consecutively, diagonally, upward, to the right. If that direction carries you outside of the squares, then go to the opposite end of the row at which you stand. If you reach a square that is occupied, or the upper right hand corner, then drop to the square below the last one used, and proceed as before. Begin with 1 in the upper centre square. Now, try it.

THE MAGIC OF NUMBERS.

There are some very curious things to be noticed about numbers, so curious that some have declared that there is "a magic" in figures, and that each numeral is symbolic of something else.

Take a piece of paper and put down the figures 142857 and multiply by 2, 3, 4, 5, and 6, and you will find that the same figures occur in the answer, only the positions are changed. For example, 142857 multiplied by 2 equals 285714, the same figures exactly, and if you will commence reading them at 1 the figures will follow in the same rotation. Suppose you multiply by 4, the answer will be 571428, the same result as before. But if you multiply 142857 by 7 the result is a row of 9's, for the answer is 999999. This is a curious fact and may help you to spend a pleasant hour.

Ask a friend to open a book at random, and select and mark any word within the first 10 lines, and within the 10th from the end of the line. Now, letting your friend

do the figuring, proceed to discover through the "magic" of numbers the location of the word selected. Ask him to double the number of the page and multiply the sum by 5 and then add 20. Then ask him to add the number of the line. Then to that add 5, and multiply the sum by 10. To the answer add the number of the word in the line. Subtract from this sum 250, and let him tell you the result. You will be able to tell him the page chosen, the number of the line, and the number of the word in the line, for the remainder will indicate in the unit column the number of the word; in the 10 column the number of the line, and the remaining figures the number of the page. To give an illustration of this, suppose your friend selects the 6th word of the 6th line on page 33, he would work it out in this fashion:—33 multiplied by 2 equals 66, multiplied by 5 equals 330, add 20 equals 350, to this add 6, the number of the line, and 5, making 361, multiply by 10 and you get 3610, add 6, the number of the word in the line, and then subtract 250, and the answer will be 3366, the first two figures 33 will be the number of the page, the next figures the number of the line, and the last figure the number of the word.

Another interesting and curious problem in the magic of numbers relates to our system of counting money. You know that 12 pence make one shilling and 20 shillings one pound. Now put down any number of pounds not more than 12, any number of shilling not more than 20, and any number of pence under 12. Under the pounds put the number of pence, under the shillings the number of shillings, and under the pence the number of pounds, thus reversing the line; then subtract, reverse the line again, add together, and the result will be £12 18s 11d, whatever numbers you may have selected.

To illustrate, suppose we take £9 16s 7d, reverse this and you will have £7 16s 9d, subtract, and reverse again and add.

£9 16s 7d

7 16s 9d

£1 19s 10d

10 19s 1d

£12 18s 11d

No matter what combination of figures you take, the answer will always be the same.

Having worked at these figures for some time, you may ask your friends if they are aware of the peculiar properties of the numbers 37 and 73? They will answer in the negative, and you will tell them that the number 37, being multiplied by each of the numbers in the arithmetical progression 3, 6, 9, 12, 15, and so on up to and including

27, all the products will be composed of three similar figures, and the sum is always equal to the number by which 37 was multiplied. For example:—

37	37	37	37	37	37	37	37	37	37
3	6	9	12	15	18	21	24	27	27
111	222	333	444	555	666	777	888	999	

Add together the three figures in each product and you have the amount of the multiple. The number 73 being multiplied by each of the forementioned progressive numbers, the products will terminate by one of the nine digits, in reverse order; 73 multiplied by 3 equals 219, by 6 gives 438, by 9 equals 657, and so on until the terminal figures are 9, 8, 7, 6, 5, 4, 3, 2, and 1.

SO NEAR AND YET SO FAR.

Throw a handkerchief on the floor, and supporting yourself on your right arm and both feet—with the remainder of your body clear of the floor—pick up the handkerchief with your mouth. The feat seems easier than it is.

Here is a case of

A TANTALISING SWEETMEAT, and may fitly be performed after that just described. Place a chair, as shown in the



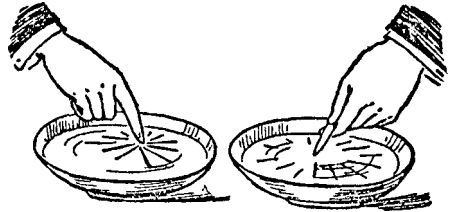
sketch, and invite the performer to kneel in the position illustrated, and while doing so to pick up with his mouth a lump of sugar which has been placed on the back of the topmost rail of the chair. As in the former feat, do not judge by its appearance that this is simplicity itself, but try it.

WINNING BY A NECK—NECK OR NOTHING.

Go down on both knees on the floor, place the elbow of either arm against one knee, and extend the hand and fingers straight out. With the other hand place a florin or penny on the floor, just touching the tip of the middle finger. The feat is to pick up the coin thus placed with the mouth without falling forward, a rather difficult task. By extending the hands behind the back, and drawing the coin towards you with the upper lip, the trick is made rather easier.

ATTRACTION AND REPULSION.

With a bowl of water on the table the following amusing experiment may be performed. Float a number of matches, the



ends of which have been burnt, on it in the shape of a star. By inserting a piece of soap, cut into a point, into the centre of the star, the matches will seem to be repelled from it, and will find their way into every corner of the basin. If, however, a piece of sugar be used, an opposite effect is at once produced, and the matches, as if they had a liking for sweets, are attracted to the piece of sugar and crowd round it.

WHEN A FRIEND INTENDS TO RISE.

Here is an easy method of discovering the hour at which a person intends to rise. Ask your friend to set the hand of a watch at any hour he pleases (not necessarily that at which he intends to rise) and to tell you the hour. In your own mind add 12 to this number. Then, telling your friend the total of the two sums, ask him to start at the hour preceding that at which he means to rise, and with the number which he first named, as a beginning, to count backward on the dial until he comes to the total which you gave him. Singular to state, the point he thus reaches is the hour at which he intended to rise. Here is an example:—Your friend wishes to get up at 7, and he places the hand of the watch at 11. To this latter figure you add 12, making 23, which number you ask him to count backward upon the dial, starting with 11 at the hour previous to that of rising—that is 6. By so doing he will stop short at 7.

THE OBSTINATE LEAF.

