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## Introduction

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[^0]Is magic really dead, as is so glibly tongued by the pessimist? I should answer as follows: Yes, dead to the man without talent and originality, to the bungler, to the performer of mediocre ability, but very much alive to the genuine artist, the conscientious student. Never was there a better demand for up-to-date illusions and sleights. But there is a greater demand for brilliancy of execution, personal address and magnetism on the part of the performer. There is still plenty of room at the top.

The whirligig of time has brought many changes in the art magique. In the golden days of Pinetti, Torrini, Basco, Dobler, Philippe, Comte and Philadelphiawhen the secrets of the art were confined to but fewcumbersome apparatus and dazzling mise-en-scene were the order of the day. Robert-Houdin, 'the Father of Modern Magic," effected many reforms in the old school of conjuring. He did away with draped tables, brass and tinware cones, double-bottomed boxes and the like, designed for the evanishment of articles, substituting for such clumsy contrivances dainty gueridons and apparatus not suggestive of the purpose for which it was intended. It must have been a sight indeed to have witnessed one of Pinetti's shows: the stage giittering with wax lights fixed in handsome silver candelabra, magnificent vellvet hangings, and scintillating apparatus; with Pinetti, king of conjurers of the 18th century (pretender, like Cagliostro, to occult powers), garbed in the uniform of a major-general, his breast covered with decorations. All hail, Chevalier Pinetti, inventor of the second-sight, precursor of the rope-tying and handcuff manipulators of to-day, something of a charlatan, fascinating, witty, unscrupulous, we summon you from the shades to do you honor, though not forgetting your despicable conduct to the Comte de Grisy, better known to posterity as Torrini, the teacher of Houdin.

Improving (?) upon the classic school of RobertHoudin, the elder Frikell went to the extreme of simplicity. Following in the footsteps of the Danish magician, modern performers give what is known as a
"hand-bag show," because an ordinary hand-bag, or dress-suit case, will hold all of the paraphernalia for an hour-and-a-half show. In order to accomplish this, the conjurer is compelled to fall back on hand work almost exclusively. Thanks to the multiplication of handkerchief and flag tricks, billiard ball, card and coin moves, pretended second-sight, etc., etc., ample material is available to fill out excellent programmes of the nonapparatus school of magic, and a wonderfully clever school it is, too. Mr. T. Nelson Downs laughingly remarks that he carries his apparatus about in his pockets. And so with many other manipulators of coins, cards, etc. But a revival of the ancient school of conjuring seems to be in the air. Big illusions and apparatus tricks are coming into vogue rapidly. The demand upon the attention of spectators on the part of purely hand-work magicians is very great, and so there is a recrudescence of apparatus and illusions. A combination of legerdemain and apparatus makes the best programme after all. In this way one strikes a happy medium between two extremes.

Since the advent of M. Trewey, the great French fantaisiste, shadowgraphy has become very popular with conjurers, and deservedly so, for nothing is more entertaining than a clever exhibition of finger silhouettes.

I take pleasure in commending Mr. Hilliar's work on sleight-of-hand and shadowgraphy.

## CHAPTER I.

## PRELIMINARY OBSERVATIONS.

There is a vast difference between telling how a trick is done and teaching how to do it. The existing treatises, with few exceptions, do the former only. The intention of the present work is to do the latter also; to teach sleight-of-hand generally, as well as particular tricks; and to conduct the neophyte from the very A B C of the magic art gradually up to those marvels which are exhibited on the public stage. The student may rest assured that, if he will diligently follow the instructions here given, he will be able in due time, not merely to astonish his friends extempore with a borrowed coin or pack of cards, but to roll two rabbits into one, compel chosen cards to rise spontaneously from the pack, produce lighted lanterns from empty hats, and'bowls of gold-fish from empty pocket-handkerchiefs; in a word, to execute all those wonders which he has hitherto deemed the exclusive property of the public performer. There are, of course, different degrees of natural aptitude. "Non cuivis hominum contingit adire Corinthum.' It is not every one that can be a Robert-Houdin, a Buatier or a Downs, but, given the usual number of fingers and thumbs, fair intelligence, and a sufficiency of perseverance, any one who will may become at least a tolerable conjurer. Be it remembered, that we especially stipu:late for perseverance. A wizard is not to be made in a day, and he who would attain excellence must be content to proceed as he would with music, drawing, or any other accomplishment-viz.: begin at the beginning, and practice diligently until he attains the coveted dexterity. The student need not, however, wait the termination of the somewhat formidable course of study we have indicated, before he begins to astonish his friends; on the contrary, there are numerous tricks requiring very
little manual dexterity, which are yet, if neatly performed, brilliant in effect. These simpler tricks, for which we shall give full instructions, will supply the beginner, even at the outset, with a fair programme, which he may from time to time enlarge as he feels able to undertake more elaborate illusions.

The first rule to be borne in mind by the aspirant is this: "Never tell your audience beforehand what you are going to do." If you do so, you at once give their vigilance the direction which it is most necessary to avoid, and increase tenfold the chances of detection.

It follows, as a practical consequence of this first rule, that you should never perform the same trick twice on the same evening. The best trick loses half its effect on repetition, but besides this, the spectators know precisely what is coming, and have all their faculties directed to find out at what point you cheated their eyes on the first occasion. It is sometimes hard to resist an encore, but a little tact will get you out of the difficulty, especially if you have studied, as every conjuror should do, the variation and combination of tricks. There are a score of different ways of causing a given article to vanish, and as many for reproducing it; and either one of the first may be used in conjunction with either of the second. Thus, by varying either the beginning or the and, you make the trick to some extent a new one. The ability to do this readily is very useful, and among other advantages will enable you to meet an encore by performing some other trick having some element of similarity to that which you have just completed; but terminating in a different and therefore unexpected manner.

The student must cultivate from the outset the art of "talking," and especially the power of using his eyes and his tongue independently of the movement of his hands. To do this, it will be necessary to prepare beforehand, not only what he intends to do, but what he intends to.say, and to rehearse frequently and carefully even the simplest trick before attempting it in public. It is surprising how many little difficulties are dis-
covered on first attempting to carry into effect even the clearest written directions; and nothing but practice will overcome these difficulties. The novice may be encouraged by assuming, as he safely may, that the most finished of popular performers was once as awkward as himself, and were he to attempt any unfamiliar feat, would probably be as awkward still.

Before proceeding to the practice of the magic art, it will be well to give a short description of two or three appliances, which are of such constant use that they may be said to form the primary stock-in-trade of every conjurer. These are-a short wand, a specially adapted table, and certain secret pockets in the magician's dress. There are numerous other appliances of very general use, which will be explained in due course, but those we have named are so indispensable that we could hardly complete the description of half-a-dozen tricks of any pretension without a reference to one or the other of them. First in order comes

## THE MAGIC WAND.

This is a light rod of twelve or fifteen inches in length, and about three-quarters of an inch in diameter. It may be of any material, and decorated in any manner which the fancy of the owner may dictate. To the uninitiated its use may appear a mere affectation, but such is by no means the case. Apart from the prestige derived from the traditional properties of the wand, and its use by the wizards of all ages, it affords a plausible pretext for many necessary movements, which would otherwise appear awkward and unnatural, and would thereby arouse the vigilance of the audience at possibly the most critical period of the trick. Thus, if the performer desires to hold anything concealed in his hand, by holding the wand in the same hand he is able to keep it closed without exciting suspicion. If it is necessary, as frequently happens, to turn his back upon the audience for an instant, the momentary turn to the table, in order to take up or lay down the wand, affords the required opportunity. We most strongly advise the
would-be magician to cultivate from the outset the habitual use of the wand. Even where its employment is not absolutely necessary for the purpose of the trick, its use is in strict accordance with the character he professes to fill, and the dainty touch of the wand, for the supposed purpose of operating a magical transformation, assists materially in leading the audience to believe that such transformation did actually take place at that particular moment, instead of having been (as is really the case) secretly effected at an earlier period.

Readers of Lord Lytton's "Strange Story'" will remember what a prominent part the magic wand plays in that exciting narrative, and in a later work, "The Coming Race," the same writer has described a wand or rod which, by means of a mystic force called "vril," accomplishes unheard-of marvels, even to striking down an enemy at a distance by a flash of portable lightning. The modern magician has not got quite so far as this; but the flash, at any rate, is realized by what is known to conjurers as the "Firing'" Wand. Instead of using the prosaic pistol to induce some magical evolution, the performer simply waves his wand. There is a bang and a puff of smoke, proceeding unmistakably from the wand itself, which, on the post hoc, propter hoc principle, is naturally regarded as having produced the transformation.

The secret lies in the use of a special wand, brought on by the performer in place of the one he has hitherto been using, which it is made to resemble as closely as possible. Fig. 1 shows the external appearance of the wand, and Fig. 2 the same in section. On examination of the latter it will be seen that the wand (which is of brass, japanned in imitation of wood) has at one end a miniature pistol barrel, a, of very small bore, with a nipple, $b$, on its hinder end. This portion unscrews to allow of the placing of a percussion cap on the nipple. If much noise is desired, the barrel may be loaded with powder in addition, but the cap alone will make a very respectable report. The remainder of the length of the wand is occupied by a cylindrical piston, or "ham-
mer," $c$, which is normally forced forward against the nipple by the action of a strong steel spring, but may be drawn back at pleasure and so retained by forcing back the little stud, $d$, and pushing it into the slot, $e$, as shown in the complete view of the wand in Fig. 1. A quick sideways movement of the thumb releases $d$, which then flies into the position shown by the enlarged view in the same figure. The hammer strikes the nipple, and the explosion takes place.

The next appliance to which we must draw the student's attention is

## the magician's table.

There are plenty of good minor tricks which may be performed anywhere, and with little or no previous preparation, but as soon as the student has outgrown these humbler feats, and aspires to amuse his friends or the public with a prearranged seance, his first necessity will be a proper table. We do not now refer to the elab-


Fig. 1.

Fig. 2.
orate combination of traps, pistons, etc., which is used for stage performances. This will be duly described in its proper place. The table necessary for an average drawing-room exhibition differs from an ordinary table in two points only-its height, which should be six or eight inches greater than that of an ordinary tableand the addition of a hidden shelf or ledge at the back.

Its form and dimensions are very much a matter of fancy and convenience. For most purposes nothing is better than a spider-legged guerdon or tripod. If it is desired to make the table portable, the foot should be screwed into the top so as to be readily taken off and put on again, as may be required. In size the table may be eighteen inches square. At the back should be placed, about six inches below the level of the top of the table, a projecting shelf, six to eight inches in width and extending nearly from end to end. This shelf, which is technically known as the servante, should be covered with thick woolen cloth in order to deaden the sound of any object falling on it.

Some performers have a rim about half an inch high running along the outer edge of this shelf, while others, in place of the shelf, use a wooden tray, fixed in the same position, and one to two inches in depth. The manner of fixing the shelf is optional. In some tables it is made to slide in and out like a drawer; in others to fold up on hinges against the back of the table or itself to form the back. This latter is the most convenient mode, as the opening made by the flap when let down gives access to the interior of the table, which forms a convenient receptacle for necessary articles. In this case the upper part of the table is made box fashion-i. e., is bottomed throughout with wood on a level with the hinges of the servante, giving an inclosed space under the whole extent of the table. Over the table should be thrown an ordinary cloth table cover of such a size as to hang down about ten or fifteen inches at the front and sides, but not more than an inch or so on the side away from the audience. To prevent its slipping the cloth may be fastened on this side with a couple of drawing pins. Where traps are used and the cloth has therefore to be cut, the hanging cloth is dispensed with, and the table is covered with cloth glued on the top, with a margin round it, after the fashion of a card table, and this may be done if preferred, even where the table is without mechanism. The adoption of this plan allows of the introduction of gold mould-
ings or other ornamentation on the front and sides. In my opinion, unless there is some special reason to the contrary in the mechanical arrangements of the table, the plain hanging cover is preferable, as being least suggestive of apparatus or preparation. The precise height of the table is best determined by the stature of the performer. The servante, or hidden shelf, should be just so high from the ground as to be level with the knuckles of the performer as his arm hangs by his side; and the top of the table should, as already stated, be about six inches higher than this. It will be found that this height will enable the performer secretly to take up or lay down any article thereon without stooping or bending the arm, either of which movements would suggest to the spectators that his hand was occupied in some manner behind the table. One of the first tasks of the novice should be to acquire the power of readily picking up or laying down any article on the servante without making any corresponding movement of the body, and especially without looking down at his hands. If the performer is uncertain as to the precise whereabouts of a given article, he must ascertain it by a quick glance as he approaches his table, and not after he has placed himself behind it. From this moment he must not again look down; for if once the audience suspects that he has a secret receptacle behind his table half the mystery of his tricks is thenceforth destroyed.

An oblong box, twelve or fourteen inches in length by three in depth, well padded with wadding, and placed on the servante, will be found very useful in getting rid of small articles, such as coin, oranges, etc., as such articles may be dropped into the box without causing any sound, and therefore without attracting attention.

In default of a table regularly made for the purpose, the amateur may with little difficulty adapt an ordinary table for use as a makeshift. A common library or kitchen table, having a drawer on one side, and raised on four bricks or blocks of wood to the requisite height, will answer the purpose very fairly. The table must
be covered with a cloth, and should have the drawer pulled out about six inches (the drawer side being, of course, away from the audience) to form the servante. A still better extempore conjuring table may be manufactured in a few minutes with the aid of a good-sized folding baggatelle board. Place the shut-up board on a card or writing table (which should be six or eight inches shorter than the board), in such manner that there may be left behind it (on the side which is intended to be farthest from the audience), a strip of table six or seven inches in width. This will form the servante. Throw an ordinary cloth table cover over the baggatelle board, letting it hang down a foot or eighteen inches in front, and tucking its opposite edge under the hinder edge of the board, whose weight will prevent it from slipping. If the cloth is too large, it must be folded accordingly before placing it on the table. The table thus extemporized will be of a convenient height and will answer very fairly for the purposes of an ordinary drawing-room performance.

The conjurer, however, may be called upon to give a sample of his art when neither regular nor extemporized table is available; and even where he is sufficiently provided in this respect he will frequently have occasion to produce or get rid of a given article without retiring behind his table to do so. The wizards of a century ago met this necessity by wearing openly in front of them a sort of bag or apron, called in the parlance of the French conjurers a gibeciere, from its supposed resemblance to a game-bag. This was used not only to carry the cups and balls and other minor paraphernalia of the art, but for the purpose of procuring, exchanging or getting rid of any small article at the pleasure of the performer. In fact, this bag supplied the place of the servante, which was not then known. It is hardly necessary to observe that the gibeciere has been long since disused, and a performer who should now appear in a pocketed apron would run much risk of being taken for a hairdresser. Although, however, the gibeciere is
not now, as of old, worn openly, the conjurer of the present day is provided with certain secret substitutes, to explain which it is necessary to say a few words as to the magician's dress.
It is not very many years since the orthodox dress of the conjurer was a long and flowing robe, embroidered more or less with hieroglyphic characters, and giving ample space for the concealment of any reasonable sized article-say, from a warming-pan downward. The very last specimen of such a garment, to the best of our belief, was worn by the magician attached to the Crystal Palace, London. The costume de regueur of the magician of the present day is ordinary "evening dress." The effect of the feats performed is greatly heightened by the close fit and comparative scantiness of such a costume, which appears to allow no space for secret pockets or other place of concealment. In reality, however, the magician is provided with two special pockets, known as profondes, placed in the tails of his dress coat. Each is from four to six inches in depth and seven in width, and the opening, which is across the inside of the coat-tail, slanting slightly downward from the center to the side, is, like the servante, so placed as to be just level with the knuckles of the performer, as his hand hangs by his side. He can thus, by the mere action of dropping either hand to his side, let fall any article instantly into the profonde on that side, or take anything from thence in like manner. The action is so natural that it may be used under the very eyes of the audience, at very small risk of being observed; and if the performer at the same moment slightly turns his other side to the spectators he may be perfectly secure from detection. Some performers have also a couple of pochettes (small pockets) made $\rightarrow 1$ the trousers, one behind each thigh. These are generally used for purposes of production only, the profondes being still employed for getting rid of any article, which, indeed, is their primary purpose, for they were originally made too deep ("profonde," whence their name) to get articles easily out of them.

Many professors, in addition to the pockets above mentioned, have also a spacious pocket, opening perpendicularly, inside the breast of the coat, under each arm, for the purpose of what is called "loading," $i$. e., bringing a rabbit or other article into a hat, etc. Other pockets may be added, as the fancy or invention of the performer may dictate, but the above are those generally used.

It will also be found a great convenience to have an elastic band, about an inch in width, stitched around the lower edge of the waistcoat on the inside. When the waistcoat is in wear the band makes it press tightly round the waist, and any object of moderate size-a card or pack of cards, a handkerchief, etc.-may be slipped under it without the least risk of falling. Used in conjunction with the pockets before described, this elastic waistband affords a means of instantaneously effecting "changes" of articles too large to be palmed with safety, one hand dropping the genuine article into the profonde on that side, while the other draws the prepared substitute from under the waistband, a very slight turn of the body toward the table or otherwise sufficing to cover the movement.

With these few preliminary observations, we proceed to the practice of the art, commencing with the everpopular class of illusions performed by the aid of play. ing cards.

## CHAPTER II.

GENERAL PRINCIPLES OF SLEIGHT-OF-HAND APPLICABLE TO
CARD TRICKS.
Among the various branches of the conjurer's art none will better repay the labor of the student, whether artist or amateur, than the magic of cards. It has the especial advantage of being, in a great measure, independent of time and place. The materials for half its mysteries are procurable at five minutes notice in every home circle, and even in the case of those tricks for which specially prepared cards, etc., are requisite the necessary appliances cost little and are easily portabletwo virtues not too common in magical apparatus. Further, the majority of card tricks are dependent mainly on personal address and dexterity, and as such will always be highly esteemed by connoisseurs in the art.

The Cards.-The adept in sleight-of-hand should accustom himself to the use of every description of cards, but whenever possible in actual performance ordinary cards of the "steamboat" pattern should be used. In any case, it is well to use only the piquet pack of thirtytwo cards (the twos, threes, fours, fives, and sixes being removed), the complete pack being inconveniently bulky for sleight-of-hand purposes.

To Make the Pass. (Sauter la Coupe.)-The effect of this sleight, which is the very backbone of card conjuring, is to reverse the respective positions of the top and bottom halves of the pack, $i . e$. , to make those cards which at first formed the lower half of the pack come uppermost, when those cards which at first formed the upper half will of course be undermost. It is used by card-sharpers immediately after the cards have been cut, to replace them in the position which they occupied
before the cut, and from this circumstance derives its French name. There are various methods of producing this effect, some requiring the use of both hands, some


Fig. 3.
of one hand only. These we shall describe in due order, the first being the one universally adopted.
First Method. (With both hands.)-Hold the pack in the left hand lengthwise, with the face downward, as if about to deal at any game. In this position the thumb will naturally be on the left side of the pack and the four fingers on the other. Insert the top joint of the little finger immediately above those cards which are to be brought to the top of the pack (and which are now undermost), and let the remaining three fingers close naturally on the remaining cards, which are now uppermost. (See Fig. 3.) In this position you will find that the uppermost part of the pack is held between the little finger, which is underneath, and the remaining fingers, which are upon it. Now advance the right hand and cover the pack with it. Grasp the lower portion of the pack lengthwise between the second finger at the upper and the thumb at the lower end, the left thumb lying, slightly bent, across the pack. Press the inner edge of the lower packet into the fork of the left thumb, so that the two packets will be as shown in Fig. 4. Next draw away the upper packet by slightly extending the fingers of the left hand, at the same time
lifting up the outer edge of the lower packet, till the edges of the two packets just clear each other (see Fig. 5), when by the mere act of closing the left hand they will be brought together as at first, save that they will


Fig. 4.
have changed places. Do this at first very slowly, aiming only at neatness and noiselessness of execution. At the outsct the task will be found somewhat difficult, but gradually the hands will be found to acquire a sort of


Fig. 5.
sympathetic action, the different movements which we have described will melt, as it were, into one, and the two packets will seem to actually pass through each other. A slight momentary depression and elevation of the hands (apparently a mere careless gesture) in the act of making the pass will completely cover the transposition of the cards, which in the hands of an adept is invisible, even to the most watchful spectator.

The above is the most orthodox and the most perfect method of making the pass, and if the student be proficient in this he need trouble himself very little about the remaining methods, which are inserted chiefly for the sake of completeness, being very inferior in all respects. Wherever in the course of this book the student is directed to make the pass, this first method will be considered to be referred to, unless otherwise specially expressed.

Second Method. (With one hand.)-This is unquestionably the best of single-handed passes, and is known as the "Charlier pass."

The cards are taken in the left hand, supported by the tips of the second and third fingers and thumb, as shown in Fig. 6, the little finger taking up its position midway across the lower end of the cards and the first


Fig. 6. finger remaining extended. The lower half of the pack is now allowed, by a slackening of the pressure of the thumb, to fall loose into the hand, as in Fg. 7. The first finger then comes into play, and lifts the outer edge of the lower packet until it touches the ball of the thumb, as in Fig. 8. The second and third fingers now relax their pressure, thereby allowing the outer edge
of the upper packet (marked 1 in the diagrams) to pass the edge of the lower packet, as in Fig. 9. The first finger is again extended, allowing the two halves of the pack to coalesce, and the pass is made.

In description this succession of movements may sound complicated, but in actual practice it is per-


Fig. 8.


Fig. .
formed instantaneously. A backward or forward sweep of the arm will assist in covering the movement, which would be visible without such cover.

The Charlier pass is of constant utility. Among other things it affords a ready and natural means of gaining possession of a drawn card. A card having been chosen, the performer says, "Now, sir (or madam), will you put the card back in the pack?" He offers the pack lying in the palm of his left hand, but as he does so opens it bookwise with the thumb, thereby bringing it into the position shown in Fig. 7. The movement is so easy and natural that the drawer instinctively places the card in the opening. The pack is then closed, apparently with the card in the center, but in the act of closing it the pass is made, and the card lies on the top, to be dealt with at the performer's pleasure.