Take a piece of ordinary paper, of the shape shown in Fig. 1, and place it on the table, as illustrated in the engraving. Now, stand as close as possible to the paper, and



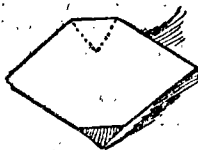
try with might and main to blow it over. The trick will be found to be well-nigh impossible. However, by standing about a yard from the table and giving a sharp, strong puff, the paper will turn over on its back quite readily. You must blow on the broad edge of the paper, not the end.

KICKING THE SPOOL.

Place a common cotton spool on the floor touching the heel of the left foot, next place the right heel against the left toe, and again the left heel against the right toe. You will now be three feet from the spool, but not necessarily a yard. Spin round on the ball of the left foot as on a pivot. Reach out the right foot and knock the spool over, afterwards bringing the right foot back level with the other. These movements, which should be performed without a pause between, must be accomplished without allowing the right foot to touch the ground after having spun round on the left foot.

INCONVERTIBLE.

Here is an amusing trick. Take a piece of stiffish paper and turn down two opposite corners as illustrated in the sketch. Place it on the table with the points downwards. Now try to overturn it without touching it. It will be found more difficult than you would think, but may be done by clapping the hands smartly opposite one of the folded angles.



HOW TO TELL A PERSON'S AGE.

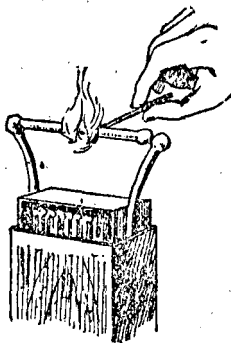
You must provide the person whose age is to be told with a piece of paper and a pencil, and ask her to put down the number of the month in which she was born—2 for February, or 7 for July, &c. Then she must double it; add 5 to it; multiply the result by 50; add her age to the product; subtract from that the number of days in a year (not a leap year), and add to the figure left 115. Ask her to tell you the result, and the two right hand figures will give her age, while the remaining figure or figures will be the number of the month in which she was born. Of course you have to trust to her honesty and accuracy in adding, subtracting, and multiplying correctly.

IMPOSING ON A COMPANY

A little innocent impudence often acts as a capital set-off for such a trick as the following. Take six little pieces of paper the size of a shilling, and carefully place three of them in a row on the back of the left hand. A puff of breath will, of course, send them fluttering to the floor. Taking the other three pieces, you inform your friends you are prepared to show that by the exercise of your magnetic powers you will be able to cause any of the papers indicated by the company to remain on your hand, blow they ever so strongly. The execution of the feat will, of course, be eagerly watched. One of the company names a paper, you coolly place a finger upon it, blow on your hand, and the other two pieces fly away.

A STARTLING TRICK.

With an ordinary match box and a few matches we can have a good deal of fun. Ar-

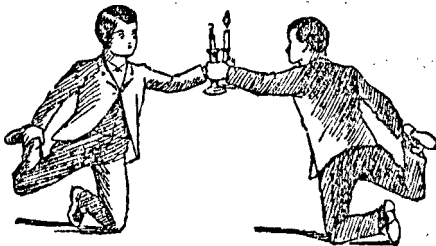


range an experiment, as shown in the illustration—a vertical match on each side of the box, and a horizontal one stretched between them. The puzzle is, by lighting the horizontal match at its centre, which of the vertical matches will catch fire first? Try it and see.

The following amusing little feat is certainly

NOT THE BEST WAY TO LIGHT A CANDLE.

Two persons kneel down on the floor facing each other. In his left hand each



takes a candle—one only of which is lighted—and with his right hand grasps his right foot, as illustrated. The feat now to be performed is to light the one candle by means of the other. It is well to spread a newspaper before the operation is begun.

SERVICEABLE HINTS

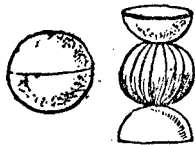
to Housewives, Mothers, Home Workers and others, are found on two pages especially for their benefit in the **PEOPLE'S FRIEND**. "For Wives and Daughters" is a Women's Club conducted by Janette, in which readers afford each other invaluable assistance whilst the "Household Page" is brimful every week of cooking recipes, knitting and crochet directions, instructions as to work in the house, and other practical matters. Nothing so useful for ordinary domestic requirements is to be found anywhere. The **PEOPLE'S FRIEND** is sold by all Newsagents; Price **ONE PENNY**.

AFTER DINNER AMUSEMENTS.

Here are a few simple tricks which may be performed with the aid of articles generally at hand at the dinner or supper table, and which can be exhibited before the cloth is removed. These will certainly act like a charm on the company when conversation is like to flag or become monotonous.

TO MAKE A WINE GLASS WITH AN ORANGE.

Cut through the peel, but not the pulp, with a sharp knife. Insert the thumb nail under the peel, and work round and round carefully, especially near the top and bottom, until all the peel is detached except about half an inch at both ends. Turn the two cups now made inside out. To make this effectively, a tough skinned orange should be selected, but, failing that, roll the orange between the hands to soften the rind. When properly made it should easily support another orange or apple.



ing that, roll the orange between the hands to soften the rind. When properly made it should easily support another orange or apple.

HOW TO MAKE A PIG WITH ORANGE PEEL.

Half of the peel only is required, but the orange should be cut in half, commencing at the part where the stalk had been. The following figure requires little explanation. The result is very interesting to children. Keeping the two sides close together, cut with a sharp penknife, as shown by the dotted lines for the body, ears, and tail, and insert raisin seeds for the eyes. The ears and tail when folded right over will remain in position. The pig will then stand nicely on the top of a plate of oranges or apples, or by inserting a piece of ginger beer wire a ring can be made by which to draw it along.

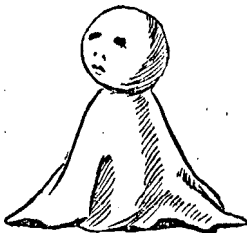


TO SPLIT AN APPLE INTO TWO EQUAL PARTS WITH THE FINGER.

Take an apple off the dish, and exchange it at the most convenient opportunity for a prepared apple, which have in readiness on the knees. This can be done by openly placing the chosen apple on the knees, as if merely to get it out of the way, when turning your plate upside down. The action is so natural that no one can detect your exchanging it for the prepared apple, which put on its side on the plate. To prepare the apple, take a needle and stout thread. Insert the needle in the side and take a stitch of about half an inch, re-insert the needle where it came out, take similar stitches all round the apple, cross the two ends of the thread and pull them carefully, when the thread will cut through the apple, leaving scarcely a trace on the skin. A smart blow of the fist on the finger placed on the apple will divide the apple as if it had been cut with a knife.

A TOUCHING PICTURE.

Take an orange with pale yellow skin, and cut in the rind a face wearing as doleful an expression as possible. Raisin stones will supply the place of the eyes. Now stretch a handkerchief tightly over the mouth of a wine glass, and upon it place the orange, with the features turned slightly to one side. By gently pulling the handkerchief from side to side, over the mouth of the glass, the orange takes on a rolling motion, and bears a striking resemblance to the aspect of a person in the agonies of seasickness.



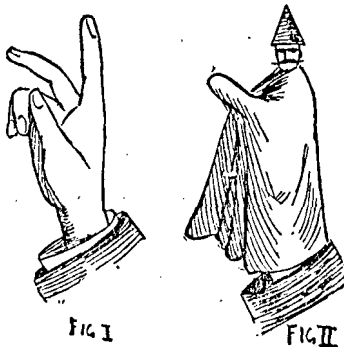
kerchief from side to side, over the mouth of the glass, the orange takes on a rolling motion, and bears a striking resemblance to the aspect of a person in the agonies of seasickness.

TO PEEL AN ORANGE WITHOUT LEAVING THE PITH ON.

Although this is very simple, it is little known. To do it, peel downwards from the stalk end, and the pith will be taken away with the peel.

THE LITTLE CONJURER.

He is made by holding the hand in the position indicated in Fig. 1. The front of the forefinger is painted to indicate the face of a man, and upon the top of the finger is placed a twisted cone of paper, coloured in any style to suit the fancy. The robe is made with a handkerchief, either white or



coloured, draped over the hand in the manner illustrated in Fig. II., the middle finger being used as the arm of the conjurer. By holding the figure sideways, a very good representation of a conjurer is obtained, and if the performer has at his command some comical patter in the way of jests, prophecies, conundrums, &c., and accompanies his conversation with judicious nods and twists of the head of the tiny magician, he will be successful in producing a very laughable diversion.

FUN WITH CLOTHESPINS.

It is wonderful how much amusement can be derived from such common things as clothespins. They can be dressed up in all sorts of uniform, so as to represent a company of soldiers, sailors, policemen, or anything else. For instance, let us make a company of soldiers. First cut out and sew up little red trousers, each leg separate, allowing plenty of stuff at the top to lap over well at the waist. Tuck them on with tiny tacks. A blouse of blue must then be cut straight, and drawn tight around the neck of the clothespin. Sew with silk doubled, and your work will stay. A bit of ribbon, red or white, around the waist, will represent a belt. A little round cap of red can be pasted or tacked on the head, and

adorned in front with a small feather or gilt paper star, or both. A gun cut out of brown pasteboard is to be tacked at the side. Faces must be drawn on each soldier—stiff, prim faces, with tiny moustaches. The captain should be distinguished by a stripe down the side of his trousers, a broader belt, epaulets, and a sword instead of a

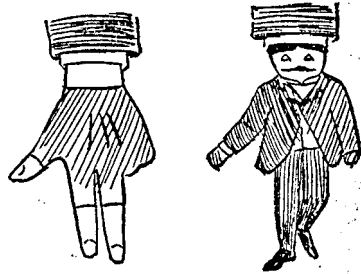


gun. If you wish to take the trouble, you can add sleeves to the blouse, and insert little paper hands at the wrists. The sewing need not be very carefully done, and the bottom of blouse and trousers can be cut straight without hemming. Use tacks wherever you can.

Other pins may be dressed as dolls. Some of them may be demure-like housewives, with sensible calico frocks drawn up around the necks, and confined around the waists with white aprons, small white caps on their heads, and brooms fastened at their sides. To make the broom, tie a few feathers to the end of a match. Some can wear walking costumes of cloth, or silk skirts, with shawls or capes over the shoulders, and bonnets of silk adorned with gay feathers or bows on top. Some may be dressed as babies, with long white dresses, sashes, and long white caps, some as nuns, with black dresses and black veils. Each must have a face as appropriate to the costume as you can make it. Dresses which are tacked on, or folded over, or pasted down, or tied around with ribbons, do not require much experience in the making.

A SPRIGHTLY DANCER.

Many of our readers will doubtless be acquainted with this amusing little individual, but for the benefit of those who are not we venture to introduce him. Cut off parts of the fingers of an old kid glove, and sew upon it pieces of coloured material to resemble a jacket and vest. Mittens, sox, and shoes have next to be made and fitted on, and a

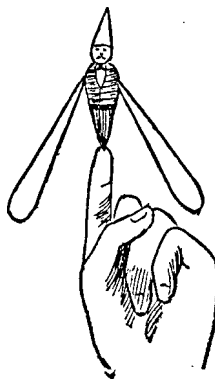


small collar adjusted round the neck. Now paint a face upon the back of the wrist with water colours, and the dancer is ready for the stage. The fore and middle fingers, of course, represent the legs, and as the fore-finger is shorter than the middle, the boot should have some stuffing inside to lengthen it. When the dancer trips it on the light fantastic toe to music, on a table, the effect is most comical, yet realistic.

THE WINGED ACROBAT.

Out of a piece of yellow pine, or other soft wood, two or three inches in length, carve roughly the figure of a man. His body must be shaped like a long pear, coming almost to a point at the bottom. You will see, therefore, that we are not exactly imitating nature, but are striking out a new departure in the human form. The features of the

face may be traced in ink or colour, or, if the sculptor has sufficient skill, may be carved in the wood. Instead of arms like those usually worn by boys and men, you have to provide your figure with a couple of oar-shaped blades of equal size and weight, fastened one in each shoulder, as illustrated. They may be made



of thin wood, or of tin, or sheet zinc. This completes the mannikin, with the exception of his decoration, which, however, we leave to the taste and ability of our readers. If the figure has been made "true"—as carpenters put it—you should be able to make him stand erect

on the tip of your finger, and, by blowing upon his "wings," to make him revolve at a rapid rate. You should take care that you do not make the end of the figure too sharp, otherwise the tip of your finger may suffer.

ORNAMENTS FROM LOBSTER SHELLS.