Third Method. (With the left hand.) -Take the cards in the left hand. Insert the third finger above the cards
which are to be brought to the top (and which now form the lower half of the pack), and close the remaining three fingers on the top of the pack. (See Fig. 3, but suppose the third finger inserted in place of the fourth.) Now extend the fingers, which will make the upper part of the pack describe a semicircle (see Fig. 10 ), and at the same moment press downward with the thumb the left top corner of the lower packet. This will tilt up the opposite end of the lower packet and give room, as you again close the fingers, for the upper packet to pass into the lower place. (See Fig. 11.) To bring the original upper packet (i.e., the one with the six of hearts at the bottom) from the position indicated in


Fig. 10.
Fig. 10 to that which it occupies in Fig. 11, it is pressed slightly forward with the middle finger, and is thereby made to perform a semi-revolution, the third finger acting as pivot. The packet is by this means turned over endwise, i.e., that end of the packet which was originally nearest to the performer is now farthest from him, and vice versa. The movement is by no means easy to de-
scribe, but if followed step by step with the cards will be readily understood.

This method of making the pass has a peculiarity which renders it specially useful in certain cases. When the upper half of the pack describes a semicircle, as above mentioned, the bottom card of such half is in full view of the performer, though the spectators see only the backs of the cards. The performer thus becomes acquainted, unknown to the audience, with that card


Fig. 11.
which, after the pass, becomes the bottom card of the pack, which knowledge may occasionally be very useful. The movement of the cards in this mode of making the pass is very noticeable, but the circular sweep taken by the upper packet so confuses the eye that the audience must be extremely keen-sighted to detect the effect of the movement, which, if neatly executed, has the appearance of a mere flourish. A quick sweep of the arm from left to right as the pass is made will greatly assist in covering the transposition of the cards.

Some perform the pass last described without causing the upper packet to make the semi-revolution above mentioned. The first finger in this case does not participate in the operation, but is left extended beyond the upper end of the pack.

Fourth Method. (With the right hand.)-This is a mere makeshift for the pass proper, though its effect is the same. It is performed in picking up the cards from the table after they have been cut, and left, as usual, in two heaps. The performer picks up, as in the ordinary course, the bottom half of the pack (which should properly be placed uppermost after the cut), but, instead of picking them up in the usual way, he picks them up with the second, third, and fourth fingers under, and the first finger above, the cards. In placing


Fig. 12.
them apparently upon the upper head, he tilts up the right hand edge of that heap with the tip of the first finger, and with the remaining fingers slides the heap underneath it (see Fig. 12), so that the cards are again precisely as they were before the cut. This sham mode of making the pass is rarely used by conjurers, but is said to be frequently employed by card-sharpers.

To Force a Card.-By this phrase is signified the compelling a person to draw such a card as you desire, though he is apparently allowed absolute freedom of choice. Your first step is to get a sight of the bottom card, or, if you want to force a predetermined card, to get that card to the bottom. Having done this, take the pack in the left hand and insert the little finger half
way down in readiness to make the pass. Make the pass by the first method, but before uniting the two halves of the pack in their new position again slip the little finger of the left hand between them. (The two halves will now be united at the end which is toward the spectators, but divided by the little finger at the end nearest to yourself, and the original bottom card, which is the one you desire to force, is now the bottom of the top heap, resting on the little finger.) Using both hands, with the thumbs above and the fingers below the pack, spread out the cards fan-wise from left to right, at the same time offering them to the person who is to draw, and requesting him to select a card. Keep the little finger of the left hand still on the face of the card to be chosen, or you may now use, if more convenient, the same finger of the right hand, both being underneath the cards. As the person advances his hand to draw, move the cards onward with the thumb, so that the particular card shall reach his fingers just at the moment when he closes them in order to draw, and if you have followed these directions properly it is ten to one that he will draw the card you wish. It may possibly be imagined that forcing is a very difficult matter, and requires an extraordinary degree of dexterity, but this is by no means the case. "The principal thing which a beginner must guard against is a tendency to offer the particular card a little too soon. When the cards are first presented to the drawer the pack should be barely spread at all, and the card in question should be ten or fifteen cards off. The momentary hesitation of the drawer in making his choice will give time, by moving the cards quicker or slower, as may be necessary, to bring that card opposite his fingers at the right moment. Should the performer, however, miscalculate his time, and the card pass the drawer's fingers before the choice is made, he need not be embarrassed. Still keeping the little finger on the card, he should sharply close the cards, and, making some remark as to the drawer being "difficult to please" or the like, again spread them as before, and offer them for the choice.

A moderate degree of practice will make the student so proficient that even a person acquainted with the secret of forcing will have to be very wide-awake in order not to take the desired card. You will, however, sometimes find a person, suspecting your design and wishing to embarrass you, suddenly jerk his hand away from the card which he was apparently about to take and draw another from a different part of the pack. In the great majority of tricks this is of little consequence, inasmuch as there are numerous ways (which will be hereafter explained) of ascertaining what the drawn card was; but there are some illusions which depend upon the drawer taking a card similar in suit and number to one already prepared elsewhere for the purpose of the trick. In this case it is, of course, absolutely necessary that the card drawn should be the right one, and as even the most accomplished performer cannot always be certain of forcing a single card, another expedient must be used in order to insure success. This is made absolutely certain by the use of what is called a "forcing pack"-i. e., a pack in which all the cards are alike. Thus if the knave of hearts is the card to be drawn, the whole pack will consist of knaves of hearts, and the drawer may therefore do his utmost to exercise a free choice, but the card which he draws will certainly be the knave of hearts, and no other. Where more than one card is to be drawn, as, for instance, in the well-known trick of the "rising cards," the pack may consist, instead of similar cards throughout, of groups of two or more particular cards. Thus, one-third may be knaves of hearts, one-third aces of diamonds, and the remaining third sevens of clubs-the cards of each kind being together. With the aid of such a pack it will require very little skill to insure one of each sort being drawn.
To Make a "False Shuffle."-False shuffles are of two kinds, according to the object with which they are made. Those of the first kind are designed simply to keep in view a particular card or cards, the remainder
of the pack being really shuffled. The second kind are designed to keep the pack in a prearranged order, and are shuffled in appearance only, all the cards being brought back to the same relative positions which they occupied before the shuffle.

First Method. (To keep a particular card or cards in view.)-Take the pack in the left hand. If the card to be kept in view is not already on the top of the pack, insert the little finger of the left hand immediately above that card, and make the pass in order to bring it to the top. Transfer this card to the right hand and slide the remaining cards upon it, by little successive parcels of six or eight cards, one above the other. The known card will now be at the bottom. Return the pack to the left hand. Slide off three or four of the top cards into the right hand, and place the remaining cards, by parcels of six or eight, as before, alternately above and below these top cards, till you come to the last card, which is the special one, and which you will place above or below as occasion may require. If there are three or four cards to be kept in view, it makes no difference in the mode of operation, save that you must treat those cards throughout as the single card, and keep them together accordingly.

Second Method. (To retain the whole pack in a prearranged order.) -This is another specialty of Professor Charlier, already referred to. Holding the pack in the left hand, pass three or four of the top cards into the right. Then by degrees pass the remaining cards alternately above and below these, but in passing cards below take from the top of the left-hand packet, and in placing cards above, take from the bottom of the lefthand packet, being exactly the reverse of the ordinary procedure. The movement will require a good deal of practice in order to perform it neatly, but when once mastered, it is marvelously deceptive. The passing of cards from the top of the left-hand packet to the bottom of the right-hand packet is easy enough, they being simply pushed forward by the left thumb; but the pass-
ing of cards from below the left-hand packet on to the top of the other is not quite so easy. The best plan is to push them forward with the fingers of the left hand, at the same time using the thumb of the right hand as a check to prevent the upper cards of the packet being pushed forward with them.

This shuffle leaves the cards "cut," as compared with their original condition, but not otherwise disturbed in order. Where it is necessary to bring back the pack precisely to its original condition (i.e., with the same card uppermost), this must be effected by the use of the "bridge," or of a long or wide card.

To "Palm" a Card.-Bring the card which you desire to palm (by the pass or otherwise) to the top of the pack. Hold the pack face downward in the left hand, covering it lengthwise with the right. With the


Fig. 13.
left thumb push the top card till it projects about an inch beyond the edge of the pack. With the third finger of the left hand, which is now immediately below the card, press it upward into the right hand, which should be half closed over it. You must not mind about bending the card, which will lie curled up against the inside of the hand. You may either let the hand drop negligently
to your side, or, still better, take the pack between the fingers and thumb of the same hand (see Fig. 13), and offer it to be shuffled. This will give you the opportunity, often very valuable, of seeing what the card in question is. When it becomes necessary to return the card to the pack the mere motion of taking the pack in the right hand, whether from the left hand or from the table, will effect that object in the most natural manner. If the card retains a curve from its bent position in the hand, you may readily straighten it by ruffling the cards, as described in the next paragraph. If the performer is fortunate enough to have a large hand, a complete pack of cards may be palmed in this manner without difficulty.
the Continuous back and front palm with cards.
The novel sleight with the above title is of comparatively recent invention, and forms the foundation of the artistic card act by which Howard Thurston has made such a reputation. The idea it embodies is to enable the performer to conceal one or more cards in his hand, although at any moment showing back and front of the hand to be perfectly empty.


Fig. 14.

To successfully accomplish this feat great digital dexterity is essential, but this, of course, can be attained by assiduous practice.

I will first of all describe the method of working this


Fig. 15.
sleight with one card.
To begin with, the card is held between the tips of the middle finger and thumb, as in Fig. 14.


Fig. 16.

The first and little fingers now grip the card, as in Fig. 15.

The two middle fingers are next bent and brought down under the card and round to the front of same, thereby causing the card to revolve between the first and fourth fingers, as though on an axis, and assume the position on the back of the hand clipped between the first and second and third and fourth fingers, as shown in Fig. 16.


Fig. 17.
After considerable practice it will be found that all the movements I have just described will become practically one, and the card will apparently vanish from the hand without the most astute spectator having the faintest idea where, especially if the manipulation is accomplished with a sweeping motion, as though the card were thrown in the air.

Now to reverse the card to the front of the hand again, so as to enable the back of the hand to be shown to the audience.

To accomplish this, the fingers bend forward so that the thumb can press on the middle of the face of the card.

This movement, which is absolutely impossible to de-
saribe in writing, will become apparent to the learner after a few trials.

With the card in this position, of course the fingers and thumb can be spread wide apart.

When manipulating more than one card the above movements all hold good, with the exception of bringing the cards from the back of the hand to the front. Instead of the thumb pulling the cards round to the front, which would practically be impossible, it simply presses upon them, while the first finger moves to the other end of the cards, and pushes them down into the attitude illustrated in Fig. 17.

To "Change" a Card. (Filer la Carte.)-Some of the most brilliant effects in card conjuring are produced by the aid of this sleight, by means of which a card, fairly exhibited, is forthwith apparently transformed to a different one. There are several modes of producing this effect, but the following is far superior to the others:

Hold the pack in the left hand, as though about to deal the cards. Hold the card to be changed in the right


Fig. 18.
hand, between the first and second fingers. (See Fig. 18.) The card into which it is to be changed should have been previously placed (secretly, of course) on the top of the pack. Push this card a little forward with the left thumb, so as to make it project about threequarters of an inch beyond the remaining cards. Bring
the hands close together for an instant, and in that instant place the card held in the right hand under the pack (the second, third, and fourth fingers of the left hand opening to receive it, and the remaining finger making way for it as soon as it reacles the pack). Simultaneously with this movement, the thumb and first finger of the right hand must close upon the card projecting from the top of the pack, and as the hands separate carry with them that card in place of the one which the right hand originally held. A half turn of the body to the left or right, a quick downward sweep of the right hand, or any other rapid gesture, will assist in covering the momentary bringing together of the hands. In some cases it is better that the right hand alone should move, the left hand being held stationary; in other cases the left hand (the one holding the pack) should make the movement, the hand holding the single card being motionless. It will be well to practice both these modes of making the change. The direction in which


Fig. 19.
the performer turns, in order to place the card on his table, or the like, will indicate which is the best mode to use in any given case.

The "Color" Change. - The sleight known by this
name is used to change the front card of the pack while held in the left hand, and has become very popular. The pack is held in the left hand, as shown in Fig. 19. As the right hand, which has previously been shown empty,


Fig. 20.
passes over the pack with an upward movement, it seizes and carries away the rear card of the pack, clipping it between the root of the thumb and first finger (Fig. 20). The hand is then replaced on the pack and the palmed card left there.

To "Slip" a Card.-Hold the pack in the left hand, having first slightly moistened the fingers, which should rest upon the back of the cards. Open the pack bookwise, at an angle of about 45 degrees, holding the upper packet lengthwise between the thumb and second finger of the right hand. Draw this upper packet smartly upward to a distance of two or three inches from the lower packet. (See Fig. 21.) The top card of the upper packet, being held back by the pressure of the fingers upon it, will not move upward with the rest of the packet, but immediately the remaining cards are clear will fold itself down on the top of the lower packet. If the top card of the lower packet be examined before and after the slip, the card will appear to have changed,
the fact being that the original top card becomes the second after the slip, the slipped card covering it.


Fig. 21.
To Spring the Cards from One Hand to the Other. -This is a mere flourish, and belongs rather to the art of the juggler than to that of the magician, but it is so frequently exhibited by conjurors that a work on magic would hardly be complete without some notice of it. The cards are held in the right hand, between the tips of the second and third fingers at the top, and the thumb at the bottom. If the thumb and fingers are now brought slowly nearer together, so as to bend the cards slightly, they will one by one, in quick succession (beginning with the bottom card) spring away from the pack; and if the pressure be continued, the whole of the cards will spring away one after the other in this manner. If the left hand be held at ten or twelve inches from the right, with the fingers slightly bent, the released cards will be shot into the left hand, which, as the last cards reach it, should be rapidly brought palm to palm with the right, and square up the pack to repeat the process. By giving the body a quick half turn to the right as the cards are sprung from one hand to the other you may make the hands (and with them the moving ca:ds) describe an arc of about two feet, and so deceive the eye of the spectator into the belief that the
hands are that distance apart, though in reality, as they both move together in the same direction, they retain throughout their original relative distance of ten or twelve inches.

As, however, this is a feat which demands considerable practice, the ingenuity of some performers has produced mechanical packs of cards, whereby a similar effect may be produced at much less expenditure of personal dexterity. Such packs vary somewhat in arrangement. The earliest, mentioned by Robert Houdin, had the ends of each card, to a depth of about half an inch, glued to the cards next preceding and following it. Thus the top card would be glued to the second card at bottom, and the second to the third card at top, and so on throughout, so that the whole, when drawn apart, formed a "zigzag," though when pressed together there was no difference in appearance from an ordinary pack. The cards thus prepared could be drawn apart three feet or more, and by the aid of such a pack, substituted at need for the ordinary pack previously in use, the "springing' from hand to hand could be very neatly simulated. It is obvious, however, that the pack so arranged could only be opened in one direction, and the packs now used for the same purpose are usually strung together with a double line of narrow white silk ribbon, allowing about half an inch of play between each pair of cards, and so arranged that they shall, when drawn out, lap each over its neighbor, just far enough to prevent the ligature being visible.

To Throw a Card.-This sleight also belongs rather to the ornamental than to the practical part of conjuring, but it is by no means to be despised. It is a decided addition to a card trick for the performer to be able to say, "You observe, ladies and gentlemen, that the cards I use are all of a perfectly ordinary character," and by way of offering them for examination, to send half a dozen in succession flying into the remote corners of the hall or theater.

The card should be held lightly between the first and second fingers, in the position shown in Fig. 22. The
hand should be curved inward toward the wrist, and then straightened with a sudden jerk, the arm being at the same time shot sharply forward. The effect of this movement is that the card as it leaves the hand revolves in the plane of its surface in the direction indicated by the dotted line, and during the rest of its course maintains such revolution. This spinning motion gives the flight of the card strength and directness which it would seem impossible to impart to so small and light an object.

A skilled performer will propel cards in this way to a distance of sixty or eighty feet, each card traveling


Fig. 22.
with the precision and well nigh the speed of an arrow shot from a bow. The movement, though perfectly simple in theory, is by no means easy to acquire in practice. Indeed, we know no sleight which, as a rule, gives more trouble at the outset, but after a certain amount of labor with little or no result, the student suddenly acquires the desired knack, and thenceforth finds no difficulty in the matter.

The Bridge.-The object of the bridge is to enable the performer, with ease and certainty, to cut or otherwise divide the pack at a given card. It is made as follows: Holding the cards in the left hand, with the thumb across the pack, the peformer covers them for an instant with his right hand, as if about to make the pass. Grasping the pack between the thumb and second finger of this hand, he bends the whole of the cards
slightly inward over the first finger of the left hand, immediately afterward bending the upper or outward portion of the pack backward in the opposite direction. The effect of the double movement is that the two halves of the pack are bent in a double concave form, thus )(, though in a much less degree. If the cards be now cut, the concave portions, instead of being, as at first, back to back, will be face to face, thus (), leaving in the center of the pack an elliptical opening, of a maximum width of about an eighth of an inch. This slight hiatus in the middle will generally cause a person who is invited to cut to do so at that particular point, and will in any case enable the performer either to cut or to make the pass at that point with the greatest ease. The cases in which the bridge may be employed with advantage will be more particularly indicated when we come to practically apply the processes already described, but it has a special use which may be at once mentioned. It will be remembered that some of the false shuffles already described leave the cards as if cut, though they in other respects retain their pre-arranged order, and it therefore becomes necessary to again cut them at a particular point in order to bring them back to their original condition. This point is ascertained by the use of the bridge. The cards are first bent in the manner above described; the false shuffle is then made, leaving the cards in effect cut, but by again cutting or making the pass at the bridge they are once more arranged precisely as they were at first.

I have endeavored to be as explicit as possible in the foregoing description of the different sleight-of-hand processes, so that the reader may, by following my instructions closely, be able to teach himself, unassisted, to perform the various movements described. I have done my best to make my descriptions intelligible, and trust that I have fairly succeeded. I should, however, strongly advise any student who desires to make rapid progress to take, if possible, a few preliminary lessons under the personal guidance of a competent performer,
professional or amateur. It is an old saying that an ounce of example is worth a pound of precept, and a reader who has once or twice seen the processes I have described practically illustrated by skillful hands will not only avoid the difficulties which are sure to be at first found in even the clearest written instructions, but will escape the formation of bad habits, which it may take much time and trouble to eradicate. Should the novice seek such assistance, he must not expect to find that every performer uses individually all the processes I have described. Every professor has his own favorite methods of procedure, and, generally speaking, pours scorn and contumely upon all others; or, in the words of Byron (a little altered)-
> "Compounds for sleights he has a mind to, By damning those he's not inclined to."

The student who commences his labors without such assistance must make his own selection. In the "pass"" I should recommend him to stick to the first method, the remaining passes being rather curious than useful. For the remaining processes he may be guided by his own taste, and the greater or less facility with which his fingers adapt themselves to one or the other of them.

The various sleights above described will cost the student some time and perseverance before they are fairly, mastered, and until they are so it is hopeless to attempt any of the more brilliant feats. For his amusement in the meantime I subjoin a few tricks for which sleignt-of-hand is not necessary, but which, if performed with neatness and tact, will cause considerable astonishment to the uninitiated.

## CHAPTER III.

CARD TRICKS WITH ORDINARY CARDS, AND NOT REQUIRING SLEIGHT-OF-HAND.

There is a large class of tricks which may be described as consisting of two elements-the discovery of a chosen card by the performer, and the revelation of his knowledge in a more or less striking manner. I propose to give, in the first place, several methods of discovering a given card. It must be remembered that for present purposes I exclude all tricks for which any special dexterity is requisite. There will be little that is absolutely novel in this chapter, but it will be for the student to supply the want of freshness in his materials by the ingenuity of his combinations.
Simple Modes of Discovering a Given Card. (First Method.)-Hold the pack face downward in the left hand, having previously noticed the bottom card. Secretly draw down this card about three-quarters of an inch, and hold the part so drawn down befween the thumb and fourth finger of the right hand, the palm of the right hand being above the cards. (See Fig. 23.) Now, with the tip of the first or second finger of the right hand, draw down the cards one by one about half an inch (beginning with the top card, and so on), inviting the spectators to stop you at any card they may choose. When they do so, draw down all the cards, as far as you have gone, completely away from the remaining cards, but with them draw down at the same time the bottom card. This card, coalescing with the upper portion, will be, to the eyes of the spectators, that one at which you were directed to stop. Holding the cards with their backs toward you, request them to observe what the card is. The pack may now be shuffled to any extent, but, being acquainted with the card, you can find or name it at pleasure.

The above may be employed as a means of "forcing", where it is essential to force a given card, and you are not sufficiently proficient to feel certain of effecting that object by the regular method. Thus, suppose that the card which you desire to force is the seven of diamonds; you place that card at the bottom of the pack and proceed as above directed. When the aullience desires you to stop, you draw off the upper packet, and with it the seven of diamonds, which will thereby become the bottom card of that packet. You request the audience to


Fig. 23.
note the card, and at once hand the pack to be shuffled. This is a very simple and easy mode of forcing, but it is generally known, and it would not, therefore, be safe to use it before a large or very acute audience.

Second Method.-Deal the cards into three packs, face upward, and request a spectator to note a card, and remember in which heap it is. When you have dealt twenty-one cards throw the rest aside; these not being employed in the trick. Ask in which heap the chosen card is, and place that heap between the other two, and deal again as before. Again ask the question, place the heap indicated in the middle, and deal again a third time. Note particularly the fourth or middle card
of each heap, as one or other of those three cards will be the card thought of. Ask, for the last time, in which heap the chosen card now is, when you may be certain that it is the card which you noted as being the middle card of that heap.

This sare effect will be produced with any number of cards, so long as such number is odd, and a multiple of three. The process and result will be the same, save that if fiftee cards are used each heap will consist of five cards, and the third card of each will be the middle one; if twenty-seven cards, each heap will consist of nine cards, and the fifth will be the selected one, and so on.

Third Method.-Take any number of the cards, and deal them face upward upon the table, noting in your own mind the first card dealt. Ask any number of persons to note a card, and to remember at what number it falls. When you have dealt all the cards you first took in your hand, take them up again, without disturbing their order, and turn them face downward. In order to show that the trick is not performed by any arithmetical calculation (you should lay great stress upon this, the fact being precisely the reverse), invite the company to take any number they choose of the remaining cards (such number being unknown to you), and place them either above or below the cards you have dealt. Allow the cards to be cut (not shuffled) as many times as the spectators please. Ycu now, fcr the first time, ask each person what was the number of his card, and, on being informed, again deal the cards, turning them face upward. When the original first card appears, count on (silently) from this as number one to the number mentioned, at which number the noted card will again appear. Should the whole of the cards be dealt out without reaching the required number, turn the cards over again and continue from the top of the pack until that number is reached.
Having indicated how a card may be discovered, we proceed to describe a few simple but nevertheless effective tricks.