There is a use for everything. But who would imagine that anything of utility could be made from such an extraordinary article as a lobster shell? Yet a little ingenuity, combined with neat fingers, may produce from the shell of a lobster very pretty little articles, which are certainly more ornamental than useful, but which will repay the trouble spent upon them. For instance,

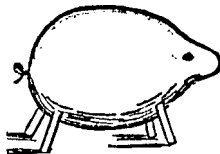
having boiled the lobster, and thoroughly removed from the shell all fleshy matter, one of the big claws, without the upper jaw, will serve as the body of a little soldier (the red colour of the shell is appropriate). Another big claw, but not so long, will serve as a head when provided with painted eyes and hair and a little



cocked hat and feather. Connect the head to the body as securely as possible, and conceal the join with a stiff military-looking collar. Arms and legs can be constructed from the smaller claws, and fixed to the body with wires; and as an additional precaution, the legs can be strengthened by slim iron pins fixed in the stand behind them, and fastened to them by threads. As in the illustration, the little figure may now be provided with a miniature rifle, and when nicely varnished will present quite a tidy and soldier-like appearance.

THE LEMON PIG.

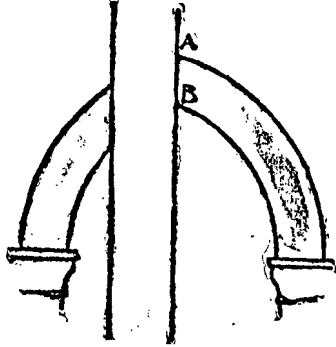
A very comical little fat pig may be made out of an ordinary lemon. Select one with a projecting end, to form the head and neck of the pig. The mouth and ears are made by cutting the rind with a pen-knife. The legs are pieces of lucifer matches, and the eyes are either black pins or grape stones. A small piece of string pushed under the skin, and curled with the fingers, forms the tail. The pig may then be passed round upon a plate for the admiration and amusement of the company.



SOME OPTICAL AND OTHER ILLUSIONS.

THE GOTHIC ARCH.

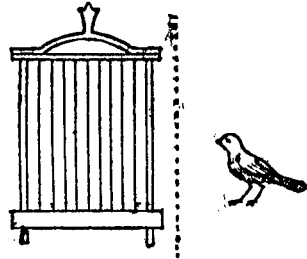
The sketch represents a Gothic arch cut in two, by a straight pillar, on one side of the apex A. To the eye the sides of the



arch seem to have very different curvatures, but by producing the arcs on the left side of the pillar they will be found to run naturally to the points A and B, and the arch will at once assume a look of proportion.

THE BIRD IN THE CAGE.

Here is another optical illusion. Place the edge of a visiting card or a square piece of paper along the dotted line between the



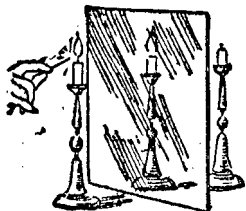
bird and the cage, and bring the eyes down to the upper edge. After a moment's watching, the bird will appear to change its position and enter the cage.

THE DISAPPEARING WAFERS.

Take three wafers of different colours about the size of a sixpence (small circular pieces of paper will do just as well), and stick them on the wall, just on a level with the eye, and about six inches apart from each other. Now take up a position about a yard away from the wall, and fix both eyes steadily on the centre wafer, and you will see all three plainly. But on closing the right eye, and still keeping the gaze of the other on the middle object, that on the left side will disappear from view; or when the process is reversed, and the left eye closed, the right-hand object will become invisible. If, in the first instance, after closing the right eye, the left optic is directed from the centre wafer to that on the right, the one on the left will come into view once more.

A CANDLESTICK ILLUSION.

You have no doubt often observed that when sunlight falls at a certain angle upon a pane of glass the latter possesses the properties of a mirror. This fact may be made the basis of a very pleasing optical illusion. Upon each side of an upright piece of glass place a candle set in similar candlesticks, and of equal height. Allow the sunlight to strike upon the glass in the manner indicated, so that objects are reflected in it as in a mirror. Instead of a real candle on the other side of the glass, you will only see the reflection of the other. Taking advantage of this fact, you can undertake that by lighting the candle on the near side of the glass you will also ignite that on the other side. When you apply a light to the first candle, so perfect will be the reflection that the truth of your statement will appear borne out.

**A TRANSPARENT HAND.**

Do you wish to be able to see through the palm of your hand? All you require is a



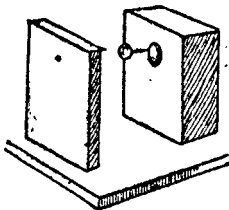
sheet of stout writing paper, about 4 inches long, and rolled into a tube about an inch in diameter. Take the tube in the right hand, and bring its side against the edge of the left hand, which should be fully opened and have the palm upwards. Keep both eyes open. With the right, look through the tube, and with the left look steadily at the left hand. Sure enough you will see a circular hole right through it. That the illusion may be perfect, you must take care that you have the left eye fixed on the hand at the same time that the right eye is looking through the tube.

ESTIMATION OF DIAMETERS.

A threepenny piece, when seen a short distance from a penny, looks as if it was more than several diameters smaller. Request any one to guess how many threepenny pieces can be placed flat upon a penny (one deep only) without the silver coins projecting over the edge of the bronze coin, when the answer will likely be four, or even five, and great will be the surprise when they find it is impossible to put more than one on the penny, as the diameter of a threepenny piece is more than five-eighths of an inch, and that of a penny under one inch and a quarter.

HALFPENNY ILLUSION.

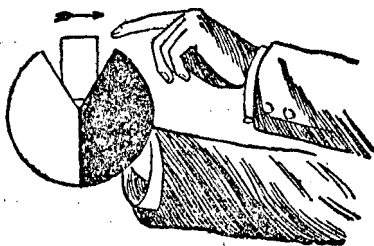
Upon the bottom of a cardboard box fix a penny, "head"-side uppermost. Close by the rim of the penny thrust through the cardboard a pencil, on the flat end of which a halfpenny has been fastened by means of sealing-wax. It is our intention to show how these two coins may be made to appear to the eye of exactly similar size, and this we accomplish by an optical illusion.



Set up the lid of the box at a short distance from the box itself, and at a convenient height make a neat pinhole, through which the eye can discern objects clearly. Now, looking through the hole, it is easy, by some little adjustment of the pencil—should that be necessary—to give to the coins the appearance of being precisely of the same diameter, and if the halfpenny is brought nearer to the eye it may even be made to appear larger than the penny.

COLOURED CARD TRICK.

Take a piece of white cardboard and, after you have painted half of it black, cut out a portion, as shown in the accompanying pic-

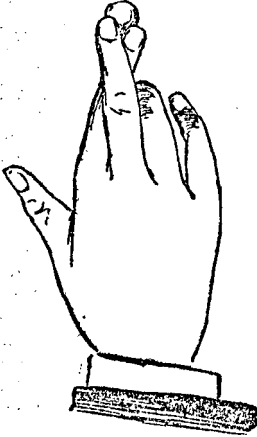


ture, and then, through the middle, stick either a long nail or a wooden peg, which has a knob at the top, so that you may be able to turn it.

Now, if you hold a green card behind the place where you have cut out a portion, and then turn the cardboard, the green card will seem to be red, and the more light is thrown on it, the redder it will appear. In like manner a red card will appear green and a piece of blue paper will appear yellow. Even more startling effects than these can be produced. For example, a figure with blue hair, a green face and crimson clothes, will appear behind the revolving cardboard, as though it were altogether of natural colours, for its hair will be blonde, its face flesh coloured, and its clothes greenish blue. Similarly, if a blue flower with red leaves is placed behind the cardboard the flower will appear yellow and the leaves green.

TWO MARBLES TRICK.

Another good trick is to blindfold a person and ask him to cross the middle and index fingers as shown in the illustration. Then place a marble on the top of his



fingers. It will not only keep in position so long as the hand is kept steady, but he will positively assure you that he is actually holding two marbles in this position, for the sensation is that of touching a couple.

THE "ADHERING" COIN.

Optical illusions are not the only ones by which persons can be deceived, as the following neat trick clearly shows. Take a piece of money and tell some one that if he let you press it to his forehead for a few seconds he will find it impossible to remove it without using his hands. If he laughs at



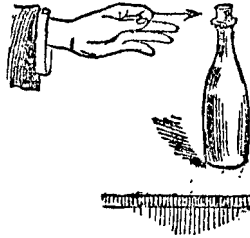
you, and tells you to go ahead, step behind him and press the money to his forehead for ten or twelve seconds. Then remove your hand and bid him get rid of the coin if he can. He will shake his head and make grimaces, expecting every moment to see the coin fall to the ground, but this he will never see, and for the excellent reason that when you removed your hand you also removed the money.

THE DECEPTIVE PILE.

You have no doubt been asked to indicate on the wall with your finger how high the crown of a silk or tall hat will reach when placed on the floor. The uninitiated will generally point about twelve inches from the floor, instead of about five inches, or more than double the height. Here is a similar trick not quite so well known. Hold up a shilling, and ask some one to state how many shillings can be placed one upon another to make a pile which will reach to the top of the shilling when placed beside the pile on its edge, or a number equal to the diameter of the shilling. As a rule, the answer will be between six and ten. Very few will dare to answer as high a number as sixteen, the correct number. This trick can be varied by using pennies or other coins.

THE EYE DECEIVED.

Set a cork upon the mouth of a bottle, and endeavour to strike it off with a jerk of the thumb and forefinger, darting the hand



forward while doing so a distance of several inches. The fear of the fingers being hurt by coming in contact with the bottle will, in many cases, cause the performer to raise his hand too high, so that it misses the cork entirely.

For **WINTER EVENINGS**
and **SUMMER DAYS.**

AUNT KATE'S PENNY STORIES

(Illustrated.)

Clever, Bright, Gay, and Charming.

40 Pages each Complete.

PRICE ONE PENNY.

SOLD BY ALL NEWSAGENTS.

SOME SIMPLE EXPERIMENTS.**INVISIBLE WRITING.**

Make a very strong solution of nitrate of potash (saltpetre), then with a brush paint on an oblong-shaped piece of paper (with a thinnish outline) some wording, ornament (or face), &c., taking care to lead the line (solution) to the edge, and there mark a small cross to show place of starting. Now lay aside to dry. Better make a stock, varying the subjects to make them as interesting as possible. When complete they will appear to be plain bits of paper, with a cross in the corner. When performing, light a match, blow out, and with the glowing end start the fusing at the cross, then slowly the outline will fuse its way into the design formerly drawn on it. Better fold a narrow margin all round at right angles, so as to raise the paper up a quarter of an inch from the ground, in order to support the combustion.

FOUR LAYERS OF LIQUIDS.

Fill a longish tumbler $\frac{1}{4}$ full with cold water, then pour on $\frac{1}{4}$ boiling water gently; if properly done, the warm water will remain on the top (the warm water being heated expands, and is thus lighter). The beauty of this trick is better seen when the water is coloured. To improve on this now pour on some oil, which will make another layer; on the top of this again pour some methylated spirit (spirits of wine). When this is properly performed you will have four distinct liquids, one on the top of another.

EATING FIRE.

Obtain some tow, teasing out an ordinary clothes rope will do. Light a few fibres, sufficient simply to let it fuse, cover this right over now with more tow slightly damped, and insert into the mouth. Inhale through the nose, and exhale through the mouth. Sparks of fire will proceed at a marvellous rate from the mouth. This is a perfectly harmless trick, and with a little practice one may become quite an adept at it. Further improve on this trick by placing a few small coins in your mouth along with the tow, and after the fire is out spit out the money to the great wonder of the surrounding company.

CONVERTIBLE SUBSTANCES.

Take a feather and dip it into muriatic acid, and rub it on the inside of a glass tumbler, then take another feather dipped in liquid ammonia, and rub it on the inside of another tumbler; each of the glasses will have a very pungent smell; but upon holding the one over the other for a very few seconds, dense fumes will arise which have no smell; or, by merely letting them stand near each other dense fumes will form between them. This experiment also shows that two invisible substances produce one that is visible. The visible substance formed is sal-ammoniac.

THE MAGIC WHIRPOOL.

In a basin of perfectly clean water drop a few chips of camphor. These will dart about in a wonderful manner. Should there, however, be any grease or dirt in the water, this experiment will not work. Thus, should you wish to stop the action drop in grease of some sort, and the motion will immediately cease; sometimes the simple dipping of the finger in the water suffices. If this does not work wash basin out with hot soda and water, and then rinse out with cold water to take away all traces of grease. (The tap itself may carry sufficient grease to spoil this experiment!)

A GHOSTLY LIGHT.

In a bottle with some spirits of wine put some salt; cork up, shake, and let it stand for a few hours. Pour a little of this liquid in two or three saucers, lids of coffee tins, &c., and in each likewise lay some cotton-wool or tow. Lay round the table, turn out the gas, and light. A wonderful pale light is produced—the whole surroundings will be altered. People with red complexions will appear perfectly black, pictures will lose all their colours, and, in fact, everybody and everything will assume a ghastly and pale appearance which is highly amusing, causing endless fun.