The Four Kings Being Placed Under the Hand of One Person and the Four Sevens Under the Hand of Another, to Make Them Change Places at Will. -Exhibit, fan-wise, in one hand the four kings and in the other the four eights. Behind the hindmost of the kings, so as not to be noticeable by the audience, secretly place beforehand the four sevens. Hold the four eights in the other hand in such manner that the lower of the two center pips of the foremost is concealed by the first and second fingers. The same pip on each of the other cards will be concealed by the card immediately before it, so that the four cards will to the spectators appear equally like the sevens. Place the pack face downward on the table. Draw attention to the fact that you hold in one hand the four kings, and in the other the four sevens (really the disguised eights). Fold up the supposed sevens and place them on the pack. Fold up the kings and place them on the top of the supposed sevens. As the real sevens were behind the last of the kings, they are now on the top, with the kings next, though the spectators are persuaded that the kings are uppermost, and the sevens next following. Deal off, slowly and carefully, the four top cards, saying, "I take off these four kings," and lay them on the table, requesting one of the spectators to place his hand firmly upon them. Do the same with the next four cards (which are really the kings). Ask the persons in charge of the cards if they are quite sure that they are still under their hands, and, upon receiving their assurance to that effect, command the cards they hold to change places, which they will be found to have done.
To Name Cards Without Seeing Them.-Procure a small concave mirror, one and a half to one and threequarters inches in diameter, and conceal this, glass outward, in the palm of the left hand. Hand the pack to be shuffled; take it back with the right hand, and thence transfer it to the left, holding it between the second and third fingers and thumb, so as to leave a clear space between the last card and the palm. The card
for the time being at the bottom will now be reflected in the mirror, and may be named accordingly. This being drawa off by the right and thrown on the table, another card comes into view, and may be named in like manner.

Another method is to have the little mirror palmed in the right hand, and to hold the pack with the left, face outward, against the forehead. The performer with the right hand takes down the outermost card, and in so doing is enabled to catch sight of its reflection in the glass.

If the neophyte finds a difficulty in holding the mirror securely in the palm, he is quite at liberty to fix it in position with shoemaker's wax. I should, however, have small hope in such case of his ever making a conjurer.

New Thought Card Sleights.-In describing the following entirely new methods of discovering the name of a card that a spectator has secretly thought of, I take great pleasure in making my readers acquainted with the most interesting and indetectable sleights in the whole range of conjuring.

First Method.-In this form of the trick the performer takes a pack of cards that has just been shuffled by a spectator, and, holding the cards, (the order of which he has absolutely no knowledge), in the right hand, with the backs of the cards toward himself, passes them one at a time into the left hand, at the same time requesting a spectator to think of any card that he desires. After the person has signified that he has made a selection, the performer closes up the pack and gives it a thorough shuffle. He now finishes the trick in any manner that he chooses, producing, for instance, the thought card at any number called for, or causing any card that some one else selects at random from the pack to change into a thought card.

The secret of this entirely new dodge depends practically upon a novel application of the mind reading act, a la Bishop and Cumberland. As the performer
deliberately passes the cards from the right hand to the left, he counts them, at the same time carefully watching the eyes of the spectator, to whom he is rather close. It is a curious fact that as soon as the latter has made a silent choice his eyes will give a recognition of that fact by the glance losing its intensity. The conjurer can thus invariably tell which card has been selected, and, having kept tally on the number of cards passed, knows its exact position in the pack. It is a comparatively easy matter for him to make the pass at this place, thereby bringing the desired card to the top of the pack, which is next subjected to a vigorous but false shuffle. The finish of the trick, which is optional with the performer, ought to be made as brilliant a one as possible.

Second Method.-The conjurer employing this plan of discovering a card secretly thought of is apt to be suspected of being in league with his Satanic Majesty, for he takes an unprepared pack of cards that has just been shuffled, and, without as much as glancing at one of the cards, places the pack behind his back, which he turns toward the spectators. Passing the cards from one hand to the other, he invites a spectator to think of one of them; then, closing up the pack and after shuffling it, produces the selected card in any way that he sees fit.

This method, which is entirely different in principle from the preceding one, depends mainly upon a novel way of forcing a card.

Third Method.-The ruse employed in this version of the feat is really as ingenious as the preceding one.

The performer advances toward a spectator, and, holding the pack with the faces of the cards toward himself, causes them to spring from one hand to the other in the manner familiar to all conjurers. At the same time he requests a spectator to think of any of the cards that he sees. The spectator does as requested, and is very much surprised when a few moments later the
conjurer produces, in some mysterious manner, the card that he actually selected.

In this case another novel force, resembling in principle the preceding one, is used. It is practically impossible for the spectator to note in particular any of the cards as they are sprung from one hand to the other, for the very reason that they pass before his eyes in too quick a succession. When about half of the cards have been sprung the performer stops for an instant, say, a quarter of a second, thereby causing an extremely brief cessation of the springing, and thus causing the last card that has been sprung to be more fully exposed than any of the others. The spectator readily grasps the chance offered to him and selects this card, which the performer, who quickly places his little finger over it, sees as well as he. The rest of the cards are then sprung on top of the other ones in usual fashion, whereupon the pack is closed and the pass is made, whereby the chosen card is brought to the top of the pack, the performer then dealing with it as best suits the occasion.

The Lost Ace.-After introducing a pack of unprepared cards, the performer removes the four aces from


Fig. 24.
it and lays them on the table in plain sight. The remaining cards are then handed to a spectator, with the request to convince himself that no duplicate aces are contained therein. After this has been done the conjurer picks up the four aces and requests the spectator to shuffle them into the pack. Upon asking the spectator whether he is sure that he has the aces in his possession, and being answered in the affirmative, the performer reaches into his pocket and produces therefrom the ace of diamonds, which, upon inspection of the pack, is found missing.

Previous to the introduction of the trick the artist removes from the pack the ace of diamonds, which he places in the tail pocket of his coat. The cards laid on the table consist of the three aces and the nine of diamonds, which is used as a substitute for the missing ace of the same suit. To conceal the side pips of this card the ace of clubs and the ace of spades are made to cover it, as indicated in Fig. 24. By a little practice this can be done in an apparently careless manner of arranging the cards on the table, and finally placing the ace of hearts over them.

The trick then proceeds as described, the four cards (supposed to be four aces) being shuffled into the pack, after which operation the ace of diamonds, having vanished from the pack, is produced from the performer's pocket.
To Name All the Cards in the Pack in Succession. -This is an old trick, but a very good one. To perform it you must arrange the cards of a whist pack beforehand,' according to a given formula, which forms a sort of memoria technica. There are several used, but all are similar in effect. The following is one of the simplest:
> "Eight kings threatened to save Ninety-five ladies for one sick knave."

These words suggest, as you will readily see, eight, king, three, ten, two, seven, nine ${ }_{2}$ five, queen, four, ace,
six, knave. You must also have a determinate order for the suits, which should be red and black alter-nately-say, diamonds, clubs, hearts, spades. Sort the pack for convenience into the four suits, and then arrange the cards as follows: 'Take in your left hand, face upward, the eight of diamonds, on this place the king of clubs, on this the three of hearts, then the ten of spades, then the two of diamonds, and so on, till the whole of the cards are exhausted. This arrangement must be made privately beforehand, and you must either make this the first of your series of tricks, or (which is better, as it negatives the idea of arrangement) have two packs of the same pattern, and secretly exchange the prepared pack, at a suitable opportunity, for that with which you have already been performing. Spread the cards (which may previously be cut any number of times), and offer them to a person to draw one. While he is looking at the card, glance quickly at the card next above that which he has drawn, which we will suppose is the five of diamonds. You will remember that in your memoria technica "five is followed by "ladies" (queen). You know, then, that the next card, the one drawn, was a queen. You know also that clubs follow diamonds; ergo, the card drawn is the queen of clubs. Name it and request the drawer to replace it. Ask some one again to cut the cards, and repeat the trick in the same form with another person, but this time pass all the cards which were above the card drawn below the remainder of the pack. This is equivalent to cutting the pack at that particular card. After naming the card drawn, ask if the company would like to know any more. Name the cards next following the card already drawn, taking them one by one from the pack and laying them face upward on the table, to show that you have named them correctly. After a little practice it will cost you but a very slight effort of memory to name in succession all the cards in the pack.

## CHAPTER IV.

trices involving sleight-of-hand or the use of speCIALLY PREPARED CARDS.

To Distinguish the Suit of Any Given Card by Weight.-This feat depends upon a little preliminary prepartion of the cards. Selecting a pack with glazed backs, you "mark" them by the simple expedient of drawing a wet finger with some little pressure across one end of each, as follows: For the hearts, right along the edge; for the spades, from the left-hand corner half way across, and for the clubs, from the middle to the right-hand corner. The diamonds have no mark. The strip of moistened surface should not be more than an eighth of an inch in width. The cards being allowed to dry, it will be found that, when looked at obliquely, the glazed surface shows a dull streak wherever the finger has passed, although not sufficiently marked to attract the attention of the casual observer.

The performer hands the cards to be shuffled, and requests that they be given back to him one by one, when he will tell, by its weight, of what suit each card is. He receives the card face downward on the extended right hand, and, moving it gently up and down, as though to estimate its weight, is able without difficulty to observe how it is marked, and to describe it accordingly. If it bears no mark he declares with confidence that it is a diamond.
Should anyone seem to have a suspicion that the cards are marked, a diamond may be put into his hand for examination. These, having no mark, tell no tales.

The "Three-Card" Trick.-This is more of a sharper's than a conjurer's trick, but it is a frequent experience with anyone who is known to dabble in sleight-of-
hand to be asked, "Can you do the three-card trick?" It is humiliating to be obliged to reply, "No, I can't," and moreover the trick, neatly performed, may be made the occasion of a good deal of fun.

The effect of the trick is as follows: Three cards are used, one of them being a court card, the two others "plain," or low cards. We will suppose, for the sake of illustration, that the cards used are the king of hearts, the seven of spades, and the nine of diamonds. The performer takes one of the low cards, say, the nine of diamonds, in his left hand face downward, between the tips of the second finger and thumb. The other two cards are held in the right hand in like manner, one above the other, about an inch apart, but the uppermost card, which we will suppose to be the seven, is held between the thumb and the tip of the first finger, while the undermost (the king) is supported between the thumb and the second finger as shown in Fig. 25. The performer now throws the three cards in succession face


Fig. 25.
downward upon a table or on the ground before him (in the latter case kneeling to his work), shuffles them about with more or less rapidity, and then invites the spectators to guess (or, in the card-sharping form of the trick, to bet) which is the court card. This would seem to be a perfectly easy matter. The spectators have observed where the king originally fell, and the subsequent shifting of the cards has not made it much more difficult to keep note of its position, but if the trick has
been skilfully performed they will be more often wrong than right.

The main secret lies in the position of the cards in the right hand, coupled with a dexterity acquired by much practice. The performer professedly throws down the undermost of the two cards in the right hand first, and this card has been seen to be the king. As a matter of fact, however, he can at pleasure let the uppermost card fall first, the first finger, which supported it, taking the place of the middle finger at the top of the second card. The change is so subtle that even the keenest eye cannot detect whether it has or has not been made, and this makes practically two chances to one against the person guessing.

This would seem to be pretty good odds, but they are not enough for the card-sharper, and in the swindling form of the trick, as practiced on race-courses, etc., a new deception is introduced. The player works in conjunction with two or three confederates, each suitably disguised, say, as a parson, a farmer, or a country yokel. These gentlemen start the betting, and, as might be expected, pick out the right card each time, the performer at the outset making no attempt to disguise its identity. Presently one of them takes an opportunity, while the performer's attention is professedly taken up in pushing back bystanders who are crowding him, or the like, to turn up the king, show it to the company, and in replacing it slightly to bend up one corner. The operator, good, innocent man, takes up the cards again, little thinking (of course) of the trick that has been played him, and begins to shuffle them about once more. Move them as he will, that telltale corner marks the king, and presently some bystander, whose greed is greater than his honesty, ventures a bet that he will pick out the card. Others follow the example, only too glad to bet on a supposed certainty, and not deeply concerned with the morality of the proceeding. When no more bets are to be procured, one of the victims turns up the supposed king,
and finds instead-the seven of spades, the fact being that the performer, in throwing down the cards for the last time, had with the point of the finger deftly straightened the bent corner of the king, and made a corresponding dog's ear on the low card.

The moral of this little apologue is obvious. Don't try to take a mean advantage of a poor card-sharper, and if you don't want him to take advantage of you, don't bet on the "three-card"' trick, or any other.

The Penetrating Card.-The following trick, which originated several years ago, has become popular with conjurors the world over, being no doubt one of the best of latter-day tricks.

After a card has been chosen and shuffled back into the pack, the latter is inclosed in a borrowed handkerchief, which is held by its upper ends. Tapping with his wand against the card in the handkerchief, the performer states that he will cause the selected card to separate itself from its mates and to visibly penetrate the fabric. While he is explaining this, and tapping the pack with the wand at the same time, the chosen card, the name of which the conjurer has previously asked for, is observed to gradually force itself out through the handkerchief. It is seen to protrude further and further, until the entire card becomes visible and at last flutters to the floor. The handkerchief is instantly opened out and the cards contained in it removed, no trace of any preparation whatever being noticeable. The pack is then examined and the selected card is found to be missing from it.

After the card has been chosen the spectator is requested to return it to the center of the pack, whereupon the conjurer makes the pass, thereby bringing it to the top, and then palming it in his right hand, over which "he" now spreads the previously borrowed handkerchief, arranges the latter in such a way that its center is directly over the palmed card, which is thus hidden beneath it. Placing the remainder of the pack
in the middle of the handkerchief, exactly above the palmed card, the performer folds the front half of it toward himself. Now, seizing the pack and the handkerchief with the left hand, he passes the right hand along it, thereby folding the loose portions of the handkerchief over toward the back and then seizes it by its four corners, the chosen card being by this operation held in the folds of the handkerchief, as illustrated in Fig. 26, which, as my reader will perceive, is a rear view of the position of the handkerchief and card. It will now be found that, by hitting the cards in the handkerchief short, quick taps with the wand, the concealed card will become dislodged and gradually make its appearance with a mystifying effect. (Fig. 27.)


I have already explained the nature and use of the "forcing" pack of cards. It may be well, before I go further, to give a short account of one or two other species of prepared cards.

The Long Card.-This is the technical name for a card longer or wider, by about the thickness of a sixpence, than the rest of the pack. This card will naturally project to that extent beyond the general length or width of the other cards, and the peformer is thereby enabled to cut the pack at that particular card whenever he chooses to do so. With the aid of such a card, and a tolerable proficiency in "forcing" and "making the pass," many excellent tricks can be performed. Packs with a long card can be obtained at any of the conjuring depots. The best plan, however, is to purchase two ordinary packs, precisely alike, and to have the edges of one of them shaved down by a bookbinder to the requisite extent, when you can insert any card of the other pack at pleasure to form your long card, and thus avoid the suspicion which would naturally arise from the performance of several tricks with the same card. A still greater improvement upon the ordinary long-card pack is the biseauté, or tapering pack, in which, though only one pack is used, any card may in turn become the long card. A biseauté pack consists of cards all of which are a shade wider (say, the thickness of a quarter) at one end than at the other. (See Fig. 28, in which, however, the actual difference of width is exaggerated, in order to make the shape of the card clear to the eye.)


Fig. 28.


Fig. 29.

When two cards shaped as above are placed one upon another, but in opposite directions, the effect is as in

Fig. 29. If the whole pack is at the outset placed with all the cards alike (i. e., their ends tapering in the same direction), by reversing any card and returning it to the pack, its wide end is made to correspond with the narrow ends of the remaining cards, thereby making it for the time being a "long'" card. By offering the pack for a person to draw a card, and turning the pack around before the card is replaced, the position of that card will thus be reversed, and you will be able to find it again in an instant, however, thoroughly the cards may be shuffled. By arranging the pack beforehand, with the narrow ends of all the red cards in one direction, and those of the black cards in the other direction, you may, by grasping the pack between the finger and thumb at each end, (see Fig. 30), and drawing the hands apart, separate the black cards from the red at a single stroke, or, by preparing the pack accordingly, you may divide the court cards from the


Fig. 30.
plain cards in like manner. Many other manipulations may be performed with a pack of this kind, which will be noticed in due course. The long card and the liseauté pack have each their special advantages and disadvantages. The long card is the more reliable, as it can always be distinguished with certainty from the rest of the pack; but it is very generally known, and after having made use of it for one trick, it is clear that you canuot immediately venture upon another with the same
card. It is further comparatively useless, uniess you are proficient in "forcing." The biseauté pack may be used without any knowledge of "forcing," and has the advantage that any card may in turn become the key card, but it is treacherous.

The necessary turning of the pack is likely to attract observation, and any little mistake, such as allowing the card to be replaced in its original direction, or a few of the cards getting turned round in shuffling, will cause a breakdown. Notwithstanding these disadvantages, both the long card and the biseauté pack will be found very useful to the amateur, but it should be borne in mind that both these appliances are in reality only makeshifts or substitutes for sleight-of-hand. Professionals of the highest class discard them altogether and rely wholly on the more subtle magic of their own fingers.

I subjoin a few of the best of the feats which specially depend upon the use of a long card or the biseauté pack.

The Ladies' Looking Glass.-The cards having been freely shuffled, you invite a person to draw two cards, allowing him free choice. Opening the pack in the middle, you ask him to place his cards together in the opening. You bring them to the top by the pass, make the first of the false shuffles, and conclude by leaving them on the top. Offer the cards to a second person to draw a couple, but in opening the cards for him to return them, make the pass, so that they may be placed upon the pair already drawn, which are thereby brought to the middle of the pack. Again make the pass, so as to bring all four to the top. Make another false shuffle, leaving those four on the top, and offer the cards to a third and fourth person, each time repeating the process. Make the false shuffle for the last time, so as to leave all the drawn cards in a body on the top of the pack, with one indifferent card above them. The spectators believe that they are thoroughly dispersed, and your first care must be to strengthen that impression.

If you are expert in card palming, you may palm the nine cards and give the pack to be shuffled by one of the spectators, but this is not absolutely necessary, and there is some risk of the company notioing the absence of part of the pack. You remark: "You have all seen the drawn cards placed in different parts of the pack, and the whole have been since thoroughly shuffled. The drawn cards are therefore at this moment scattered in different parts of the pack. I can assure you that I do not myself know what the cards are" (this is the only item of fact in the whole sentence); "but yet, by a very slight, simple movement, I shall make them appear, in couples as they were drawn, at top and bottom of the pack." Then, showing the bottom card, you ask: "Is this anybody's card?" The reply is in the negative. You next show the top card and make the same inquiry. While you do so, you slip the little finger under the next card, and as you replace the card you have just shown, make the pass, thus bringing both cards to the bottom of the pack. Meanwhile, you ask the last person who drew what his cards were. When he names them you "ruffle" the cards, and show him first the bottom and then the top card, which will be the two he drew. While exhibiting the top card, take the opportunity to slip the little finger of the left hand immediately under the card next below it, and as you replace the top one make the pass at that point. You now have the third couple placed top and bottom. Make the drawer name them, ruffle the cards, and show them as before, again making the pass to bring the cards just shown at top, with the next following, to the bottom of the pack, which will enable you to exhibit a second couple in like manner. These directions sound a little complicated, but if followed with the cards will be found simple enough.

You may, by way of variation, pretend to forget that a fourth person drew two cards, and, after making the pass as before, appear to be about to proceed to another trick. You will naturally be reminded that so-and-so drew two cards. Apologizing for the oversight, you beg
him to say what his cards were. When he does so, you say: "To tell you the truth, I have quite lost sight of them; but it is of no consequence, I can easily find them again." Then, nipping the upper end of the cards between the thumb and second finger of the right hand, which should be slightly moistened, you make the pack swing, pendulum fashion, a few inches backward and forward, when the whole of the intermediate cards will fall out, leaving the top and bottom cards alone in your hand. These you hand to the drawer, who is compelled to acknowledge them as the cards he drew.

Torn Corner Card Trick.-Effect: The performer offiers a pack of cards and has one chosen. The person drawing same, writes his name upon the face of the card, and, for the purpose of identification, tears a corner off and retains it in his possession. The remainder of the card is then handed to another person to complete its destruction by tearing it into as many pieces as desired. These fragments are then collected upon a saucer, a little spirits poured over them, and then lighted. While they are burning someone is requested to think of a number. By this time the card will have been reduced to ashes, which the performer sprinkles over the pack with as much impressive formality as possible, and, upon counting down from the top, the card originally selected will be found with the name written upon it, minus, however, the piece held by the person who drew it. The corner is fitted to the card and its identity verified.

Secret:-This feat is particularly adapted to small entertainments. By closely following the directions a sensation is assured.

In securing your engagement, some aorrespondence will have taken place with some person in authority at the club under whose auspices the entertainment is to be given. This gentleman will naturally be well-known and above the suspicion of confederacy. For the feat you will require two duplicate cards. Take one of them

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and lay it face up. Over this place a sheet of carbon or tracing paper, and upon that, one of the letters bearing the signature of the person upon whom you intend to practice the experiment. By going over the signature lightly you will obtain an exact copy upon the card, which will pass muster with any but the most critical. After removing the carbon paper, it will be well to go over the signature again with a soft pencil such as you intend to hand to your assistant to write the name later. Now tear off one corner of the prepared card and lay it on top of the pack covering it with the duplicate, and you are ready to perform the trick. Make the pass and thus bring the two cards to the center; force the unprepared card upon the person whose name you have previously forged, and hand him the pencil with the request that he will write his name and tear off a corner. Meanwhile you again make the pass, bringing the prepared card to the top. The torn corner being at the lower right hand side, covered by the fingers, escapes notice. Receive the card back in the right hand, and in turning towards another gentleman with a request that it be completely demolished, the top change is made and you really hand him the duplicate card. As one corner is missing and it still bears what is, presumably, a well-known signature, there is never even the faintest suspicion of trickery so far. While the card is being torn up and burnt, request some person to think of a number, after which you have only to place the card in that position to conclude the trick.