WATER THAT WILL NOT SPILL.

Fill a wine glass over-full with water, that is, as full as it possibly will hold without spilling. Now sprinkle fine table salt in it. You will manage to fill it $\frac{1}{2}$ with salt without spilling any water.

MAGICAL TRANSMUTATIONS.

Infuse a few shavings of logwood in common water, and, when the liquor is sufficiently red, pour it into a bottle. Then take three drinking glasses, and rinse one of them with strong vinegar; throw into the second a small quantity of pounded alum, which will not be observed if the glass has been recently washed, and leave the third without any preparation. If the red liquor in the bottle be poured into the first glass it will appear of a straw colour, if into the second it will pass gradually from blueish grey to black, when stirred with a key, or any piece of iron which has been previously dipped in strong vinegar. In the third glass the red liquor will assume a violet tint.

TWO MAGICAL FIGURES.

Make two figures, of any shape or material you please, insert in the mouth of one a small tube, at the end of which is a piece of phosphorus, and in the mouth of the other a tube containing at the end a few grains of gunpowder, taking care that each be retained in the tube by a piece of paper. If the second figure be applied to the flame of a taper it will extinguish it, and the first will light it again.

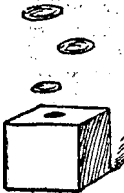
A MAGIC DRAWING.

On a piece of smooth glazed paper or card make a drawing of any article (in outline) or write or print any word, with a mixture of finely powdered chalk, water, and gum-arabic. When the tracing dries, the outlines will be almost invisible, but on rubbing the card with coloured crayons the colour will adhere to the lines, which have a rough surface, but not to the glazed surface of the card, and the outline is brought out with great clearness.

A most beautiful and instructive scientific experiment, known by the name of

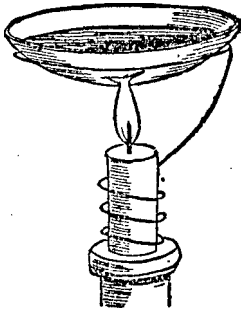
VORTEX SMOKE RINGS,

is productive of almost endless amusement and delight. Prepare a light box of cardboard, about $4\frac{1}{2}$ inches in length, by the same breadth and the same depth. In the centre of one end make a circular hole, $\frac{3}{4}$ inch in diameter. Fill the box with smoke—either the fumes of tobacco blown from the mouth, or the smoke from a smouldering piece of brown paper. Then by making a series of gentle but rapid taps upon the end of the box opposite the hole, a succession of revolving and curling rings of smoke may be made to emanate from the box.



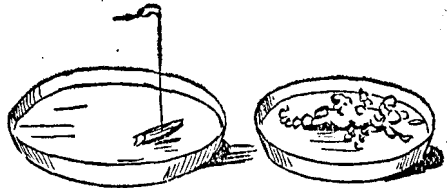
TO BOIL WATER IN PAPER.

An answer is given to the question how may you most easily boil water in the following experiment, for which the only requirements are a candle, a piece of iron wire, and a piece of strong paper. Having put the candle in a candlestick, wind one end of the wire tightly round it several times, and bring the other end round in a curve—as illustrated—finishing by forming it into a ring which should come directly over the flame of the candle, and a short distance above it. The ring is the holder for the “kettle”—the “hob,” so to speak. The “kettle” itself is made out of the paper! Cut out a disc four or five inches in diameter, and give it the form of a saucer by pressing it between the surface of a cricket or golf ball and the hollow of the hand. Pour some water into the “kettle,” light the candle, and in the course of a short time the water will boil.



CAMPHOR IN WATER.

The peculiar behaviour of camphor when placed upon water can be taken advantage of for producing some very amusing results. Camphor, being an oily body, does not mix with water; on the contrary, it seems to have a very repulsive effect when placed in contact with it. For instance, if a small



piece be placed on the stern of a little tin or wooden boat, so that it may be in contact with the surface of the water, the repellent action at once sets in, and the boat is urged forward. For this experiment the water should be hot. Again, if a number of pieces of camphor be placed together upon the surface of a basin of water and arranged in the form of some insect or reptile, a very life-like effect will be produced when the pieces of camphor set themselves in motion. Head, legs, and tail move in lifelike unison, and the white crawling creature might easily be mistaken for one in actual life.

MAGIC TRACINGS.

We have all seen those advertisement papers which, when a light is applied to a certain spot, turns out the name of the article wanted to be made known. Capital amusement is to be got by an application of the principle on which these are manufactured. Get a piece of thin paper, and with a strong solution of saltpetre trace upon it the names of yourselves or friends, the forms of animals, and so on; thoroughly dry, and then apply the end of a red-hot wire to a part of the tracing. The fire will do the rest.

AN OLD METHOD OF TELLING TIME

which is said to be reliable, is here given. Sling a coin (a shilling or a sixpence) at the end of a piece of thread, by means of a loop. Place an empty goblet on the table; then resting on your elbow, suspend the coin in the goblet, holding the end of the thread between the forefinger and thumb, and taking care that it passes across the ball of the thumb. If you have a steady hand, the coin will of course come to rest, but, strange to say, it will soon begin to vibrate like a pendulum, and after a few seconds will chime the nearest hour on the side of the goblet. Its vibration will then cease, and the coin will once more become stationary.

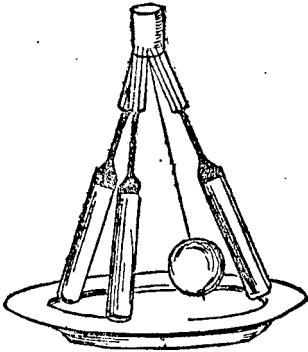
THE STRENGTH OF THE BREATH.

People have very little idea of the extraordinary effects produced by the force of the breath. It is well illustrated in the accompanying experiment. Near the edge of a table lay a long and narrow airtight bag of thin, tough paper, the mouth towards the operator. Then place upon the bag two or more light books. To upset

these by blowing in the bag will be found very easy; but the weights may be increased until the volumes are of goodly size, and then the performance will present a very extraordinary appearance.

A GREAT EXPERIMENT ON A SMALL SCALE.