As the latter feat alone is very well known, and almost every performer has some favorite method of presenting it, I would say no more, were it not that I am in a position to acquaint you with an entirely new and novel plan to bring about this result. The card, it will be remembered, was left at the bottom after the change. The pack is held in the left hand, face down, and is then bent outwards by the fingers and thumb of the right hand, after which the cards are released at the lower corner, one at a time, by the thumb of the right hand,
and they naturally slip against the palm of the left hand. The pressure of the thumb enables the performer to count exactly the number desired, after which the little finger is slipped between them and the rest of the pack, the pass made which brings them to the top, leaving the chosen card in the correct position for the finale. As it takes quite a few moments for the fragments in the saucer to burn away, and attention is usually distracted by the flames, the last manoeuvre will escape detection even if accomplished in the most deliberate manner. The movement in counting the cards can best be described as a noiseless ruffle with the thumb of the right hand. The illustration (Fig. 31) will assist further in making the sleight clear.


Fig. 31.
The possibilities for dramatic effect are so great that I know of no better or more sensational card trick for close work.

## CHAPTER V.

## GARD TRICKS REQUIRING SPECIAL APPARATUS.

I propose to describe in this chapter such card tricks as require the aid of some mechanical appliance or apparatus, but are still appropriate for a drawing-room performance. There are some few tricks performed with cards (such as the Fairy Star, the Demon's Head, and the like) which necessitate the use of a mechanical table, or other apparatus of an elaborate and costly character. These will not be here noticed, but will be given, at the close of the work, in the portion devoted to "Stage Tricks."

I may here anticipate a not unlikely question on the part of the student-viz.: "How can I best obtain the necessary apparatus?" In some instances, an amateur with a mechanical turn may be able to manufacture his appliances for himself; and where this is the case, I would by no means discourage his doing so, as he will thereby derive a double amusement from his study of the magic art. But where the student has not the ability or inclination to do this, I should strongly advise him not to attempt to have his apparatus made to order by persons unaccustomed to this class of work, but to go directly to one of the regular depots. Magical apparatus requires so much precision in its details, and so much attention to apparent trifles, that the first attempt of any workman, however skillful, is almost sure to be a failure; and by the time the defects are rectified, the purchaser will find that he has paid more for a clumsy makeshift than he would have done for a thoroughly good article had he gone to the right place. Experience will quickly prove that inferior apparatus is dear at any price.

The Cards Rising Through tee Air.-In this form of the Rising Card Trick, the performer holds the pack in the right hand and commands the first one of the selected cards to rise. The card leaves the pack as commanded and is seen floating through the air into the conjurer's left hand, which is held some three feet above the pack. The card is seized, shown from all sides, and the same process repeated with the remaining chosen cards.
Each one of the cards that rises in this mysterious manner, is slightly prepared by gluing on the back two small strips A B cut from cards of a similar design. The strips are bent over in the shape of a hook as indicated in Fig. 32.


Fig. 32.
For the sake of distinctness the hooks are made verỳ perceptible in the diagram, although in reality they
are hardly noticeable, especially if cards of an intricate pattern are used. These cards, all prepared alike, are concealed about the person of the conjurer, who commences the experiment by forcing similar cards. After the forced cards have been returned to the pack, the performer on his way to the table adds to it the prepared cards, placing them on the top.

Stretched horizontally across the stage at a distance of about six feet or more from the floor, is a black silk thread A, Fig. 33, directly under which the artist takes his position. One end of this thread is fastened to a hook behind the left wing, while the other end


Fig. 33.
passes through a screw eye attached behind the right wing, and is allowed to hang down three or four feet. To this end of the thread is attached a small bag which contains a few shot, the whole arrangement serving simply as a weight to pull up the card. Care must be taken to have the bag just a trifle heavier than one card.

While stating what is about to take place and indicating the process by a gesture, the performer elevates the left hand and with it brings down the thread to the position A2, and slips it under the hooks of the rear card (A B, Fig. 32), holding the pack rather firmly, so
that the card will not make a premature appearance. At the proper time, he slightly relaxes his hold on the cards and the rear one is slowly carried, by the thread, up to the left hand, elevated to receive it, which in bringing down the card, fetches the thread as well. The latter is slipped under the hooks of the next selected card, which is now on the bottom of the pack. Thus all the chosen cards are successively made to rise in the same manner as the first one.

Changing Card-boxes, and Tricks Performed With Them.-The changing card-box in its simplest form is a small flat box in walnut or mahogany. (See Fig. 34.)


Fig. 34.
Its outside measurement is four inches by three, and not quite an inch deep. Inside it is just large enough to admit an ordinary-sized playing card. The upper and lower portions of the box, which are connected by hinges, are exactly alike in depth, and each is polished externally, so that the box, which, when open, lies flat like a book, may be closed up either way; and either portion will, according as it is placed, become box or lid in turn. Thus, by using a card which, unknown to the audience, has two faces-e. g., an ace of hearts on the one side,
and an ace of spades on the other-and placing such card in one side of the open box, you have only to close the box with that side uppermost, or to turn over the box as you place it on the table, to transform the card just shown into a different one. There is nothing in the appearance of the box itself to indicate that it has been turned, so to speak, wrong side up, and a very little practice will enable you to turn it over, as you place it on the table, without attracting observation.

There is a further appliance in connection with the box in question, which, however, may be used with or without it, as may best suit the trick in hand. This is a loose slab, $a$, of the same wood of which the interior of the box is made, of the thickness of cardboard, and of such a size as to fit closely, though not tightly, in either half of the box. When so placed, it has the appearance of the inside top or bottom of the box. When the box is closed in such manner that the part in which this slab is placed is uppermost, the slab falls into the lower portion, thus forming a false bottom on whichever side happens to be undermost. If a card (say the ace of hearts) be secretly placed in either side of the box, and this slab placed on it, the box will appear empty. If now another card (say the knave of spades) be openly placed in either side, and the box closed in such manner that the portion containing the false bottom is undermost, no change will take place; but if, either in closing the box or subsequently, it is so placed that the side containing the false bottom becomes uppermost, the false bottom will at once drop into the opposite division, and on re-opening the box the ace of hearts will be revealed, and the knave of spades will in its turn be concealed. The effect to the spectators is as if the knave of spades had changed into the ace of hearts.

These card-boxes are frequently worked in pairs, as follows: The boxes are prepared by placing a different card secretly in each, say an ace of hearts in the one, and a knave of spades in the other. The performer
brings them forward to the company, each hanging wide open, and held by one corner only, with the first and second finger inside, and the thumb outside the box, taking care, however, to hold each by the side containing the false bottom, which is thus kept in position by the pressure of the fingers. So held, the boxes appear absolutely empty. Having drawn attention to the entire absence of any preparation, the performer lays them open upon the table, and, taking up a pack of cards, requests two of the company each to draw one. They, of course, imagine that they are making a free choice, but in reality he forces (either by sleight-of-hand, or by means of a forcing pack) the ace of hearts and the knave of spades. Again bringing forward the two boxes, he requests each person to place his card in one of them, taking care so to arrange that the person who has drawn the ace of hearts shall place it in the box already containing the concealed knave of spades, and vice versa. Closing each box with the portion containing the false bottom uppermost, he now announces that at his command the cards will change places, which, on re-opening the boxes, they appear to have done. By again turning over the boxes, they may be made to return to their original quarters.

Numerous other good tricks may be performed with the aid of these boxes, which should form part of the collection of every conjurer. By placing a given card beforehand beneath the false bottom, and forcing a like card, you may allow the card drawn to be torn into twenty pieces, and yet by placing the fragments in the box, or firing them at it from a pistol, restore the card instantly, as at first. In like manner, you may cause a given card to be found in the apparently empty box, or may cause a card openly placed therein to vanish altogether. The changing-box is also sometimes employed by those who are not proficient in sleight-of-hand as a substitute for forcing, in the following manner: The performer requests some person to draw a card, and, without looking at it, to place it face downwards in the
box for supposed safe keeping. The box is presently opened by the same or some other person, who is requested to note what the card is. He does so, believing the card to be that which was drawn, and which he had just before seen placed in the box; whereas the card he now examines is, in reality, the one concealed beforehand in the box by the performer to suit his purpose, the card actually drawn being now hidden by the false bottom.
Mechanical Changing Cards.-These are of two or three kinds, but all have the same object, viz, : the apparent transformation of the card to a different one. In some cases the change is from a court card of one suit to the same card of another suit-e. g.: a king of spades to a king of hearts, involving merely the alteration of the pip in the corner. This is effected by having the card made double, that portion of the front card on which the pip should be being cut out. The hindmost card, which is pasted only round the extreme edge to the front one, is a plain white card, but with appropriate pip, say a spade, neatly painted in the proper position, to allow of its showing through the opening in the front card, which thus has the appearance of an ordinary king of spades. Between the two cards is a moveable slip, worked by a pin through a slip in the back, on which is painted a heart pip. By moving this slip, the heart is in turn brought opposite the opening, covering the spade pip, so that the card now appears to be the king of hearts. The card as above described is of the old singleheaded pattern, but the same principle may be applied to double-headed cards. In this case both of the "pip" portions of the front card are cut away as in Fig. 35, while on the upper corresponding portion of the hinder card is painted (say) a spade, and on the lower a heart, as in Fig. 36. The movable slip is of such a shape and size as to cover the one or the other, according as it is drawn up or down; and on the upper part of this (see Fig. 37) is painted a heart, and on the lower a spadeWhen, therefore, the slip is pushed up, the heart pip on
the slip and the heart pip on the hindmost card are shown, so that the card appears to be a king of hearts. When, on the other hand, the slip is drawn down, the spade pip of the hinder card is revealed, and at the same time the slip covers over the heart pip of this lat ter, and exhibits its own spade pip, giving the card the appearance of a king of spades.


These mechanical cards are used in various ways. Such a card may be introduced with good effect in the trick of the "rising cards," before described. The king of spades, we will suppose, is one of the cards drawn. The changing card is made one of those which rise from the pack, but is so arranged as to appear as the king of hearts. When the king of spades is called for, this card rises. The performer feigns to be taken by surprise, and ask the person who drew the card, whether he is sure he is not mistaken, and that the card he drew was not the king of hearts. The drawer naturally maintains the correctness of his own recollection, while the performer as stoutly insists that the cards never deceive him, and that, if the king of spades had been drawn, the king of spades would infallibly have risen when called. At last, as if tired of the dispute, he says : "Well, I still maintain you were mistaken; but as you insist that your card was the king of spades, why, we will make this into a king of spades." So saying, and holding up the card between his middle finger and thumb, he
touches its face with his wand, and at the same moment with the first finger moves the slide, when the card changes to the king of spades. The little dispute as to the supposed mistake, which the spectators have hitherto believed to be genuine, gives to the transformation an impromptu air which is very effective. The performer may go on to say, still holding up the card, "You are quite satisfied now, I presume." The drawer assents. "Then if so, as it would spoil my pack to have two kings of spades in it, you will allow me, before proceeding further, to change the card back again. Change! ${ }^{\prime \prime}$ Again he touches the card with his wand, and it is seen to change back again to the king of hearts.

Another mode of using the mechanical card is in conjunction with the changing card-boxes, above described. In this case the changing cards are used in pairs. One of them, arranged as the king of spades, is secretly placed in the one box, and the other, arranged as the king of hearts, in the other. Two of the spectators are requested each to draw a card, and two genuine kings of the same respective suits are forced upon them. Taking the cards so drawn, and showing the card boxes apparently empty, the performer places one of the cards in each, taking care to place the king of hearts in the box containing the ostensible king of spades, and vice versa. He now commands the two cards to change places, and, opening the boxes, shows that his commands are obeyed. He then remarks, "Now, I dare say you think that the trick depends on the boxes. To show you that it is not so, I will again order the cards to change; and this time I will not place them in the boxes, but will merely take one in each hand, so. If your eyes are quick enough, you will see the cards fly across from one hand to the other. Observe, the king of spades is in my right hand, and the king of hearts in my left. One, two, three-Change!'" (with a stamp and a slight flourish of the cards). "Did you see them fly? Here is the king of hearts in my right hand, and the king of spades has passed to my left. I will put them in the
boxes once more." You put each in the box which it before occupied, in doing so again make the change, but without closing the boxes. You continue, "Please to notice which I put in each box-the king of hearts in the right hand box, and the king of spades in the left hand box. It that right?" The reply is in the affirmative. "Excuse me," you say, "I fear you are mistaken. You did not notice, perhaps, that the cards had changed again." You show that this is so, and then close the boxes so as to bring the cards originally drawn uppermost. Opening them once more, you show that the cards have again changed, and then remark, "I have shown you that the secret does not lie in the boxes, perhaps you would like to satisfy yourselves that there is no preparation about the cards," which you accordingly hand for examination.

Another form of changing card is known as a "flap card." This is a card across whose center is fixed a movable flap of exactly half its size. When the flap is folded one way it covers the upper half and when it is folded the other way the lower half of the card, in each case revealing a different surface. (See Fig. 38.)


Fig. 38.
On one of such surfaces is pasted, say, a queen of clubs (made thin by peeling off the back), and on the other surface, say, a nine of diamonds, prepared in like man-
ner. Thus the card will appear, according as the flap is folded, alternately a queen of clubs or nine of diamonds. An india-rubber spring tends to draw the flap down, so that the normal condition of the card is to appear as, say, the nine of diamonds. When exhibited to the company, the flap is forced over in the opposite direction, so that the card appears to be the queen of clubs. The thumb and finger hold the flap down until the right moment, when they relax their pressure, and the flap flying up, the card is instantly transformed to the nine of diamonds.

The Crystal Frame.-The frame encloses a couple of sheets of clear glass, the one over the other, so that the spectators can see completely through them. It is placed on a miniature easel, so that the audience can see not only through but under and on all sides of it; the appearance of the complete apparatus being as shown in. Fig. 39. On the cards being thrown at the frame, the chosen card appears instantaneously between the two


Fig. 39.
sheets of glass. The sheets of glass have to be taken out of the frame and separated before the card can be removed. This done, card, frame, glasses and easel are alike handed to the company, but no clue to the mystery will be found.

The motive power lies in a black silk thread, pulled by an assistant behind the scenes. The marvel of the trick lies in the apparent absence of all possible cover for the car beforehand; for the black and godl beading of which the frame is composed is barely half an inch thick, and the easel is of course a mere skeleton, affording apparently no hiding place. On close examination, however, an acute observer might perceive that the wooden ledge or bar on which the frame rests, when in position, widens slightly in its central portion towards the rear. This makes a miniature shelf, extending backwards for some three inches behind the frame; and on this, face downwards, lies the card, in a slightly bent position, its upper edge lying just between the lower edges of the two sheets of glass. The little shelf slopes slightly downwards, and so ingeniously are the angles calculated, that as I write, with the apparatus on the table before me at less than three feet distant, the card, though quite uncovered, is absolutely invisible from the front. The silk thread, attached to the extreme edge of the card, passes upwards between the two glasses, over the edge of the hinder glass and through a minute hole in the central leg of the easel. The thread is invisible by gaslight. A quick pull brings the card to the center of the frame, no one being able to see how it arrived there; and a further effect may then be produced by ordering it to travel slowly to the top of the frame. This done, your assistant keeps the line taut, so as to retain it in that position, and thereby enables you, in taking the frame off the easel, to detach the thread, after which you remove the hinder glass, take out the card, and offer the whole for examination. The easel is, as if for greater convenience, dismounted, and handed in a folded condition, and not one person in a hundred will ob-
serve that the little shelf, often found in front of an ordinary easel as a resting-place for brushes, etc., is in this case turned to the rear, or, even if he does so, he will not attach any special significance to the fact.

It is well to place the frame and easel ready for use on a center or side-table, before the performance begins. There is, however, nothing to prevent their being brought in afterwards, with due precaution against a premature pull of the thread. The frame and card must of course be already in position on the easel.

The Cabalistic Star for the Production of Cards. -This piece of apparatus consists of a metal center about four inches in diameter, with six points or rays, each ten inches long and three-eighths of an inch thick. There is a ring at the top wherewith to suspend the apparatus, whose general appearance is as shown in Fig. 40.

Six cards are chosen and replaced in the pack, which is then shuffled and thrown at the suspended star. With the quickness of a flash of lightning, the selected cards appear one on each point of the star as shown in Fig. 41.


Fig. 40.

The secret lies in the fact that each of the "rays" is in reality a brass tube, through which passes a piece of cord elastic. At the outer end of the elastic, and secured by a knot, is attached a card, which is normally drawn by the tension of the elastic to the outer end of the tube. When it is desired to use the apparatus, each card in succession is drawn away to the full stretch of the elastic, and secured behind the center of the star by pressure on a little pinpoint. The star then has the


Fig. 41.
appearance shown in Fig. 40. The withdrawal of the pinpoint, or (which comes to the same thing) any outward pressure of the cards so as to force them off the point, at once releases them from bondage, and they instantly tly back each to its particular point, as shown in Fig. 41. The mode of releasing them from the point varies. The simplest plan is to have a cylindrical plug or piston, working easily through a hole in the center, with a backward and forward play of a little more than the length of the pin-point (say, a quarter of an inch). This terminates in a boss or button towards the front. When
the star is "set" for use, this plug is pushed forwards to its full extent. Any pressure, however, say a tap from the performer's wand, or the impact of a pack of cards thrown at the star, thrusts it backwards, thereby forcing the cards off the point, and leaving them free to fly back to their normal positions.

There are other methods of effecting the release of the cards, some by the pull of a thread, some by the aid of electricity. In this case there is no need for the star to be touched at all, and the most effective mode of exhibiting the trick is to have the drawn cards torn up and placed in a pistol, which is then fired at the star.

It is hardly necessary to remark that the drawn cards are "forced," the star having been prepared beforehand with corresponding cards.

For the benefit of the student who desires to make a specialty of card tricks I would recommend any of the excellent treatises devoted exclusively to this particular branch of legerdemain and published by Fred'k J. Drake \& Co., Chicago.

## CHAPTER VI.

## PRINCIPIAS OF SLEIGHT-OF-HAND MORE ESPECIALLY APPLIC-

## ABLE TO COIN TRICKS.

Before attempting tricks with coin, it will be necessary for the student to practice certain sleights and passes which more especially belong to this particular branch of the magic art, though the sleight-of-hand used in "coin tricks" is more or less applicable to most other small objects. The principles which I have given for card tricks will not here be of any direct assistance to the student; but the readiness of hand and eye which he will have acquired, if he has diligently put in practice the instructions already given, will be of great value to him as a preliminary training, and it may safely be predicted that any person who is a first-rate performer with cards will find little difficulty in any other branch of the art.

The first sleight which the novice must seek to acquire is that of 'palming'' i. e., secretly holding an object in the open hand by the contraction of the palm. To acquire this accomplishment, take a half dollar (this being the most convenient in point of size), and lay it on the palm of the open hand. (See Fig. 42.) Now close the hand very slightly, and if you have placed the coin on the right spot (which a few trials will quickly indicate), the contraction of the palm around the edges will hold it securely (see Fig. 43), and you may move the hand and arm in any direction without fear of dropping it. You should next accustom yourself to use the hand and fingers easily and naturally, while still holding the coin as described. A very little practice will enable you to do this. You must bear in mind while practicing always to keep the inside of the palm either downwards
or towards your own body, as any reverse movement would expose the concealed coin. When you are able to hold the coin comfortably in the right hand, practice in like manner with the left, after which you may substitute for the coin a watch, an egg, or a small lemonall these being articles of frequent use in conjuring.

Having thoroughly mastered this first lesson, you may proceed to the study of the various "passes," all of which have the same object, viz.: the apparent transfer of an article from one hand to the other. In making passes the same movement should not be frequently repeated, as this may excite suspicion and possibly lead to detection.


Fig. 42.


Fig. 43.

It should be here mentioned that the term "palming," which I have so far used as meaning the act of holding an article, is also employed to signify the act of placing an article in the palm by any of the various passes. The context will readily indicate in which of the two senses the term is used in any given passage.

It is hardly necessary to remark that the diagrams represent the hands of the performer as seen by himself.

Take the coin in the right hand, between the second and third fingers and the thumb (see Fig. 44), letting it, however, really be supported by the fingers, and only steadied by the thumb. Now move the thumb out of
the way, and close the second and third fingers, with the coin balanced on them, into the palm. (See Fig. 45.) If the coin is placed right in the first instance, you will find that this motion will put it precisely in the position above described as the proper one for palming ; and on again extending the fingers, the coin is left palmed, as in Fig. 43. When you can do this easily with the hand at rest, you must practice doing the same thing with the right hand in motion toward the left, which should meet it open, and should close the moment that the fingers of the right hand touch its palm, as though upon the coin which you have by this movement feigned to transfer to it. The left hand must thenceforward remain closed, as if holding the coin, and the right hand hang loosely open, as if empty.


Fig. 44.


Fig. 45.

In the case of an article of larger size than a coinas, for instance, a watch or an egg-you need not take the article with the fingers, but may let it simply lie c.n the palm of the right hand, slightly closing that hand as you move it towards the left. The greater extent of surface in this case will give you plenty of hold, without the necessity of pressing the article into the palm. Remember that, in any case, the two hands must work in harmony, as in the genuine act of passing an article from the one hand to the other. The left hand must therefore rise to mect the right, but should not begin its journey until the right hand begins its own. Noth-
ing looks more aẃkward or unnatural than to see the left hand extended with open palm, before the right hand has begun to move towards it.

After the pass is made, a judicious use of the wand will materially assist in concealing the fact that the object still remains in the right hand. For this purpose the performer should, before commencing the pass, carelessly place the wand under either arm, as though merely to leave his hands free. Immediately that the pass is made the right hand should, with a sort of back-handed movement, which under the circumstances is perfectly natural, grasp the wand, draw it from under the arm, and thenceforth retain it till an opportunity occurs of disposing of the coin as may be necessary. The position of the fingers in the act of holding the wand is such as to effectually mask the concealed coin, while yet the hand appears perfectly easy and natural. The same expedient may be employed with equal advantage in the remaining passes.

To Secretly Change a Coin.-You desire, we will suppose, to exchange-or, in conjurers' parlance, to "ring'"-a coin, marked by a spectator. You have the latter, which we will call the "substitute,' ready palmed in your left hand, of course taking care to keep the palm turned away from the audience. Taking the marked coin in the right hand, you palm it in that hand by Pass 1, but instead of closing the left hand, as the fingers of the right touch it, keep that hand loosely open, and show lying on its palm the substitute, which the spectators take to be the original just placed there by your right hand.