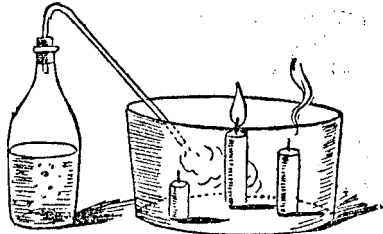
A very easy method of performing an experiment which is held to demonstrate the revolution of the earth is shown in the accompanying sketch. Take a small apple, and through its centre pass a wooden match,



one end of which is sharpened to a fine point. To the other end of the match tie a silk thread, the opposite extremity of which is attached to a pin stuck through a cork. The pendulum is completed by erecting it by means of forks in the manner illustrated. Two little ridged heaps of sand being placed at opposite sides of the plate, you can tell by the marks left when the pendulum is swinging steadily, and in the same plane. When you succeed in this, gently revolve the plate, and you will observe, by the manner in which the match-point marks the sand that the plane in which the pendulum is swinging remains unaltered. In the more elaborate experiment the revolving plate is replaced by the revolving earth, and the pendulum is of enormous length. The motion of the globe is indicated by the angles of the strokes in the sand, the pendulum having swung in exactly the same plane.

A DEAD GAS.

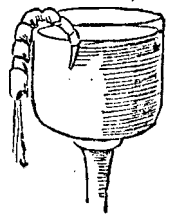
It does not require a very profound knowledge of science to understand that all gases do not support life, and that, indeed, many gases kill out or suffocate anything living that is placed among them. Thus, coal gas, which we use for lighting up our houses, is poisonous to life. It would suffocate us in a very few minutes. And so there are gases which will not support combustion. They do not contain any or enough of the life-sustaining element—oxygen. Such a gas is carbonic acid, and its chief properties or characteristics may be illustrated in the



following simple manner:—In a good-sized bottle place a quantity of washing soda, and pour upon it—just immediately before commencing the experiment—a quantity of strong vinegar, until the mass begins to effervesce. This is a sign that it is evolving carbonic acid gas. Supply the bottle with a well-fitting cork, having a hole down its centre, through which passes a glass tube bent (in a gas flame) to the shape indicated in the drawing. Allow the lower end of the tube to dip into the mouth of a large jar or basin in which are set three or four lighted candles of different lengths, the top of the tallest being about an inch beneath the level of the brim. The gas escaping from the effervescing mixture in the bottle finds its way through the tube into the basin, and, being much heavier than air, sinks to the bottom of the receptacle. And now is witnessed an interesting process. As the volume of gas in the basin increases, gradually displacing the air, the candles are one by one extinguished by the rising fumes, which refuse to support combustion, and any attempt to relight them while the basin is full of the gas will be futile.

A SHRIMP SYPHON.

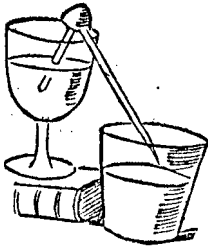
Here is an interesting trick performed with a shrimp. Hang one of these curious creatures, soaked in water, over the edge of a wine-glass filled with water, when, on the principle of the syphon, it will drain the contents of the glass until the water stands at a level with the end of the shrimp's tail



The following shows another

SIMPLE FORM OF SYPHON.

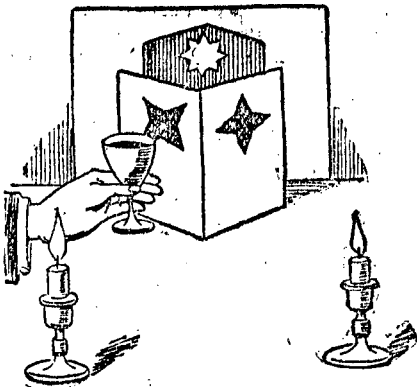
and is illustrative of the pressure of liquids. Take a chestnut, or other nut with a large kernel, and in it bore two holes at right angles to each other and meeting neatly inside the nut. In each hole insert a straw, one of them being about twice as long as the other. Make the joints air-tight by means



of soap or wax. Immerse the whole in water until the tubes are full of water. Place a finger on the end of each straw, put the short leg in a tumbler of water, release the finger, and the water will begin to flow from the tumbler, up the short tube, down the long one, and into a dish placed to receive it. The end of the short tube must always, of course, be kept under the surface of the water.

COMPLIMENTARY COLOURS.

The following is one of many beautiful illustrations of the law of complimentary colours. The arrangement of the apparatus, —if such it can be called—is shown in the sketch. Two lighted candles are placed in the foreground, opposite a sheet of white paper which has been tacked on the wall. Between the candles and the paper you interpose a sheet of cardboard, doubled down the middle so that it stands unsupported.

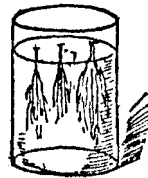


In one of the leaves of the cardboard cut a four-pointed star, the axes of which are horizontal and vertical. Exactly opposite this, and in the other leaf, cut out a second star, the axes of which make angles of 45 degrees with those of the first star. You must now arrange the relative positions of the candles and the cardboard, so that in the middle of the shadow thrown on the

screen by the latter the luminous stars shall lie one upon another, producing the effect of a star with eight points. Now comes in the colouring. Cover one of the star-openings with a piece of coloured glass, or a wine glass filled with coloured liquor. If the gas of the liquor is green, the eight points of the star will be red and green alternately, and in the centre will be a smaller white eight-pointed star, thereby giving the three colours—red, white, and green.

A BEAUTIFUL EFFECT.

Some marvellously pretty effects are to be produced by the solution of aniline dyes. These can be obtained in suitable quantities at a chemist's shop, and the experimenter



does well to provide himself with dyes of six or seven different colours. One of the prettiest experiments that can be performed with them is to soak

several small pieces of clean white blotting-paper in solutions of different dyes, and when they are dry cut them into little discs of the size of a threepenny. Then gently drop them one by one into a glass jar containing water, and the colour will seek its way downwards in the jar in long, irregular, and brilliant streaks. The effect is exceedingly beautiful.

DOTS AND DASHES.

Cut a strip of paper 2 by 15 inches. Draw a line on both sides along the exact middle. Make the line on one side a series of dots, and on the other a series of dashes. Paste the ends of the paper together so that the line through the centre will be continuous, but join the dotted line to the line of the dashes. With a pair of scissors carefully cut through the middle line all the way around the rings. How many rings this will make you will see for yourself.

The People's Friend

Contains

Splendid SERIAL and SHORT STORIES.

BIOGRAPHICAL and other SKETCHES.

TALES of SCOTTISH LIFE and CHARACTER.

HOUSEHOLD HELPS and HINTS.

SCIENTIFIC and USEFUL RECIPES.

CIVIL SERVICE COLUMN WEEKLY.

&c. &c.

Price ONE PENNY Weekly

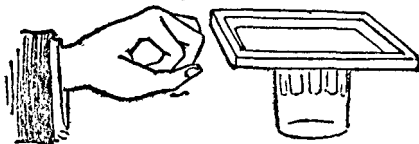
EXPERIMENTS IN ELECTRICITY.

In the rapid and mighty development of electricity, one is apt to forget how humble and insignificant the science was in its beginnings. Every schoolboy knows about Watt's great discovery of the power of steam. He was a boy at the time, the issuing of steam from a kettle was an everyday occurrence, but the thoughtful observation of this simple fact set on its way the development of one of the greatest and most useful of forces. And so with electricity. We do not know who discovered it, but its beginnings were very insignificant. In its simplest and most harmless form electricity may be produced by the youngest of our readers, and we propose to show them how to do it. The experiments should be both instructive and entertaining. Simplest of all, the apparatus for producing electricity is

A PIECE OF BROWN PAPER,

say, about a foot square. Dry it thoroughly before the fire, and while it is still hot draw it smartly several times between the arm and side. The paper is then charged with electricity. This is made evident if you bring it close to a quantity of bran, small pieces of paper, or feathers, which have been sprinkled on the table. They will fly up and stick to the paper. Charge it again as before, and bring it near a wall, when it will be strongly attracted, and may even adhere to the wall. Charge once more, this time placing the paper immediately above the head. The hair will be felt rising on end, and if you refer to a looking-glass you will be a little astonished at the sight which meets your eye.

While using the brown paper as a means of producing electricity, you may hear a slight crackling noise, or even observe small flashes of blue light pass between your hand and the paper. This is nothing less than the electric light, the same as the blind-



ing lightning flash, or the dazzling arc lamp which blazes in our streets and on our public buildings. To make its presence more apparent, take a tumbler, dry it thoroughly, allow it to remain before a fire for some time, and place it, mouth downwards, upon a table. Then place upon it a perfectly dry small metal tray. Upon this again lay a piece of brown paper, which has just been electrified in the manner described above. You have now a simple electric machine. If the knuckle of one of your fingers is now brought in proximity to the tray, a bright electric spark will pass between them, and if the experiment is performed in a darkened room, the effect will be all the prettier.

A HOME-MADE MAGIC LANTERN.

Stretch a white cloth against a wall in a darkened room. Set a lighted candle opposite to it on the table, with a book or a similar object intervening, so that the light will not directly strike the cloth. Hold a mirror sidewise before the candle in such a position that the reflection of it will be thrown on the cloth. Hold a paper figure between the candle and the mirror, and the mirror will reflect it on the cloth. By moving the figure forward between the candle and the mirror the figure will appear to walk more or less leisurely. Several figures may be used at the same time. Other motions will readily suggest themselves to the imaginative mind. The figures as they appear on the white cloth will be silhouettes.

CURIOUS MISHAP AT A CONJURING PERFORMANCE.

As we have now got to the conclusion of our tricks, we may say that there are many little mishaps which beset a conjurer, and against which he cannot take any precaution. He must just grin and bear these things.

A celebrated wizard tells some very interesting stories of his adventures on the stage. Among them he relates how one of his most ingenious tricks had an unexpected ending, more amusing to the spectators than to the performer.

He was giving a performance at a Christmas party, and had borrowed a ring from a lady in the audience, jokingly requesting her to place a value upon it. This she did, pricing it at four pounds. He then tied a piece of ribbon to it, placed the ring on a plate in full view of the audience, and proceeded to make an omelette. Having mixed the ingredients, he threw the ring and ribbon into them, and, adding a little spirit, he went through the make-believe of cooking the omelette in a pan.

On setting fire to the spirit there is usually a blaze, and a lid is placed upon the pan. When the lid is removed, instead of an omelette, a dove is found with the identical ring attached to its neck by a ribbon.

All went well until the performer removed the cover of the pan. There was the dove, sure enough, with the ring tied to its neck; but during the applause of the audience, the dove flew up, winged its way round the room, and dashed out of an open window. The conjurer never saw it or the ring again.

He accordingly had to make the best of a bad bargain, and pay the lady four pounds as compensation for her loss.

FOR WINTER EVENINGS AND SUMMER DAYS.

FOR THE FIRESIDE AND THE SEA SHORE. .



AUNT KATE'S PENNY STORIES

(ILLUSTRATED.)

40 Pages each Complete. Price ONE PENNY.

SOLD BY ALL NEWSAGENTS.

The People's Journal

Scotland's National Newspaper. Weekly, One Penny.

CONTAINS:

Local, District, and General News.

Serial Stories by well-known Authors.

Helpful Hints to Housewives by Aunt Kate.

Political Articles.

Crisp Comments and Notes.

Prize Competitions.

Children's Column, by Dainty Davie.

OVER 1,000,000 READERS WEEKLY.

Sold by Newsagents Everywhere.

Publishers: JOHN LENG & CO., DUNDEE; and 186 Fleet Street, LONDON, E.C.

A LIBRARY IN THEMSELVES !

PEOPLE'S JOURNAL

HANDBOOKS

(FOR THE PEOPLE)



COOKERY BOOK (New Edition).
DRESSMAKING BOOK.
GARDENING BOOK.
HANDY BOOK of Useful Information
KNITTING BOOK. (New Edition).
MOTHERS' GUIDE.
ETIQUETTE BOOK.
DRAUGHTS BOOK.
LAW BOOK (Scots Law).
HOW TO READ, WRITE, & DEBATE.
POULTRY BOOK (new and revised Edition).
400 GOOD STORIES (Scotch Haggis).
CANARIES AND HOME PETS.
THE PEOPLE'S DOG BOOK.
HOUSEHOLD GUIDE.
HOME WORK, or Knitting Book No. 2.
THE CRICKET HANDBOOK (Annually).
THE FOOTBALL HANDBOOK (").
ALMANAC (Annually).
CONJURING and PARLOUR MAGIC.
SCOTTISH SONGS (with Music).

40 TO 48 PAGES

SOLD
EVERYWHERE

CLEAR ! CONCISE ! RELIABLE !