## the continuous back and front coin palm.

To Palm a Coin and Yet Show Both Sides of the Hand Empty.-This novel sleight, which has brought about a revolution in coin manipulation, is the invention of T. Nelson Downs, "The King of Koins," and has
made for him a fortune and reputation second to none in the magical fraternity.

As the limits of this book will not permit me to do justice to all of Downs' tricks I shall confine myself to explaining his back and front palm, but would state for those of our readers who wish to follow up the subject that Mr. Downs recently published a book thoroughly explaining his methods. The same is now issued under the title of, "Tricks With Coins," by T. Nelson Downs, and published by Fred'k Drake \& Co., Chicago.

Now to describe the sleight. The coin (half dollar) is placed on the hand as shown in Fig. 46.


Fig. 46.
The two middle fingers are now bent down under the coin thereby causing it to revolve between the first and fourth fingers, to the back of the hand, as illustrated in Fig. 47, the hand being shown empty. The little finger now releases the coin (which remains held between the first and second fingers). The second and third fingurs now grip the coin and transfer it to the palm of the hand, thereby enabling the back of the hand to be shown.

These directions may sound somewhat complicated,
but after a little practice the various movements will become quite clear.


Fig. 47.
To show what practice will do, I may mention that Mr. Downs performs this sleight with seven coins at one time and finishes by reproducing them singly from the back of the hand.

## CHAPTER VII.

COIN TRICKS WITHOUT APPARATUS.
To Pull Four Half-dollars Through a Handker-chief.-You begin by borrowing your marked half-dollars and a silk or cambric handkerchief. You then request the assistance of a very strong man. This gives an opportunity for a little fun in the selection. Having at last found a volunteer to your liking, you seat him on a chair facing the company. Spreading the handkerchicf on your left palm, and placing the four coins upon it, you close your hand upon them through the handkerchief, and hand them to him, requesting him to hold them firmly. Then, as if suddenly recollecting yourself, you say, "Pardon me, I have omitted one little detail which is rather important. Oblige me with the handkerchief again for one moment, if you please. I ought to have shown the company that there are no holes in it." (The last sentence should not be pronounced until you have gained possession of the handkerchief, as the company might possibly declare themselves satisfied of the fact without examination, which would not answer your purpose.) The handkerchief being returned to you, you spread it out to show that it is free from holes, coming among the audience to do so, and appearing to lay great stress upon the fact. Again spreading it over your left hand, you count the coins one by one upon it; then giving a glance around at the company, you say, as you quickly return to your platform, "You have all seen that the four coins are fairly wrapped in the handkerchief," or make any other remark in order to draw the general attention (as a sharp, quick remark almost always will) to your face and away from your hands. At the same moment move the left thumb over the face of the coins, thereby covering them with a fold of
the handkerchief, and seize them, through the fold thus made, between the thumb and fingers of the right hand, as indicated in Fig. 48 immediately withdrawing the left hand. The coins will now be held in the right hand, the handkerchief hanging down loosely around them.


Fig. 48.
To any one who has not watched your movements with more than ordinary vigilance, it will appear that the coins are within and under the handkerchief, though they are, in reality, wrapped in an external fold. Giving them a twist round in the handkerchief, you hand it to the person assisting you, asking him to say whether the money is still there, to which he naturally replies in the affirmative. You then tell him to grasp the handkerchief with both hands three or four inches below the coins, and to hold as tightly as he possibly can. Placing your wand under your right arm, and taking hold of the coins (through the handkerchief) with both hands, the right hand undermost, you begin to pull against him, making a show of pulling with great force, and remark-
ing that you are very glad it is not your handkerchief, that you should not have thought he was so strong, etc. Meanwhile, and while the spectators are enjoying the discomfiture of the owner of the handkerchief, you untwist the latter and secretly get the money out of the fold into your right hand and palm it therein. Give one last pull with your left hand, and let go smartly, observing that you fear that you must give it up, and own yourself conquered. Take your wand in your right hand; this will make it seem natural for you to keep your right hand closed, and will materially aid in concealing the fact that the money is therein. Your antagonist, or the spectators for him, will by this time have discovered that the money has vanished; but you should pretend to be unconscious of the fact, and request him to give it back, that you may return it to the owners. He naturally declares that he has not it. With all the seriousness that you can command, you insist that he has it, and that he must restore it. On his continued denial you suggest that he should search his pockets, which you tap, one after another, with your wand, each giving a metallic sound as if containing money; but the coins are still not to be found. At last, after all his pockets have been tried in vain, you, as if upon a sudden thought, tap the leg of his trousers, the metallic clink still following every tap of the wand till you have nearly reached his feet, when you exclaim, "Yes, there it is. Will you have the kindness to put your foot on that chair?" He does so, and quickly transferring your wand to the left hand, with the fingers of the right you turn up the edge of the trouser, giving at the same time a slight shake, when the four coins are seen to fall out, to the great surprise of the victim.

This effect is produced as follows: The coins being in your right hand, you introduce them with the second, third and fourth fingers under the edge of the trouser; then, with the first finger and thumb which are left outside, you nip them through the cloth, and hold them an instant till you have withdrawn the remaining fingers, when with a slight shake you let them fall.

The metallic clink on tapping the pockets may be produced in two ways. One method is to use a hollow metal wand, japanned to match the one you ordinarily use, and containing throughout its length a loose piece of thick wire, which, striking against the sides of the tube, exactly imitates the clink of money. The other mode is to use merely, the ordinary wand, allowing the end which you hold to chink against the money held in the same hand. With a little practice the effect is equally deceptive as with the special wand.

To Extract a Coin from a Folded Paper.-The paper should be square, moderately stiff, and about four times the diameter of the coin each way. Place the coin in the center, and fold down each side fairly over it, showing at each stage that the coin is still there. Two sides having been folded, take the paper and coin upright in the right hand. Fold over the upper end, at the same time allowing the coin to slide down into the lower. Fold this latter over with the coin in it, and give all to some one to hold. The paper still contains the coin, but instead of being, as the spectators suppose, in the middle, it is really in the outer fold, whence you can let it slide out into your hand at pleasure.

## CHAPTER VIII.

## TRICKS WITH COIN REQUIRING SPECIAL APPARATUS.

The Rattle-Box. To Make a Coin Vanish from the Box, Though Still Heard to Rattle Within It.-This is a useful and ingenious little piece of apparatus. It is an oblong mahogany box, with a sliding lid. Its dimensions are about three inches by two, and one inch in depth externally; internally, it is only half that depth, and the end piece of the lid is of such a depth as to be flush with the bottom. Thus if a coin be placed in the box, and the box held in such a position as to slant downwards to the opening, the coin will of its own weight fall into the hand that holds the box (see Fig. 49), thus giving the performer possession of it without the knowledge of the audience.


Fig. 49.
Between the true and the false bottom of the box is placed a slip of zinc, which, when the box is shaken laterally, moves from side to side, exactly simulating the sound of a coin shaken in the box. In its normal condition, however, this slip of zinc is held fast (and there-
fore kept silent) by the action of a spring also placed between the two bottoms, but is released for the time being by a pressure on a particular part of the outer bottom (the part in contact with the fingers in Fig. 49). A casual inspection of the box suggests nothing, save, perhaps, that its internal space is somewhat shallow in proportion to its external measurement.

The mode of using it is as iollows: The performer invites any person to mark a coin, and to place it in the box, which he holds for that purpose as represented in the figure; and the coin is thus no sooner placed in the box than it falls into his hand. Transferring the box to the other hand, and pressing the spring, he shakes it to show by the sound that the coin is still there; then, leaving the box on the table, he prepares for the next phase of the trick by secretly placing the coin, which the spectators believe to be still in the box, in any other apparatus in which he desires it to be found, or makes such other disposition of it as may be necessary. Having done this, and having indicated the direction in which he is about to command the coin to pass, he once more shakes the box to show that it is still in statu quo. Then, with the mystic word "Pass!' he opens the box, which is found empty, and shows that his commands have been obeyed.

The Demon Handkerchief (Le Mouchoir du Diable). -This is a recent improvement on the above, and possesses a much wider range of utility, inasmuch as it really does cause the disappearance of any article placed under it, not only coin, but a card, an egg, a watch, or any article of moderate size. It consists of two handkerchiefs, of the same pattern, stitched together all around the edges, and with a slit of about four inches in length cut in the middle of one of them. The whole space between the two handkerchiefs thus forms a kind of pocket, of which the slit above mentioned is the only opening. In shaking or otherwise manipulating the handkerchief, the performer takes care always to keep the side with the slit
away from the spectators, to whom the handkerchief appears to be merely the ordinary article of everyday use. When he desires by its means to cause the disappearance of anything, he carelessly throws the handkerchief over the article, at the same time secretly passing the latter through the slit in the under side, and hands it thus covered to some one to hold. Then, taking the handkerchief by one corner, he requests him to let go, when the object is retained in the space between the two handkerchiefs, appearing to have vanished into empty air.

The Nest of Boxes.-This consists of a number, generally six, but sometimes more, of circular wooden boxes, one within the other, the largest or outer box having much the appearance, but being nearly double the size, of an ordinary tooth-powder box, and the smallest being just large enough to contain a quarter. The series is so accurately made, that by arranging the boxes in due order one within the other, and the lids in like manner, you may, by simply putting on all the lids together, close all the boxes at once, though they can only be opened one by one.

These are placed-the boxes together and the lids to-gether-anywhere so as to be just out of sight of the audience. If on your table, they may be hidden by any more bulky article. Having secretly obtained possession, by either of the means before described, of a coin which is ostensibly deposited in some other piece of apparatus, e. g., the Davenport Cabinet, you seize your opportunity to drop it into the innermost box, and to put on the united lids. You then bring forward the nest of boxes (which the spectators naturally take to be one box only), and announce that the quarter will at your command pass from the place in which it has been deposited into the box which you hold in your hand, and which you forthwith deliver to one of the audience for safe keeping. Touching both articles with the mystic wand, you invite inspection of the first to show that the money has departed, and then of the box, wherein it is to be found. The holder opens the box, and finds another, and then
another, and in the innermost of all, the marked coin. Seeing how long it has taken to open the several boxes, the spectators naturally infer that it must take as long to close them, and (apart from the other mysteries of the trick), are utterly at a loss to imagine how, with the mere moment of time at your command, you could have managed to insert the coin, and close so many boxes.

If you desire to use the nest for a coin larger than a quarter, you can make it available for that purpose by removing beforehand the smallest box. Nests of square boxes, with hinged lids and self-closing locks, are made, both in wood and in tin, on the same principle. These are designed for larger articles, and greatly vary in size and price.

The Half-dollar Wand.-This is a wand, apparently of ebony, but really of brass, japanned black. It is about twelve inches in length, and five-eighths of an inch in diameter. On one side of it, and so placed as to be just under the ball of the thumb when the wand is held in the hand, is a little stud, which moves backwards and forwards for a short distance (about an inch and a quarter) like the sliding ring of a pencil case. When this stud is pressed forward, a half-dollar appears on the opposite end of the wand (see Fig. 51), retiring within it when the stud is again drawn back. 'The half-dollar is a genuine one, but it is cut into three portions, as indicated in Fig. 52, which represents a transverse section of it at right angles to the actual cuts. Each of the three segments is attached to a piece of watch-spring, and from the direction of the cuts it is obvious that, when these pieces of watch-spring are pressed together (as they naturaliy are when drawn back into the wand), $c$ will be drawn behind, and $a$ in front of $b$. (See Fig. 50).

The wand can be used as follows: The performer palms in his left hand as many half-dollars as he intends to produce. Then, taking the wand in the right hand,
and lightly touching with it the spot whence he desires to (apparently) produce a half-dollar, he pushes forward the stud, and the split coin appears on the opposite end of the wand. He now draws the upper part of the wand through the left hand, at the same moment pressing back the stud, and causing the split coin to retire within the wand, immediately handing for exam-


Fig. 50. Fig. 51. Fig. 52.
ination with the left hand one of the half-dollars already placed there, and which by this gesture he appears to have just taken from the top of the wand. This is again repeated, and another half-dollar exhibited, till the stock in the left hand is exhausted.

It is desirable, on each occasion of pressing forward or withdrawing the stud, to place the opposite end of the wand in such a situation as to be a little shielded from the eyes of the spectators, so that they may not see the actual appearance or disappearance of the coin. A very slight "cover" will be sufficient. The end of the wand may be placed within a person's open mouth (and withdrawn with the half dollar thereon), within a pocket, or the like. Where no such cover is available a quick semi-circular sweep should be made with the wand as the coin is protruded or withdrawn.

With the aid of this wand the passage of the four half dollars from the casket to the glass, just described, becomes still more effective. The four substitute half dollars having been placed in the casket and the latter closed, the performer announces that he will withdraw them visibly, one by one, and will then invisibly pass them into the glass. Further, to prove that the trick is not performed by any mechanical or physical means, he will not even take the casket in his hand, but will withdraw the coins one by one with his wand, and thence pass them directly into the glass. Touching the casket with the wand, he presses the stud, and shows the half dollars on the end. Apparently taking off the coin with his left hand, as before described (the hand, however, being in this case empty), he makes the motion of throwing the coin from the hand to the glass, saying, "Pass!" The sound of a falling coin is heard (as already explained), and he shows that his hand is empty, the same process being repeated as to the remaining coins.

The wand may also be effectively introduced in the trick of the shower of money, which next follows. After having caught in the ordinary manner such number of coins as he thinks fit, the performer perceives, or pretends to perceive, that the audience suspects that the coins are in some manner concealed in his right hand. To show that this is not the case he offers to catch a few coins on the top of his wand instead of in his hand, and finishes the trick by producing two or three on the wand accordingly. Wherever you can, as in this instance, produce the same result by two wholly different methods, the effect on the spectators is most bewildering. Their conjectures as to the explanation of the first method being inadmissible as to the second, and vice versa. The more they puzzle over the matter the further they are likely to be from a correct solution.

The Shower of Money.-The magical phenomenon known under this name surpasses the philosopher's stone, in the pursuit of which so many of the wise men of old
expended their lives and fortunes. The alchemist aimed only at producing the raw material, but the magician's quick eye and ready hand gather from space money ready coined. Unfortunately, the experiment is subject to the same drawbacks as the more ancient process, viz. : that each twenty dollars produced cost precisely twenty dollars, leaving hardly sufficient profit to make this form of money making remunerative as a commercial undertaking.

The effect of the trick is as follows: The performer borrows a hat, which he holds in his left hand. Turning up his sleeves, he announces that he requires a certain number, say ten, of half dollars. The spectators put their hands in their pockets with the idea of contributing to the supposed loan; but the professor, anticipating their intention, says, 'No, thank you; I won't trouble you this time. There seems to be a good deal of money about to-night; I think I will help myself. See, here is a half dollar hanging to the gaselier. Here is another climbing up the wall. Here is another just settling on this lady's hair. Excuse me, sir, but you half a half dollar in your whiskers. Permit me, madam; you have just placed your foot on another,' and so on. At each supposed new discovery the performer takes with his right hand, from some place where there clearly was nothing an instant before, a half dollar, which he drops into the hat held in his left hand, finally turning over the hat, and pouring the coins from it, to show that there has been "no deception."

The explanation is very simple, the trick being merely a practical application of the art of "palming," though its effect depends on the manner and address of the operator even more than on his skill in sleight-of-hand. The performer provides himself beforehand with ten half dollars. Of these he palms two in his right hand and the remainder in his left. When he takes the hat he holds it in the left hand, with the fingers inside and the thumb outside, in which position it is comparatively easy to drop the coins one by one from the hand into
the hat. When he pretends to see the first half dollar floating in the air he lets one of the coins in his right hand drop to his finger tips, and, making a clutch at the air, produces it as if just caught. The first coin he really does drop into the hat, taking care that all shall see clearly that he does so. He then goes through a similar process with the second, but when the time comes to drop it into the hat he merely pretends to do so, palming the coin quickly in the right hand, and at the same moment letting fall into the hat one of the coins concealed in his left hand. The spectators, hearing the sound, naturally believe it to be occasioned by the fall of the coin they have just seen. The process is repeated until the coins in the left hand are exhausted. Once more the performer appears to clutch a coin from space, and, showing for the last time that which has all along been in his right hand, tosses it into the air and catches it visibly in the hat. Pouring out the coins on a tray, or into the lap of one of the company, he requests that they may be counted, when they are found to correspond with the number which he has apparently collected from the surrounding atmosphere.

Sometimes a performer, by way of bringing the trick to a smart conclusion, after he has dropped in all the coins, will remark, "The hat begins to get heavy," or he will make some similar observation, at the same time dipping the right hand into the hat, as if to gauge the quantity obtained; and he will then give the money a shake, bringing up the hand with four or five of the coins clipped breadthwise against the lowest joints of the second and third fingers. Then he will pretend to catch in quick succession that number of coins, each time sliding one of the coins with the thumb to the finger tips, and tossing it into the hat.

For the latest method of performing this trick I will refer the reader to the chapter entitled "The Miser's Dream,' in '"Tricks with Coins,'' by T. Nelson Downs, published by Fred J. Drake \& Co.

New Coin Catching.-This novel effect will be appreciated by those who introduce the trick just described. The trick consists in catching a few stray half dollars from the air upon the brim of some borrowed hat.
To work this experiment a faked coin must be used. A half dollar will have to be hinged to a small black steel clip (see Fig. 53), which is of a size to fit moderately tight over the brim of a hat. Now the secret should be apparent. A hat is borrowed, and the clip slipped over the brim in the act of returning to the stage.
Because of the hinge the coin will lay down behind the brim, and the clip will not be noticed on account of its being the same color as the hat, which must be held in the right hand, while the left secretly palms two or three coins from some convenient pocket.


Now, if the hat is jerked sharply upward, the half dollar will suddenly appear upon the edge of the brim,
from where it is apparently removed by the left hand. Instead of taking the faked coin away, one of the palmed half dollars is produced and the hinged piece of money pushed back behind the brim.

This operation can be executed any number of times until the supply of palmed money is exhausted; the prepared coin can then be removed in such a manner that the finger and thumb hide the clip while it is being placed on to the table with the other half dollars so mysteriously produced. The illustration (Fig. 54) will explain anything that is not quite clear.

To Producf Coins from a Lighted Candle.-The "candle" in this case is a metal tube, japanned in imitation of wax, with a space an inch or so deep at top for the insertion of a small piece of real candle. In the lower part of the tube is an opening (see Fig. 55), admitting of a number of quarters being packed, one upon another, within the body of the candle, where they are kept in position, just level with the upper part of


Fig. 55.
the opening, by the downward pressure of a spiral spring. The edges of the horizontal part of the opening are turned in on either side just sufficiently to prevent the coins being forced beyond that point, though they can be drawn out horizontally with the tip of the finger with the greatest ease. The construction of the center portion of the candle is, in fact, exactly like that of the brass rouleau purses sold for containing a number of soins.

The candle is brought forward, lighted, and placed on the table. (It is hardly necessary to remark that the opening is kept studiously to the back, and not shown in profile, as in our illustration.) The performer, requiring a quarter for the purpose of some trick, first endeavors, after the usual manner of conjurers, to borrow it, but, bethinking himself, says, "But I need not trouble you-I'll get it from the candle."

So saying, he places his hand behind the candle, and gently strokes it from bottom to top (fingers on one side and thumb on the other), terminating at the flame, at which he makes a sort of pinch. He does this once or twice without result, but at, say, the third "stroke," inserts the tip of the third finger intc the opening, and draws out one coin, which he carries quickly upward, and produces it as if from the flame. The pile is pressed down by the spring, and the next coin brought to the opening, to be produced in due course.

Twelve or more coins may be thus produced in succession.

## CHAPTER IX.

## TRICKS WITH WATCHES AND RINGS.

A Smashed Watch.-This trick is one which always delights the juveniles, the more so if the damaged watch belongs to any of their near relations. The owner does not always look on the matter quite in the same light, but his look of discomfort is part of the play, and the more completely you can convince him that it really is his own timepiece and no other that is receiving such savage treatment the greater the effect of the trick. For the greatest happiness of the greatest number, therefore, I will commence the present chapter by describing one or two little artifices, not generally known, for carrying additional conviction to his mind in this particular.

The first requirement is an ordinary watch-glass, lady's or gentleman's, according to the kind of watch you propose to borrow. This must be scored across and across in various directions with a glazier's diamond; so as to form a sort of "star"' right over its surface. The cuts should be pretty deep, but not deep enough actually to sever the glass. The glass thus prepared should be placed in one of the performer's pochettes, or elsewhere, so as to be readily accessible.

Secondly, the performer should provide himself with a bag, six inches by four, of thin, whitish-brown paper, cuch as confectioners use. Across one corner of this (Fig. 56) must be pasted a three-cornered piece of the same paper, so as to form a little outside pocket. Inside the bag are three or four little pieces of loaf sugar, the size of large peas-kept from rattling by a slip of paper pasted over them. This is placed on the performer's table, or brought forward in his hand, the "pocket" side, of course, being kept away from the audience.

Provided as above, the performer comes forward and asks the loan of a watch. Having procured it, he says that for safe-keeping he will place it in the paper bag, and proceeds apparently to do so, but really places it behind the bag, in the little pocket, as shown in the figure. He shows that both hands are unmistakably empty, the inevitable inference being that the watch is really in the bag, which he forthwith screws up, so that the shape of the watch shall define itself clearly through the paper, and so soon as this point is reached he lets it slip out into his hand. He then lays the bag, still retaining the shape of the watch, on the floor somewhere between the audience and his table, requesting the company to watch it, so as to be sure that it is not tampered with in any way. Standing close beside it, he begins


Fig. 56.
the usual dialogue with the owner of the watch, as to how long he has had it, how it goes, at what value he estimates it in the case of accidents, and so on. In the middle of his observations, he, as if carelessly, shifts his position, and brings his foot down on the paper bag. There is instantly a "scrunch," produced as a matter of fact by the crushing of the lumps of sugar, but, as the audience believes, by the smashing of the watch.
"Dear, dear!" he exclaims, feigning extreme discomfiture, "this is a bad job, a very bad job. And I asked
you all to look so carefully after it. It's your fault, ladies and gentlemen; you ought to have cautioned me." (To the owner): "I'm really very sorry, sir, but you saw exactly how the accident occurred-everybody is liable to accidents. It wasn't my fault, was it? But I'm really very sorry. Let us see the extent of the damage."

In the act of stooping to pick up the bag with the left hand, the performer slips the watch, which remained in his right hand, into the pochette, and brings it out again with the scored watch-glass over the proper glass, and holds both palmed. Opening the bag with great affectation of precaution, he inserts his hand, brings out the watch with the prepared glass over it. To the eyes of the audience and the owner it appears as though the actual glass of the watch were cracked in all directions. A slight pressure of the thumb breaks the superimposed glass, if properly prepared, to fragments.
"Dear, dear! I'm afraid it is a good deal injured, after all. And I'm not a heavy man, either, only one hundred and fifty pounds or so. They really ought to make watches stronger'- (to the owner) - '"don't you think so, sir? However, as the thing is done, we may as well make a finish of it. Here, John, bring me a pestle and mortar."

A pestle and mortar are accordingly brought on by the assistant and placed on the table. The mortar may be of the construction indicated in Fig. 57. It has a hemispherical cavity at bottom, wherein are placed beforehand the fragments of a watch, concealed by a loose piece of boxwood, $b$, which is so shaped as to fit into the lower portion of the pestle. The pestle is, as shown in Fig. 58, in two portions, $a$ and $c, c$ being a duplicate of $b$, but fitting loosely within $a$, whereas $b$ fits it comparatively tightly. It will be seen that when either $c$ or $b$ is in position there is a considerable cavity in the head of the pestle, and this cavity, the interior of which is padded with some soft material, is utilized to carry off the watch.
'The mortar is brought on prepared as above, the pestle
empty, but with $c$ in position. Having reached the stage of the trick already mentioned, the performer, shaking the fragments of glass on to the outspread paper bag, lowers the watch carefully (with its back toward the audience) into the mortar, where it rests on the top of $b$. He takes the pestle in his right hand with a flourish, then grasps the head with the left, while he peers into the mortar, as though to see that the watch is in


Fig. 57.


Fig. 58.
the right position. This perfectly natural gesture enables him to palm off $c$, and when he subsequently begins to grind away with the pestle, it is $a$ alone that is introduced. A slightly rotary motion causes $a$ to pick up $b$, and with it the borrowed watch. The grinding motion is continued for a moment or two. The performer lifts the pestle and gazes into the mortar; then, as if dissatisfied with his progress, says to his assistant, "This won't do, John; it would take a week at this rate. Bring me the kitchen poker." A poker is brought, the larger and heavier the better. "Ah, that is something like," says the performer, handing his assistant the pestle in exchange. "Now we shall get on faster." Accordingly, he pounds away vigorously with the handle
of the poker, finally showing the loose watch-works at the bottom of the mortar, and pouring them on to the paper bag, whereon the fragments of glass are already lying. These are now rolled up together, placed in the magic pistol and fired in any desired direction. The assistant meanwhile removes the watch from the pestle and disposes of it as may be required for the denouement of the trick.

A New Watch Trick.-The effect of this very startling experiment with a borrowed watch is as follows: After some gentleman has obliged the performer with


Fig. 59.
the loan of his gold chronometer, the latter carefully wraps it in a piece of tissue paper, and places the package in his outside breast pocket, leaving half the paper showing, which, it must be remembered, is never again approached by the hand until the conclusion of the
trick. The conjurer next borrows a gentleman's hat, which he gives to any voluntary assistant to hold above his head as high as possible, while he (the performer) stands some distance away and commands the watch to pass from the paper packet into the borrowed hat. The assistant then looks into the hat, and discovers to his great astonishment that the performer's command has been obeyed. Both the borrowed articles are then handed back, and the paper package undone and shown to be quite empty.

The main part of the secret consists in having a special tube attached to the interior of the outside pocket, which extends from the left breast of the coat to the right-hand coat-tail, passing round the performer's back, as indicated in the accompanying illustration, (Fig. 59.) When the watch is taken, it is carefully wrapped in a piece of tissue paper, which tears by means of finger pressure as it is placed in the pocket. Consequently, by the time the borrowed hat is taken off the table, and attention called to the fact that it would be an impossibility for the watch to leave the paper bag without the audience seeing it go, the chronometer has slid down the tube and out of the end in the right-hand coat-tail into the hat, rested there to receive it in such a manner as to effectually hide the watch as it passes into the hat. Now an assistant is told to hold the hat above his head, and he is also requested to listen to the borrowed watch ticking in the performer's breast pocket. He acknowledges that it is there, because he can both hear and feel it, although he is really listening to the conjurer's own watch, which has been previously placed into the top vest pocket, which will be found to match exactly the position that the borrowed watch would occupy in the outside pocket if it were really there. After the apparent impossibilities have all been set forth, and the effect worked up as brilliantly as possible, the climax is brought about as described above. This is really a very fine new trick, which has never been explained before, and I trust it will be appreciated accordingly. Of course, if it is de-
sired to work the experiment in a dress suit, the tube can be arranged to run from the inside breast pocket just as easily as from the outside pocket in a morning coat.

The Coin, Handkerchief, and Ring Trick.-The magician borrows a handkerchief, preferably a large silk one. This is spread out flat on the table and a borrowed coin placed on the handkerchief in the center. All four corners of the handkerchief are now gathered together, and a finger ring borrowed and slipped over the ends and pushed down, until it is close to the coin, as shown in Fig. 60. The handkerchief is now placed on the table again, as it was in the first instance, spread out flat, with the coin and ring, of course, underneath, as shown in Fig. 61. Two persons are now requested to place a finger of each hand on one corner of the hand-


Fig. 60.
kerchief, so that the four extremities are tightly pressed down on the table. Now another handkerchief is borrowed and laid over the one containing the coin and ring, but in such a manner as not to hide the corners of the first handkerchief, and still allowing the two persons to retain their pressure on the corners of the


Fig. 61.
underneath one. What the conjurer proposes to do is to remove both coin and ring from under the lower handkerchief while under the conditions imposed by having the corners held down. This, to all appearances, seems to be an impossibility, but within the space of a few seconds it is proved quite possible, when the conjurer is seen to remove first the coin and then the ring.

How is this accomplished? Well, I will tell you. It is done in a manner at once simple and bold. The two corners of the lower handkerchief nearest the performer are not spread out to their full extent, but the ends are allowed to be a few inches closer together than those on the opposite side. This unsuspicious and apparently
careless detail allows a little fulness in the handkerchief on the side nearest the performer, and under the cover of the uppermost handkerchief he gathers up that side into little plaits or tiny folds toward the center, and if sufficient fulness has been allowed this operation will occasion no strain or tugging on the corners held


Fig. 62.
by the audience. After plaiting right up to the ring the folds must be pushed down and out until there is an opening large enough to draw the coin through. Fig. 62 illustrates the aperture thus made. After the coin is removed the ring is released, but before showing it, it is always advisable to straighten out the folds of the handkerchief, so that there may be no clue as to how this mystery was accomplished.

The Watch Box.-This is an oblong mahogany box, size, four inches by three and two and a half deep. To the eye of the uninitiated it is a simple wooden box, with lock and key, and padded within at top and bottom. In reality, however, one of its sides is movable, working on a pivot. (See Figs. 63 and 64.) In its normal position the side in question is held fast by a catch
projecting from the corresponding edge of the bottom of the box. To release it, pressure in two places is re-quired-a pressure on the bottom of the box so as to lift the catch, and a simultaneous pressure on the upper part of the movable side of the box, thus forcing the lower part outward and allowing the watch or other article placed in the box to fall into the hand of the performer. For this purpose the box is held as shown in Fig. 63.


Fig. 63.
Fig. 64.
The manner of using the box is as follows: A borrowed watch is placed in it, the owner being requested, in order to insure its safe keeping, himself to lock it up and keep the key. The performer places the box on his table, in full view, but avails himself of the moment during which his back is turned to the audience to extract the watch, as shown in Fig. 63, and to again close the secret opening. Having thus gained possession of the watch, he can conclude the trick by causing it to re-appear in the snuff-box vase, or in any other way that he thinks proper.

There is an improved watch-box, the invention of the late M. Robert Houdin, which contains, concealed in the lid, a mechanical arrangement producing a ticking sound, which may be set in motion and again stopped at the pleasure of the performer. By using this box the watch may be heard apparently ticking inside until the very moment when it is commanded by the operator to pass to some other apparatus.

Verbeck's Wedding Ring Trick.-The effect of this very pretty trick is as follows:

The performer borrows a wedding ring, also a programme, and invites one of the company to assist him on the platform. He asks permission to mark the ring, which, being granted, he proceeds to mark it accordingly with a hammer. When the ring is battered out of all shape, he asks his volunteer assistant to place it on the borrowed programme, which he offers for that purpose. He holds it with the fingers below and thumb above, and secures the ring, when placed on the programme, with his thumb.

He then begins, using the one hand only, to crumple up the programme with the ring within it, at the same time announcing that he is about to convert the programme into four envelopes, in the innermost of which will be found the ring. Having finally crushed and crumpled it into a compact packet, he hands it to his volunteer assistant and makes believe to seal it (in four places) with a stick of sealing-wax (cold) and a few flourishes of the wand. The assistant is then asked to unfold the paper. On doing so, he finds that what he actually holds is a sealed envelope, made apparently out of the borrowed programme. This being opened, a smaller envelope, also sealed, is found, and within this another, 'and another. In the last is found the ring, restored.

The performer is about to hand it back to the owner, but first casually asks the gentleman who has assisted him if he saw "how it was done." The reply being in
the negative, he offers to show him, and repeats the process, using the ring just "restored,'" and a second programme. Again the programme is transformed into a set of four envelopes, one within the other, and in the innermost is found the ring, which is handed back to the owner and duly identified. The performer picks up the torn envelopes and crumples them in his hand. When they are reopened they are no longer envelopes, but an ordinary programme, as at first.

This trick depends, as the experienced reader will doubtless already have suspected, on a series of adroit substitutions. The preparations for the trick consist; apart from the sealing-wax and hammer, of two dummy rings and two sets of envelopes made of old programmes. One set is duly sealed and contains one of the dummy rings. It is then folded into a small packet and concealed about the person of the performer, who also has about him the second dummy ring, and a programme crumpled into a ball. The second set of envelopes is kept open behind the scenes, in readiness for use. The sealing-wax is placed on a table at cne side of the stage and the hammer on a table at the other side. Each of such tables is placed against the side-scene, in which there is a small opening just above the level of the table, enabling a concealed assistant to remove or place any small object on the table, a flower or vase thus screening the operation from the spectators.

These preliminary arrangements duly understood, the working of the trick will be intelligible enough, though it will be by no means such an easy matter for the aspirant to execute it with the neatness and finish that characterize M. Verbeck's performance. The genuine ring, which we will call $a$, when borrowed is at once exchanged for the substitute (which we will call $b$ ). The performer, having obtained leave to mark it, steps to the side table to pick up his hammer, and in so doing leaves $a$ on the table. This is forthwith secured by his assistant behind the scenes, who places it in the innermost of the second set of envelopes, seals them up, folds them
into a packet, goes round behind and places it in readiness on the table at the opposite side of the stage (whereon the stick of sealing-wax is already lying).

The performer meanwhile has doubled up ring $b$ with the hammer, or got his volunteer assistant to do so. Borrowing a programme, he holds it as already described, thumb above, fingers below, and asks him to place the battered ring upon it. Under this programme in the curve of the fingers lies the made-up packet of envelopes containing the second dummy ring, $c$. Crumpling the programme into a somewhat similar shape, and continuing the motion, he makes the two packets change places in the hand, and professedly giving his volunteer assistant the programme he has just rolled up, really gives him the packet of envelopes with c. Stepping to the second side table for the supposed purpose of picking up the sealing-wax, he gets rid of the packet in his hand, and picks up in its place and palms the packet with the real ring, $a$. The supposed sealing with the wax and the wand is mere make-believe, being only introduced in order to make a pretext for going to the table. The envelopes are in due course opened, and the ring, $c$, is found therein. The spectators at large believe that it is the borrowed ring, but the owner would, of course, speedily detect the substitution, hence the necessity for working the trick over again, which puts all straight. The dummy $c$ is now smashed up with the hammer, wrapped up as in the former case, and crumpled up, with a fresh programme in the hand of the performer. The substitution is made as before, but this time no journey to the side table is necessary, and the packet substituted is that containing the genuine ring, $a$, which is identified in due course.

While this last matter is in progress, and popular attention directed accordingly, the performer gets into his hand and palms his reserve crumpled programme. The envelopes are picked up, crushed in the hand, as before, the same substitution is made, and when the supposed envelopes are unfolded a programme (pre-
sumably the borrowed programme) is found to have taken their place.

The Wandering Ring.-A ring, shown in one hand, forthwith passes to the other.

The effect of this capital and little known trick is as follows. The performer borrows a ring and a couple of pocket handkerchiefs. He takes the ring between the fingers and thumb of the left hand, then closes the hand and asks some one to cover it completely over with one of the borrowed handkerchiefs. This is done, the handkerchief being secured round the wrist with a piece of string or ribbon. A second person is now asked to tie up the right hand in like manner. This done, the performer announces that the borrowed ring, just as seen in the left hand, will forthwith pass to the right, and


Fig. 65.
inquires on which finger of the latter the audience would wish it to appear. The choice having been made, the hands are uncovered. The left hand is empty, and on the chosen finger of the right is found the ring.

This surprising effect depends mainly upon an ingenious little piece of apparatus, resembling in principle the familiar self-coiling measuring tape. A piece of silk cord, some four feet six inches in length, is coiled on a drum within a cylindrical box or case (Fig. 65). The cord may at pleasure be drawn out to its full length and
so remains, until a little stud (on the side not visible in the diagram) is pressed, when it is drawn back again by the action of a watch-barrel within. On the free end of the cord is a little hook, as shown in the figure, and on one side of the box is a pin, after the fashion of a brooch-pin. The apparatus is attached by means of ihe pin to the right leg of the performer's trousers, masked by the coat-tail, and just level, in point of height, with the position of the right hand, as it falls by the side. It is so fixed that the opening through which the cord passes shall be turned to the left sde. The cord is now drawn out to its full length and passed behind the back of the performer, down the left sleeve, where the hook is secured by slipping it over the edge of the shirt cuff.

The performer is now ready to perform the trick. Advancing to the audience, he asks the loan of a gentleman's ring, the more distinctive in appearance the better. Having obtained it, he asks the further loan of two porket handkerchiefs, and while they are being furnished, or while making some remark about the peculiarities of the ring, he manages to slip the hook over the latter. Holding it between the first finger and thumb, the palm downward, he asks someone to cover the hand with the handkerchief and tie it securely around the wrist. The back of the hand being upward, the hook and cord are, of course, invisible to the spectators. As the palm downward, he asks somebody to cover the hand kerchief, he drops the right hand to his side and presses the little stud, simultaneously closing the left hand and releasing the ring, which flies up the sleeve. The spectators believe that it is still in the closed hand, which is forthwith tied up in the handkerchief. The performer affects great anxiety that this should be securely done. The general attention is naturally drawn to the operation, and meanwhile the ring is being drawn up the sleeve and behind the back of the performer (who can assist the pull, if need be, with his right hand) until it finally rests against the "pull" apparatus. The per-
former disengages it from the hook and secures it between the second and third fingers of the right hand. The process of tying the handkerchief gives ample time for this. So soon as it is finished he picks up the second handkerchief with the hand that holds the ring and says, "Now, sir, be kind enough to secure the other hand in the same manner." .He closes the hand and the handkerchief is tied over it.

The trick is now done. The inquiry as to which finger of the right hand the ring shall appear upon is a mere bit of "patter,'" for as the ring is already in his hand, and the hand is covered by the handkerchief, he has only to slip it over the finger selected.

As thus described, the trick seems, and irdeed is, simple enough, but I know of few that are more astonishing in effect. Even experts in conjuring, if not familiar with the modus operandi, will be found as much puzzled by it as the veriest outsider.

## CHAPTER X.

## TRICKS WITH HANDKERCHIFFS.

We have already discussed some tricks in which handkerchiefs are employed in one way or another. The present chapter will be devoted to those feats in which the handkerchief forms the sole or principal object of the illusion. Where practicable the handkerchief used should always be a borrowed one (so as to exclude the idea of preparation), and in borrowing it will occasionally be necessary to use a little tact in order to make certain of getting the right article for your purpose, without admitting, by asking specially for any particular kind of handkerchief, the limited extent of your powers. Thus, whenever the trick depends upon the substitution of a handkerchief of your own, it is necessary that the borrowed handkerchief should be of a plain white, so as not to have too marked an individuality, and of a small size, so as to be easily palmed or otherwise concealed. These desiderata you may secure, without disclosing that they are desiderata, by asking if a lady will oblige you with a handkerchief, ladies' handkerchiefs being invariably white and of small size. If a lace handkerchief (which would be inconveniently distinguishable from your substitute) is offered, you may pretend to fear the risk of injuring the lace, and on that account to prefer a less valuable article. In "knot" tricks, on the contrary, you should, if possible, use a silk handkerchief, which, from its softer nature, will be found more tractable than cambric

We will begin by describing a little "flourish" which may be incidentally introduced in the performance of more ambitious tricks, and which will sometimes be found useful in occupying the attention of the audience for a moment or two while some necessary arrangement
is being made behind the scenes for the purpose of the principal illusion.

The Handkerchief That Cannot Be. Tied in a Knot.-The performer, having borrowed a handkerchief, pulls it this way and that, as if to ascertain its fitness for the purpose of the trick. Finally twisting the handkerchief into a sort of loose rope, he throws the two ends one over the other, as in the ordinary mode of tying, and pulls smartly, but instead of a knot appearing, as would naturally be expected, in the middle of the handkerchief, it is pulled out quite straight. "This is a very curious handkerchief," he remarks; "I can't make a knot in it." The process is again and again repeated, but always with the same result.

The secret is as follows: The performer, before pulling the knot tight, slips his left thumb, as shown in Fig.


Fig. 66.
66, beneath such portion of the "tie" as is a continuation of the end held in the same hand. The necessary arrangement of the hands and handkerchief, though difficult to explain in writing, will be found quite clear upon a careful examination of the figure.

As the tricks which follow mainly depend upon the substitution of a second handkerchief, we shall in the first place describe two or three modes of effecting the necessary exchange, with and without the aid of apparatus.

To Exchange a Borrowed Handkerchief for a Sub-stitute.-Have the substitute handkerchief tucked under your waistcoat, at the left side, so as to be out of sight, but within easy reach of your hand. Receive the borrowed handkerchief in your right hand, and as you "left wheel" to your table to place it thereon, tuck it under your waistband on the right side, and at the same moment pull out with the other hand the substitute and throw the latter on the table. The substitute handkerchief (which the spectators take to be the real one) being thus left in full view, you may, without exciting any suspicion, retire with the genuine one and dispose of it as may be necessary for the purpose of your trick.
You may, however, sometimes desire merely to gain possession of a borrowed handkerchief, or to place it within reach of your assistant, without yourself leaving the apartment. In this case the substitute may be placed as before, but on your right side. Receiving the borrowed handkerchief in your right hand, you hold it. loosely hanging down between the second and third or third and fourth fingers. This leaves the thumb and first finger free, and with these you quickly pull down, as you turn to go to your table, the substitute. You thus have both handkerchiefs held openly in the same hand, but both being of like appearance, the spectators take them to be one only. Passing behind your table, you let fall the borrowed handkerchief upon the servante and throw the substitute upon the table.

A very audacious and generally successful mode of effecting the change is as follows: Taking the handkerchief and pressing it into a moderately small compass, the performer says, "Now, I am going to make this handkerchief disappear. There are plenty of ways
of doing it. I'll show you one or two. This is Professor De Jones' method. He just turns round, so, to put the handkerchief on the table" (performer turns acco. dingly), "but meanwhile the handkerchief is gone. Ah, you were too sharp for me! You saw me poke it up my sleeve? Quite right, here it is. I see Professor De Jones' method wouldn't have any chance with you. This is Professor De' Smith's method." He turns as before. "The handkerchief is gone again. Not far, though, for here it is" (turning back breast of coat and showing handkerchief). "Professor De Rcbinson does it like this." (He turns away for an instant, and tucks handkerchief under waistband.) "Here it is, you see, under the waistcoat." (Pulls it out again.) "Now, you may very well imagine that, if I had intended to have used any of these methods myself, I shouldn't have explained them. You will find that my plan is quite a different one. When I want to get rid of a handkerchief I just take it to the candle and set it on fire, so'" (holds handkerchief over candle and sets light to it) ; or, "I place it in such and such a piece of apparatus,' etc., etc.

On the first two occasions of showing where the handkerchief is placed the performer really does exhibit the genuine article, but at the third pretended feint, though he really does tuck it under his waist band, he pulls out again, not the same handkerchief, but a substitute, placed there beforehand. The action is so natural, and so much in harmony with his previous acts, that not one in a hundred will suspect that he has thereby really changed the handkerchief.

The mode of exchange last described, ingenious as it is, has one serious drawback, viz. : that it gives the audience a clue which it is better that it should not have, and suggests suspicions and conjectures which, but for such a clue, would never have been thought of. To an acute mind, even such a slight hint as this will suggest enough to destroy half the effect of any subsequent trick in which a similar process of disappearance or exchange
is employed, and even in the case of less intelligent spectators it will tend to diminish the prestige of the performer, by showing by what shallow artifices an illusion may be produced.

There are two or three pieces of apparatus for effecting the exchange of a handkerchief by mechanical means. A very good one is that known as "The Washerwoman's Bottle,' in conjunction with which we will take the opportunity of describing the very effective trick known as

The Locked and Corded Box.-" The Washerwoman's Bottle' is a simple and inexpensive piece of apparatus, of frequent use in handkerchief tricks. In appearance it is an ordinary black bottle, save that it has a rather shorter neck and wider mouth than the generality of such vessels. In reality it is made of tin, japanned black, and is divided into two compartments by a vertical partition, commencing just below the mouth. One of these compartments has a bottom, but the other has none, forming, in fact, a mere passage through the bottle. In the bottom is placed beforehand a piece of cambric, or dummy handkerchief, also about a glassful of port wine, or some other liquor of similar color.

The performer borrows a lady's handkerchief. Pretending that he is obliged to fetch some other article for the purpose of the trick, he says, as if struck by a sudden thought, "But I mustn't run away with the handkerchief, or you might fancy that I had tampered with it in some way. Where shall I put it? Ah! the very thing. Here's a bottle belonging to my washerwoman, which she left behind her the last time she came. It's sure to be clean, for she is a most particular old lady. We often hear of a lady carrying a bottle in her handkerchief, why not a handkerchief in a bottle? First, madam, please see that I have not exchanged the handkerchief. Right, is it? Well, then, here goes for the bottle." Standing behind his table, in full view of the spectators, he stuffs the borrowed handkerchief into the bottle, ramming it down with his wand. In so doing he grasps the bottle with his left hand around its base,
which he rests on the edge of the table nearest to himself, in such manner that about half the bottom projects over the edge. When he places the handkerchief in the bottle he places it in the open compartment, and pushes it with his wand right through the bottle into his Left hand if he desires to obtain personal possession of it, or lets it fall on the servante, if it is to be carried off. by his assistant. We will assume, for our present purpose, that he simply pushes it into his left hand, from which it is easy to get rid of by putting it into the pochette on the same side. He now places the bottle in the center of the table, but in doing so hears, or pretends to hear, a sound of liquid therein. "I supposed the bottle was empty," he remarks. "I never thought about that." He shakes the bottle, and the liquid therein is distinctly audible. "Good gracious!" he exclaims, "I'm afraid I have ruined the handkerchief." He now pours the liquid into a glass, and then, putting his fingers inside the bottle, he pulls out the prepared piece of cambric, which, of course, is wet and stained. Leaving it hanging from the neck of the bottle, he advances to the owner, and expresses his regret at the accident, but the spectators, who begin to suspect that the pretended mistake is really a part of the trick, insist that the handkerchief shall be restored in its original condition. The performer feigns embarrassment, but at last says, "Well, ladies and gentlemen, I cannot dispute the justice of your demands. The handkerchief certainly ought to be returned clean as at first, and as my washerwoman has been the cause of the mischief, she is the proper person to repair it. Will you excuse my stopping the entertainment for an hour or two, while I go to fetch her? You object to the delay? Well, then, I will bring her here by spiritualistic means, a la Mrs. Guppy. Pardon me one moment.' He retires and returns with a square box and the magic pistol. Placing the box on the table, and making a few mysterious passes over it with his wand, he says, in his deepest tones, "Spirit of Mrs. Tubbs, I command you to pass into this box, there to remain until you have repaired the damage which your carelessness has caused."

Then, taking the saturated cambric from the bottle, he crams it into the pistol, and, retiring to the farthest portion of the stage, fires at the box. Laying down the pistol and taking up the box, he advances to the owuer of the handkerchief, and, offering her the key, begs her io unlock it. She does so, expecting to find her handkerchief, but finds instead a second box. This and four or five others in succession are opened, and in the innermost is found the handkerchief, folded and ironed, as if newly returned from the wash.

With the reader's present knowledge, it would be almost superfluous to tell him that the operator avails himself of his momentary absence to dampen and fold the handkerchief, and to press it with a cold iron. (If a hot one can be obtained, so much the better, but there is no absolute necessity for it.) Having done this, he places it in the square nest of boxes and, closing them; returns to the audience. Where an assistant is employed the performer merely pushes the handkerchief through the bottle on to the servante, as already mentioned, and the assistant, passing behind the table on some pretext or other, carries it off and places it in the nest of boxes, while the spectators are occupied by the pretended discovery of wine in the bottle. The trick in this form appears even more surprising, inasmuch as the performer does not leave the stage at all, and the box is brought in and placed on the table by a person who, to all appearance, has never had the handkerchief, even for a moment, in his possession.

In order still further to heighten the effect of the trick, the handkerchief is sometimes caused to re-appear in the innermost of a nest of boxes which has throughout the entertainment been hung up in full view of the audience, and the outermost of which is carefully corded and sealed. The performer in this case, after firing at the supposed box (for the spectators are, of course, ignorant that there are more than one), directs his assistant to take it down from its elevated position and to place it on the table. Cutting the cords and opening
the box, he produces another smaller box, of an ornamental character (the square nest of boxes above mentioned). This he hands to the owner of the handkerchief, with a request that she will open it, and the result is as already described.

The trick in this form is one of the very best exhibited on the stage, and yet, as indeed are most of the best feats, it is performed by the simplest possible means. The outer box is an ordinary deal box, bona fide sealed and corded, but the second, though equally genuine in appearance, has no bottom, and the cord, though apparently quite complete, does not cross beneath the box, which is, in fact, nothing more than a wooden shell or cover, with a lid to it. When the performer takes out this second box and places it on the table he tilts it forward for a moment, and in that moment slips the nest of boxes (which is placed in readiness on the servante underneath it, immediately afterward raising the lid and taking out the nest, as if it had all along been contained therein.

It only remains to explain the mode by which the nest of boxes, with the handkerchief therein, is placed upon the servante. Some performers employ the rather too transparent expedient of making the assistant bring in, then and there, a small round table, behind which, on a servante of its own, is placed the closed nest of boxes. A better plan, where the size of the nest permits, is to have it placed open, before the performance commences, on the servante oir the center table. It is then an easy matter for the performer or his assistant (as the case may be) to slip in the folded handkerchief and close the boxes, the remainder of the trick proceeding as already described.

Some performers use for the purpose of this trick a special mechanical table, which, by means of a lifting apparatus, itself introduces the nest of boxes through a trap into the bottomless box, without the necessity of tilting the latter.

The Burning Globe.-This is a hollow brass globe of four or six inches in diameter, mounted on a foot of about the same height, and surmounted by a cap or lid, so that it forms, in fact, a spherical canister. A raised band, also of brass, passes horizontally around the globe, and this, which is apparently a mere ornament, is really designed to conceal the fact that the globe is divided into two separate hemispheres, revolving one upon the other. Within this external globe is an inner one, divided into two compartments, each having a separate opening, and so contrived that each of these openings in turn is made to correspond with the opening of the external globe, as the upper hemisphere of the latter is moved round from right to left, or vice versa. The globe is, like the canister, prepared by placing a substitute handkerchief or piece of cambric in one or the other of the inner compartments, and then bringing the other c:ompartment into corresponding position with the external opening. A borrowed handkerchief being openly placed in the empty compartment, the performer, by merely giving a half turn to the foot of the apparatus, brings the compartment containing the substitute uppermost, the action being so little noticeable that it may be used with impunity before the very eyes of the audience.

One of the most perfect methods for causing a handkerchief to vanish is by means of the apparatus known as the "Bautier pull," after the ingenious performer to whom the profession is indebted for its invention. In consists of a cylindrical tin cup (Fig. 67), 1 to $11 / 4$ inches in diameter and $21 / 2$ to 3 in length, tapering at the closed end, and attached by such closed end to a silk cord, which passes up, say, the left sleeve, behind the back, and down the opposite sleeve of the performer, where it is made fast to the right wrist. The length of the cord


Fig. 67.
is so adjusted that when the arms hang down at full length by the sides of the body the tin cup lies about half way up the left forearm, though by bending the arms and so slackening the cord, it may be brought into the hand at pleasure. When it is desired to use the Buatier "fake" to cause the disappearance of a handkerchief, the cup is brought into the hand and palmed, the performer standing (in the case supposed of the cup being in the left sleeve) with his left side toward the audience. Taking the handkerchief, he begins apparently to rub it between his hands, gradually working it, by means of the second finger of the more remote hand, into the cup, calling attention the while to its gradual disappearance. When the whole of the handkerchief is safely stowed within the cup, he gives a forward lunge with both arms, and at the same time relaxes his hold on the cup. The extension 'pulls'" the cord, and the cup is drawn up the sleeve, enabling the performer to show both hands completely empty.

The cup may be placed within either the right or left sleeve, as may best suit the personal idiosyncrasies of the performer, and may vary in shape or size, according to the object for which it is intended to be used. It is employed by its accomplished inventor (among other purposes) to cause the disappearance of a canary bird.

It is a curious fact, and illustrates the proverbial irony of fate, that one of the latest and most artistic of conjuring devices should be a practical realization of the "up his sleeve" theory, which has in all ages been accepted by the vulgar as the explanation of the great bulk of magical disappearances, though in ninety-nine cases out of a hundred the sleeve had absolutely nothing to do with the matter. Thus "the whirligig of Time brings in his revenges." The innocent sleeve, unjustly credited with a thousand uncommitted sins, has at length turned upon its maligners, and no doubt laughs in itself to think how neatly it outwits them.

Here, however, readers who have seen M. Bautier's
performances may interpose an objection. "But surely,' such a reader may exclaim, "I have seen Buatier cause a handkerchief to vanish with his arms bared to the elbows. What becomes of the sleeve theory in that case?'' Ingenious reader, there are many roads that lead to Rome, and more ways of killing a dog than sus. per coll. The aim of every true conjurer is to be able to produce the same trick by several different methods, so that, if foiled or suspected in the use of one of them, he may be able to fall back upon another.

To produce the "bare-armed" feat, the tin cup is again called into requisition, but in a different way. The cord is in this case a piece of stout elastic, and passes through a small ring sewed to, say, the left armhole of the performer's vest. Thence it passes behind his back (within the vest) and round his waist on the opposite side, being finally looped over the central button of the waistband of his trousers. The length is so arranged that the cup shall be drawn close up to the armhole, with a fairly strong amount of tension, though it can be drawn out at pleasure to a distance of some eighteen or twenty inches from the body. The use of so long a piece of elastic (some three feet) is expressly designed to allow of free extension in this manner.

When the performer desires to use the apparatus he takes an opportunity, in turning to his table, or the like, to get the cup into his hand. This done, the rest is easy. The handkerchief is worked into the cup, as described in the case of the "sleeve fake." When it is fairly home the performer makes a forward and backward movement of the hands, and simultaneously with the latter relaxes his hold of the cup, which forthwith flies under the lappel of the coat and up to the armhole, where it rests effectually concealed.

The exact shape of the apparatus is a matter of taste. Its original shape was that of a tube, open at one end, as described for the sleeve, but it is also made pearshaped, with the opening (oval) at one side. The latter is, I think, in this case, the preferable pattern.

In order to facilitate the getting of the cup into the hand, I have found the following a useful plan: Firmly sewed to the bottom of the vest, at the point where the cotton backing joins the cloth, I have a lady's black dress hook, fixed point downward, and slightly sloping toward the center of the body. The cup is beforehand drawn down to this point and the elastic slipped under the hook. The cup is thus held perfectly secure and in a very accessible position, while the mere downward pressure of the hand, in the act of palming it, instantly releases it from the hook.

There is yet another bare-armed "vanish" for which conjurers are mainly indebted to the fertile brain of Bautier de Kolta. It is a little pasteboard box in the shape of the heel of a boot, with the straight side open, its greatest diameter being two inches, and its depth from back to front seven-eighths of an inch only. See Fig. 68. A dab of soft wax of good adhesive quality is placed on each of the flat sides of the box.


To illustrate the capabilities of this apparatus, I cannot do better than describe one of M. Bautier's most popular sleight-of-hand feats, which we may entitle:

The Dissolving Handkerchiefs.-The performer exhibits two handkerchiefs of very soft silk, one red, one blue, and in size about fourteen inches square. Having shown that they are free from any special preparation, he throws them side by side over the back of a chair, and next calls attention to an ordinary soup plate, which he ultimately lays mouth downward on a table, first spreading a newspaper beneath it to exclude the idea of any assistance from below. In the act of turning down the
plate he secretly introduces beneath it a conple of duplicate handkerchiefs, rolled up in a very small compass, which were beforehand placed in readiness under his waistband. He announces that he proposes to transfer to beneath the inverted plate the two handkerchiefs he has already shown, and asks whether he shall do so "visibly" or "invisibly." Whatever the reply, the procedure is the same. Turning up his sleeve to the elbow, and incidentally showing that his hands are empty, he takes one of the handkerchiefs from the back of the chair, and with it the little cardboard box, which, unknown to the audience, is stuck by means of the wax to the upper edge of the chair back, the depth of the woodwork (three to four inches) effectually screening it from observation.

Standing with his right side to the audience, and holding box and handkerchief between his palms, he begins to work the handkerchief into the box, calling attention to its gradual disappearance. So soon as it is fairly in he thrusts two fingers of the hand nearest the audience into the mouth of the box, and with their aid transfers it to the back of the opposite hand, to which a good squeeze compels it to adhere. Showing, with a careless gesture, that the handkerchief has completely disappeared, and that there is nothing in either hand, he steps up to the chair, and with the right hand takes the second handkerchief and throws it over the other hand. This makes all safe, for the handkerchief just picked up falls over and conceals the hand-box. He rubs this second handkerchief between his hands, and under cover of doing so again gets the box between the palms and works the handkerchief into it. He does not this time pass the box to the back of the left hand, but simply palms it in the right. From the position in which he stands the spectators can only see the back of his hand, but the hands having been shown (so far as the palms are concerned) unmistakably empty on the first occasion, it never strikes anyone that they may now be otherwise, or that the omission to show the inside of both hands is intentional. The performer does not allow them too much
time to think over the matter, but at once turns up the soup plate and shows the duplicate handkerchiefs. These when picked up again serve to mask the presence of the hidden box in the right hand until it can be conveniently disposed of.

The above description will enable the reader to comprehend the modus operandi of the trick, but conveys only a faint idea of the illusive effect, the 'impression on the mind of the ordinary spectator being that he sees the handkerchiefs visible dematerialize themselves between the hands of the performer. Their re-appearance under the plate is a less striking phenomenon, but, assumed that the handkerchief just shown has really melted into thin air, it is taken for granted by the uninitiated on the post hoc, propter hoc principle, that those subsequently produced from the plate must be the same.

The same feat is sometimes performed with the aid of a mechanical plate. The plate has in this case a false bottom of tin or pasteboard, japanned on the one side to match the pattern of the plate, and covered on the other with newspaper. The dummy handkerchiefs are in this case laid beforehand in the plate, with the false bottom on the top of them. When the plate is inverted on the table the false bottom falls out and releases the handkerchiefs, and the appearance of the false bottom's reverse side corresponding with that of the piece of newspaper already lying on the table renders it practically invisible. To an expert palmer, however, the use of such an appliance is a needless complication.

Red, White and Blue.-This is an illusion of French origin. The performer shows a little handkerchief of white silk, waves it between his hands, and it presently becomes two, one white, one red. Again he waves these about, and in due time the two become three, a blue handkerchief making its appearance and completing the tricolor.

The apparatus used is a modification of Fig. 67. It consists of a japanned tin tube three inches in length by one and a quarter in diameter, open at each end,
and pivoted on its center between the arms of a metal fork, as shown in Fig. 69, so that either end of the tube may be brought outermost at pleasure. In the one end is packed a red silk handkerchief, and in the other a blue one. Thus arranged it is attached to a "pull," and


Fig. 69.
lies in the left sleeve of the performer, after the manner shown in describing the "Bautier Pull."

While calling attention to the white handkerchief in the right hand, the performer gets down the apparatus into the left, then brings the two hands together, and, waving the visible handkerchief up and down to cover his manipulations, draws the red handkerchief between the hands and allows the apparatus to recede into the sleeve again. Continuing the movement, he gradually brings the red handkerchief into view, and finally exhibits the two, side by side, in the right hand. While the general attention is still engrossed by the unexpected appearance of the red handkerchief, he again gets the apparatus into the left hand, and in bringing the hands together causes the tube to revolve on the pivot, bringing the opposite end outermost. He now begins the production of the blue handkerchief, working it gradually out between the two already in the hand, with very pretty effect. As soon as it is fairly clear, a forward thrust of the arms again causes the apparatus to recede up the sleeve, the three handkerchiefs hang side by side in the hani. , and the tricolor is formed.

A further and very telling effect may be produced by having in readiness under the vest, neatly rolled up,
a small silk flag of the same colors. The third handkerchief having been produced in due course, the flag is palmed. The thrce handkerchiefs are rolled up and rubbed between the hands, the change is made, and the flag unfolded in their place, its development giving ample opportunity to get rid of the handkerchiefs, under the vest or otherwise.

Tife Balanced Handkerchief.-This trick is so simple that the veriest amateur will be able to perform it quite easily, while it is effective enough to be presented upon any stage.

A large cambric handkerchief is borrowed and rolled ropewise; then one end is rested upon the top of the finger and balanced. That is the effect, and this is the secret of the performance.

First obtain a piece of whalebone, or failing that a piece of stout wire about 20 inches long. To the end of this fix a fish hook, and then push this piece of apparatus up the left sleeve. Take the borrowed handkerchief by the corners diagonally, and twist it round in the form of a rope; then attempt to balance it upon the first finger of the left hand. This first attempt will of course be unsuccessful and the handkerchief will drop down to the position indicated in Fig. 70.

Now take the top corner of the handkerchief between the thumb and first finger of the right hand, and hook it to the top of the piece of whalebone protruding from the top of your sleeve; drag this through your left hand so that the handkerchief hides the apparatus as shown in Fig. 71.

Directly the whole length of the support has been pulled out of the sleeve, the handkerchief must be again twisted into a rope, which readily forms round the whalebone.

In this condition, if the handkerchief is placed upon your finger-tip, it will be found quite easily to balance, as shown in Fig. 72. The corner fixed to the hook must be at the top, thereby preventing the handkerchief from slipping down.


Fig. 71.


Fig 72.

The handkerchief can be balanced upon your nose equally well, and in fact a variety of suggestions will occur to the performer now that he knows the secret of stiffening the square of cambric.

Even when the whalebone is in position and everything ready to perform the trick, it is always advisable to make one or two attempts before allowing the handkerchief to stand upright.

An additional effect may be obtained by passing your wand round the sides and top, so as to prove the absence of any strings or wires.

Multiplication of Handkerchief. (A silk handkerchief made into two or more.)

Silk handkerchiefs, particularly if thin and of small size, lend themselves with peculiar facility to the arts of the conjurer, their soft texture admitting of their being packed into almost incredibly small dimensions. It is an easy matter for an expert performer to turn one into two, or two into three, by the simple expedient of having the supplementary handkerchiefs palmed beforehand. The performer cannot, however, in this case show his hands empty, and the omission to do so naturally deprives the trick of much of its magical effect. To enable him to show the hands up to the last moment sundry mechanical aids have been devised. One of these takes the shape of a little bottle, say three inches high by one and a half in diameter, of colored glass, and professedly designed to contain some mysterious essence. As a matter of fact, it really contains about a thimbleful of eau de Cologne, its liquid-holding capacity terminating at a false bottom half an inch or so below the neck. From this point downward the space is clear, the bottle forming, in fact, a mere tube or cylindrical case open at bottom. Within this is inserted a silk handkerchief, a duplicate in color and size of the one intended to be multiplied.

When about to exhibit the trick the performer calls attention to the little silk handkerchief he holds, allowing it to be freely handled and seen to be one only. This
done, he throws it over the open left hand. Continuing his talk, he takes in the opposite hand the little bottle, which he states to contain a volatile essence, having the extraordinary property of doubling any article to which it is applied. To illustrate his assertion he removes the cork or stopper, for greater convenience transferring the bottle for a moment to the hand that holds the handkerchief. Laying the cork on the table, he again takes the bottle in the right hand, and at once proceeds to pour some of the perfume on the handkerchief. Meanwhile, however, during the momentary sojourn of the bottle in the left hand, the thumb and second finger of that hand (through the visible handkerchief) nip the duplicate concealed within, and the act of taking the bottle in the other hand draws out this duplicate, and leaves it in the hollow of the hand which holds the visible handkerchief. A few drops of the perfume having been poured thereon, the performer replaces the bottle on the table, brings the hands together, and begins to rub the handkerchiefs, showing, after a proper interval, that the one first seen has now become two.

The precise shape and kind of bottle used is a matter of taste. I have seen a very good one manufactured from an ordinary eau de Cologne bottle. The bottom was, in this case, left undisturbed, the necessary opening being made by cutting out one of the flat sides. The paper label, extending nearly round the remaining sides, masked the presence of the concealed handkerchief, while a piece of glass, cemented in a little below the neck, gave the bottle the necessary fluid-holding capacity.

New Handkerchief Sleights.-The fascination of the back palming craze having become so great among prestidigitators of the present day, who try to make everything vanish by this extremely popular sleight, will probably cause magicians to welcome an arrangement by which they can back palm ordinary silk handkerchiefs
without having recourse to the use of a spider or any similar piece of mechanism.

One method by which a handkerchief may be rendered reverse palmable (if I may use that expression) is to hold it by the center, allowing the ends to hang downward. It must then be rolled into as tight a ball as possible, rolling in the corners first. The center will, of course, make a slight projection, but the handkerchief must be palmed in the ordinary manner, with the projection next to the palm. Now to reverse, or show the palm to the audience without exposing the handkerchief, close the two middle fingers over the palmed handkerchief, and roll it to the base of the fingers; then grip the upper and lower portions of the ball between the first and fourth fingers, and bring it over the two middle ones, which are bent, and then straighten out, leaving the handkerchief firmly held upon the back of the hand.

To show the back the movements must be reversed, but should the silk be inclined to expand, a small rubber band may be found useful, if it is attached to the center of the handkerchief and passed over the roll in order to hold it secure.

By far an easier and more effective method of executing the above sleight, and one which I have been using for some considerable time with good results, is worked in the following manner.

Roll a silk handkerchief up into a moderately tight ball, leaving only one end loose, which must be fastened down with adhesive paper or court plaster, preferably of a color matching the silk, at about half an inch from the end, as illustrated in Fig. 73. This should be palmed in the left hand, and while the right is being shown empty, the left must approach to point out that there is really nothing on the back or front. During this business the left hand passes behind the right and leaves the handkerchief there, gripped by the projecting corner between the second and third fingers, as shown in Fig. 74.

When in this position the handkerchief can be produced in many different ways, probably the most ef-
fective being to strain the fingers sufficiently to break the strip of adhesive paper, and then, if the hand is jerked forward, the handkerchief will be rapidly thrown out, appearing as though just caught from the air at the tips of the fingers.


Fig. 73.


Fig. 74.


Fig. 75.
Should a big show be desired, a large number of handkerchiefs can be caught in the same manner, being first
secretly secured in the left hand, and then loaded on to the back of the right, in the act of removing the handkerchief just caught. (See Fig. 75.)

New Handkerchief and Egg Trick.-After showing both hands empty, the performer picks up a silk handkerchief, and, holding it by one hand only, shakes it, when suddenly the handkerchief is seen to change into a genuine unprepared egg, which is at once passed for inspection. The entire preparation necessary for the trick consists of a proper adjustment of a thread "pull" worn by the performer. As this same thread pull is much used by European conjurers instead of metal and spring pulls, a detailed description of the arrangement will, I hope, prove acceptable to my readers.

At one end of a thin but strong black thread the performer makes a sliding loop, which he hooks over both buttons of the right cuff. The thread is then led from here up the right sleeve, over the back of the vest, then to and through the opening of the left suspender, and from there to the right trouser button, to which it is fastened. The length of the thread is so adjusted that the right arm can move freely; in fact, there ought to be some slack in that portion of the thread between the left and right trouser buttons.

To perform the above-named teick the conjurer has placed a genuine egg on a very small wire servante of an elliptical shape, the servante being fastened to the back of a chair or cigar box. After exhibiting the handkerchief he places it for a moment over the back of a chair or cigar box, to show that he has nothing else concealed in his hands, he then seizes the handkerchief and picks up the egg at the same time. He next secretly detaches the loop from his right cuff buttons and places it over the center of the handkerchief under which the egg lies concealed. With the left hand he obtains possession of the slack portion of the thread and gives a quick, sharp pull, by which process the handkerchief is instantly drawn up the sleeve, the egg, which remains in the hand, thereby becoming exposed to view.

With a little practice this instantaneous and pretty change will be found a very effective one. This "pull" may also be used to advantage for causing a glove or flag to vanish.

The Egg and Handrerchief Shot.-The effect of this trick, which, I believe, was the invention of the late D'Alvini, who was very successful in performing it, is as follows: Upon some pretext the performer places a borrowed handkerchief on a plate, and then, producing an egg, is unfortunate enough to drop it on the plate, causing the egg to break, thereby soiling the spectator's handkerchief.
After the usual pretense of embarrassment, the performer proceeds to load the soiled handkerchief and debris of the egg into the funnel of his magical pistol, giving the latter to his assistant to hold. He then retreats to the opposite side of the stage and signals to his assistant, who, leveling the pistol at him, discharges it. The conjurer then proceeds to pull out of his mouth the perfectly dry handkerchief, which, a moment later, is followed by the egg, which is also freely shown.

Of course, my readers have conjectured by this time that the soiled and the borrowed handkerchiefs are two different ones, the latter being safely tucked away under the vest of the performer, who, while he retires for an instant to get his pistol, quickly inserts the vested handkerchief in a hollow imitation egg, which has an opening at the tip; this egg is then placed in the pochette.

Entering again, he drops the soiled handkerchief and broken egg into the pistol funnel, securing it in the latter by closing a door fixed on the inside of the funnel.

While retreating to the opposite side of the stage, the performer obtains possession of the palmed egg and secretly puts it in his mouth. Signaling to the assistant to fire, he proceeds to first pull out the handkerchief from the egg, retaining the latter in his mouth by holding the lips partly closed. The egg is then produced
and freely exhibited, the thumb being held over the opening.

These eggs, made either in celluloid or wood can be obtained from any dealer in magical apparatus.

Handkerchief Production with the Aid of a False Finger.-The extra, or hollow, finger, as it is sometimes called, is undisputably one of the most original ideas of modern conjuring. The finger is hollow and usually made of metal. It is painted flesh color to resemble as much as possible the fingers of the performer's hand. Previous to the trick a handkerchief made of very fine silk (obtainable at the magical repositories) is inserted into the finger, the blunt end of a lead pencil being generally used to facilitate the operation. The "finger" is then placed between the first and second fingers of the right hand, occupying the position shown in Fig. 76. Thus prepared, the performer can turn back his sleeves and boldly show his hands empty, it being a curious fact that the presence of the addi-


Fig. 76.
tional finger is never noticed. In the act of placing his hands together, the performer manages to take off the finger, getting it between the palms. Moving the hands slowly up and down, he gradually causes the handkerchief to make its appearance by slowly working it out of the finger with the fingers of the hand that is farthest from the spectators. When the entire handkerchief has been produced it is laid across the hand containing the extra finger, wheh is carried away and laid down with the handkerchief. It is not necessary that the performer should enter with the finger already in possition, as it may at any stage of the performance be obtained from the pochette or servante.

The Spirit Handkerchief.-The performer borrows a white silk handkerchief from some obliging male spectator, and after making a large knot in one of its corners drops the handkerchief on the floor. After requesting the pianist to furnish him with some music of the gentle, trickling kind, he commands the handkerchief to assume an erect position, which it immediately does. Passing his hands continually above and around all sides of the handkerchief, the performer causes it to go through a series of very mystifying movements, the handkerchief rising, lying down, dancing and gliding back and forth at his word of command. For a finish the borrowed handkerchief jumps into the hand of the performer, who immediately returns it to its owner, who, after carefully examining it, fails to find anything indicative of preparation about it.

The conjurer's friend, the black silk thread, is at the bottom of this very charming and pleasing feat. The thread is stretched horizontally across the stage, its ends being held by assistants standing in the wings. Before the trick and during the borrowing of the handkerchief the thread is allowed to lie loosely on the floor, from where it is raised to a level with the performer's hand, immediately after he has returned to the stage and stepped over it. Secretly seizing the thread, he man-
ages to make a knot in the handkerchief around it, and then drops it to the floor, as described.

The rest of the explanation is simple enough: the concealed assistants work the thread and thus cause the handkerchief to rise, lie down, dance and glide back and forth according to the will of the performer, who, standing sideways to the audience, allows the thread to pass between his legs, thus being at liberty to walk backward and forward without interfering with the working of the thread.

The detaching of the thread previous to the return. of the handkerchief still remains to be explained. This is accomplished by the performer seizing the knot of the handkerchief after the latter, by the clever manipulation on the part of the concealed assistants, has jumped into his hand; one assistant releases his end of the thread, while the other rapidly gathers his in, pulling the thread out through the knot, and leaving the handkerchief ready to be returned and duly inspected.

The Handkerchief Which Changes Color.-The performer turns back his sleeves, and, showing a green silk handkerchief, takes it between his hands, waving the latter up and down. The green handkerchief is seen to grow smaller and smaller, disappearing gradually from the top of the hands and coming out at the bottom changed into a red handkerchief, which is freely shown, the hands also being shown empty.

There are many ways for accomplishing the above result, but the following is perhaps the best: To the corner of the green handkerchief is sewed a strip of silk the same color, this strip being about two and a half inches long and one and a half inches wide. By sewing sides A B to the handkerchief, a tube is formed, to the center of the inside of which is sewed a small silk bag. In the hem of the opening $C D$ is sewed a ring of fine, soft wire. (See Fig. 77.)

The handkerchief is made ready for the trick by placing it by means of the opening $D$ into the bag, the small bundle thus obtained being vested. A red hand-
kerchief is now shown to the spectators and the vested bundle is secretly obtained. The hands are placed together, the parcel being between the palms, and under cover of waving them up and down the red handkerchief is inserted into opening C of the tube, which action forces the other handkerchief out of D. When the red handkerchief is home, the little bag preventing it from going too far, the other handkerchief must necessarily be out of its former place, and all the performer has to do now is to squeeze the wire


Fig. 77.
ring in the opening CD flat, thereby closing either end of the tube. The green handkerchief is now exhibited from both sides, the tube being masked by the fingers. This precaution is hardly necessary, as at a little distance the tube cannot be discerned.

I have used this same plan for changing three silk handkerchiefs-a red one, a white one, and a blue oneinto a large silk American flag. The tube in this case was sewed on the stripes of the flag, being the width of two stripes, and was for this purpose made out of red and white silk.

## CHAPTER XI.

## THE CUPS AND BALLS.

The subject of the present chapter may be said to be the groundwork of all legerdemain, being, we believe, the very earliest form in which sleight-of-hand was exhibited. At the present day it is not very often seen, save in the bastard form known as "thimble-rig," and used as a means of fleecing the unwary upon race-courses and at country fairs. It is, however, well worth the attention of the student of modern magic, not only as affording an excellent course of training in digital dexterity, but as being, in the hands of an adept, most striking in effect. It is by no means uncommon to see spectators who have witnessed more elaborate feats with comparative indifference become interested and even enthusiastic over a brilliant manipulation of the cups and balls.

The prestige of the illusion is heightened by the simplicity of the appliances used, consisting merely of three tin cups about three inches high, each in the form of a truncated cone, with a rim or shoulder around the base (see Fig. 78), the ordinary wand, four little cork balls, three-quarters of an inch or a little less in diameter, and blackened in the flame of a candle, three larger balls of about an inch and a quarter in diameter, and four more of such a size as to just fill the cup. These last are generally stuffed with hair and covered with cloth. The number of balls may vary according to the particular "passes" which the performer desires to exhibit, but the above will be found sufficient for most purposes. The performers of the olden time were accustomed to use the gibeciere, or apron with pockets, and to perform at a table having no specialty save that it is a
little higher than those in ordinary use, but at the present day the gibeciere is entirely discarded, the servante of the table answering the same purpose. The arrangement of the table and apparatus is shown in Fig. 79.


Fig. 78.
The whole art of cup-and-ball conjuring resolves itself into two elements - (1) the exhibition of a ball under a cup where a moment previously there was nothing, and (2.) the disappearance of a ball from beneath a cup under which the spectators believe they have just seen it placed. The process is as follows: A cup is lifted to show that there is nothing beneath it, and again replaced, mouth downward, on the table. A ball is taken in the right hand, transferred to the left, and thence ordered to pass under the cup. The hand is opened, the ball has vanished, and on the cup being lifted the ball is found beneath it. Again, the ball, first exnibited in the right hand, is thence openly transferred, either directly under the cup, or first to the left hand, and thence to the cup. All having seen it placed beneath the cup, it is now commanded to depart, and on again lifting the cup it is found to have vanished. It will hardly be believed, until proved by experiment, of what numerous and surprising combinations these simple elements are capable.

The sleight-of-hand requisite for the cups and balls is technically divisible into four different acts or movements, viz.: (1) To "palm" the ball; (2) to reproduce the palmed ball at the end of the fingers; (3) to secretly


Fig. 79.
introduce the palmed ball under the cup; (4) to simulate the action of placing the ball under the cup. The methods of accomplishing these sleights will be elucidated in due order.

1. To Palm the Ball. First Method.-We use the generic term "palm'" for the sake of convenience, though in this first method, which is that most generally used, the ball is really concealed between the second and third fingers, and not in the palm. Take the ball between the first finger and thumb of the right hand; slightly bend the fingers (see Fig. 80), and at the same moment roll the ball with the thumb across the first and second fingers till it rests between the second and third fingers (see Fig 81), which should slightly separate to receive it, again closing as soon as it is safely lodged. The ball will now be as shown in Fig. 82, and it will be found that the hand can be opened or closed with perfect freedom, and, indeed, be used in any manner, without being in the least hampered by its presence. The student should practice palming the ball in this manner both in the act of (apparently) transferring the ball to


Fig. 81.


Fig. 82.
the left hand, and in that of (apparently) placing it under a cup lifted by the left hand for that purpose.

Second Method.-The second method is to actually "palm" the ball, in the same manner as a coin. For this purpose the ball is, as before, taken between the first finger and thumb of the right hand, but is thence made by the thumb to roll between the tips of the third and fourth fingers, which immediately close into the palm, and, again opening, leave the ball behind them. With a little practice two balls in succession may be palmed in this way, and then a third by the first method.

Third Method.-The third method is that which was adopted by the celebrated Bosco, a most accomplished performer with the cup and balls. Being accustomed to use balls of a larger size than those above described, and therefore too bulky to palm by the first method, he used
to hold them by means of a slight contraction of the little finger. (See Fig. 83.) The necessary movement of the fingers to place the ball in position is nearly the same as by the first method.


Fig. 83.


Fig. 84.
2. To Repronuce the Palmed Ball at the End of the Fingers. - The mañer of doing this will vary according to the method by which the ball is palmed. If according to the first or third method, the ball is simply rolled back to the finger tips with the ball of the thumb, exactly reversing the process hy which it was palmed. But if the ball was palmed by the second method, it cannot, for the time being; be manipulated by the ball of the thumb. In this case the first step is to close the third and fourth fingers upon the ball (see Fig. 84), and therewith roll it to the position shown in Fig. 83, when the thumb is enabled to reach it, and to roll it to the finger tips in the manner just described.
3. To Secretly Introduce the Palmed Ball Under the Cup.-This is always done in the act of raising the cup (with the right hand), for the ostensible purpose
of showing that there is nothing underneath it. The chief thing to be attended in is raising the cup is the position of the right hand in which we are supposing a ball to be palmed by any one of the methods above mentioned. This should be done with the hand spread almost flat upon the table, and, grasping the cup as low down as possible, between the thumb and the lowest joint of the forefinger. In the act of raising the cup the fingers naturally assume the position shown in Fig. 85, whereby the ball is brought in close proximity to, and slightly under, the edge of the cup. If the ball be


Fig. 85.
palmed by the first method, all that is necessary in order to release it is a slight backward movement of the second finger and a forward movement of the third, made just before the cup again touches the table. This will be found to drop the ball immediately under the cup. If the ball be palmed by the third method, its introduction under the cup is a still easier matter, as by the act of raising the cup it is brought directly underneath it and is released by the mere act of straightening the third and fourth fingers. If the ball is palmed by the second method, it becomes necessary, before taking hold of the cup, to close the third and fourth fingers slightly (see Fig. 84), and bring the ball to the position shown in Fig. 83. From this point the operation is the same as if the ball had been originally palmed by the third method.
It is sometimes necessary to introduce a ball between two cups. It will be remembered that each cup is made
with a cylindrical rim or shoulder. The purpose of this shoulder is that, when two cups are placed one upon the other (see Fig. 86), there may be a space between them sufficient to receive a ball or balls. To further facilitate the introduction of the ball, the top of each cup is made, not flat, but concave. When it is desired to introduce a ball between two cups, that object is effected as follows: Having the ball ready palmed in the right hand, the performer takes up a cup in the same


Fig. 86.
hand, and with it covers the second cup, at the same moment introducing the ball beneath it in the ordinary manner, but with the addition of a little upward jerk, rather difficult to describe, but easily acquired with a little practice. The ball is thereby thrown to the top of the uppermost cup, and, in falling, is received by the concave top of the lowermost cup.
4. To Simulate the Action of Placing a Ball Under a Cup.-This may be done in two ways. The first is to raise the cup with the left hand, apparently placing the ball underneath it with the right, but really palming it. Care must be taken that the edge of the cup shall touch the table at the very moment that the fingers of the right hand are removed. The second and more common method is to apparently transfer the ball to the left hand, palming it in the transit, and then hringing the closed left hand close to the cup on the table, raise the cup with the other hand, and immediately replace it with a sort of scraping movement across the fingers of the now opening left hand.

When the student has thoroughly mastered the various operations above described, he will have little to learn save the combination of the various passes, a matter of memory only. There are, however, one or two subordinate sleights with which he should make himself acquainted before proceeding publicly to exhibit his dexterity.

To Produce a Ball from the Wand.-The wand is supposed to be the reservoir whence the magician produces his store of balls, and into which they vanish when no longer needed. The mode of production is as follows: The performer, holding the wand in his left hand and drawing attention to it by some remark as to its mysterious power of production and absorption, secretly takes with his right hand, from the servante or elsewhere, a ball, which he immediately palms (preferably by the first method). Daintily holding the wand by either end with the left hand, in such manner as to


Fig. 87.
show that the hand is otherwise empty, he slides the thumb and fingers of the right hand (the back of which is naturally toward the audience) lightly to the opposite end, at the same moment rolling the ball with the thumb to the ends of the fingers, as already described. (See Fig. 87.) The ball thus comes in sight just as the hand leaves the wand, the effect to the eyes of the spectators being that the ball is, by some mysterious process, squeezed out of the wand.

To Return a Ball Into the Wand.-This is the converse of the process last described. Taking the wand in the left hand, as before, and the ball between the thumb and second joint of the forefinger of the opposite hand, the performer lays the end of the wand across the tips of the fingers, and draws the hand gently downward along it, at the same time palming the ball by the first method.

To Pass One Cup Through Another.-This is an effective sleight, and by no means difficult of acquirement. Taking one of the cups, mouth upward, in the left hand, and holding another in a similar position in the right hand, about a foot above it, the performer drops the right-hand cup smartly into that in the left hand (which latter should be held very lightly). If this is neatly done, the lower cup will be knocked out of the hand by the concussion, while the upper one will be caught and held in its place, the effect to the eye of the spectator being as if the upper cup had passed through the other. The lower cup may either be allowed to fall on the ground or table, or may be caught by the right hand in its fall.

The successive appearances and disappearances of the balls underneath the cups are known by the name of "Passes;" the particular combination of such passes being governed by the taste and invention of the performer. The series most generally in use is derived from a work dating from the last century, the Recreations Mathematiques et Physiques of Guyot; and Guyot, we
believe, borrowed it from a German source. The series given below, which will be found very effective, is derived mainly from that of Guyot, as improved by Ponsin, a later and very ingenious writer on the art of prestidigitation.

The cups and balls require, even more than conjuring generally, a running accompaniment of talk. Each Pass should have its own "boniment," or "patter," carefully prepared and carefully rehearsed. It would be impossible to give, within any reasonable limits, appropriate patter for each of the Passes. This each performer must arrange for himself, so as to suit the style and character in which he performs; as it is obvious that the low comedy style of a mountebank at a country fair would be utterly unsuitable in an aristocratic drawingroom, and vice versa. We shall, however, give a specimen or two in the course of the various Passes. The burlesque introduction next following is a paraphrase of a similar address quoted by Robert-Houdin:

Introductory Address. "Ladies and Gentlemen: In an age so enlightened as our own, it is really surprising to see how many popular fallacies spring up from day to day, and are accepted by the public mind as unchangeable laws of nature.
"Among these fallacies there is one which I propose at once to point out to you, and which I flatter myself I shall very easily dispose of. Many people have asserted, and, among others, the celebrated Erasmus of Rotterdam, that a material object can only be in one place at one time. Now I maintain, on the contrary, that any object may be in several places at the same moment, and that it is equally possible that it may be nowhere at all.
' I must beg you to observe, in the first place, that I have nothing in my hands-except my fingers; and that between my fingers there is nothing save a few atoms of the mysterious fluid which we call the atmosphere, and through which our jolly old Earth spins so mer, rily along. But we must leave the common-place re-.
gions of astronomy, and return to the mysteries of hermetic science.
"I have before me, as you will have noticed, three little cups or goblets. The metal of which these are composed is an amalgam of costly minerals, unknown even to the most profound philosophers. This mysterious composition, which resembles silver in its solidity, its color, and the clearness of its ring, has over silver this great advantage, that it will at pleasure become as penetrable as air, so that solid bodies pass through these goblets as easily as they would through empty space. I will give you a curious illustration of this by making one goblet pass through another." ('This the performer does in the manner already described, and after a moment's pause, continues, taking up his wand in his left hand, and secretly palming a ball in his right.) "This little wand, you are possibly aware, ladies and gentlemen, goes by the name of Jacob's Rod. Why it is so called I really don't know; I only know that this simple-looking wand has the faculty of producing various articles at pleasure. For instance, I require for the purpose of my experiment a little ball. My wand at once supplies me." (He produces a ball from the wand, and lays it on the table.)

With this or some similar introduction, the performer proceeds to exhibit.

Pass I. Having Placed a Ball Under Each Cup, to Draw it Out Again Without Lifting the Cup.-Having produced a ball from the wand as last described, and having laid it on the table, the operator continues: "Allow me to show you once more that all the cups are empty" (he raises them one by one, and replaces them), " and that I have nothing in either of my hands. I take this little ball" (he picks it up with the right hand, and apparently transfers it to the left, really palming it in the right), 'and place it under one of the cups." Here he raises the cup with the right hand, and simulates the action of placing the ball under it with the left. "I draw anotherball from my wand" (this is really the same ball, which remained palmed in the right hand), "and
place it in like manner under the second cup." He goes through the motion of transferring it to the left hand and thence to the cup, as before, but this time actually does what on the former occasion he only pretended to do, and leaves the ball under the middle cup. "I produce another ball'"-he half draws the wand through his fingers, but checks himself half-way. "I think I heard some one assert that I have a ball already in my hand. Pray satisfy yourselves" (showing the palms of his hands, the fingers carelessly apart) "that such is not the case. A lady suggested just now, by the way-it was only said in a whisper, but I heard it-that I didn't really put the balls under the cup. It was rather sharp on the part of the lady, but you see she was wrong. Here are the balls." So saying, the performer lifts up the middle cup with his left hand, and picking up the ball with his right, holds it up that all may see, immediately replacing it under the same cup. The last movement is simulated only, the ball being in reality palmed in the supposed act of placing it under the cup. "We have now a ball under each of these two cups. We only want one more, and-here it is''-apparently producing a third ball (really the same again) from the wand. "We will place it under this last cup." He actually does so. "Now, ladies and gentlemen, we have three cups and three balls, one under each cup. So far, I admit that I have not shown you anything very surprising, but now comes the puzzle, to take the balls from under the cups. Perhaps some of you sharp gentlemen will say there isn't much difficulty in that. Lift the cup, and pick up the ball!'" He suits the action to the word, lifting up the third goblet with the left hand, and picking up the ball with the right. "A very good solution, but it doesn't happen to be the right one. The problem is to draw out the balls without lifting the cups." Here he replaces the cup, apparently placing the ball beneath it, but really palming it, as already described in the case of the middle cup, and then returns to the first or furthest cup; touching the top of the goblet, he lets the palmed ball drop to his finger tips, and immediately
exhibits it, saying-"This is the way $I$ take the balls out of the cups. The ball being no longer needed, I return it into the wand." This he does as before described, and immediately afterwards, if desired, hands the wand for examination. "In like manner I draw out the second ball" (he repeats the same process with the middle goblet), "and pass that also into my wand. I need not even handle the goblets. See, I merely touch this third goblet with my wand, and the ball instantly appears on the top." The company, of course, cannot see any ball on the end of the wand, but a ball is nevertheless taken thence by the process already described, of letting the palmed ball drop to the tips of the fingers, as they come in contact with the wand. "I pass this also into my wand. Stay, though, on second thought, I shall want a ball for my next experiment, so I will leave it here on the table."
We have given a somewhat elaborate description of this first Pass, in order to give the reader some idea of the various feints and artifices employed in relation to the cups and balls. It would be impossible, from considerations of space, to do this to each of the Passes, and the reader must therefore remember that the descriptions following give merely the essential outlines, which must be worked up to dramatic effectiveness by the ingenuity of the individual performer. Where practicable, we shall allow the few words put into the mouth of the performer to indicate the actions accompanying them, only giving special "stage directions" in cases where the performer does not suit the action to the words. For the sake of distinctness, we shall indicate the goblets (reckoning from the left hand of the performer as $\mathrm{A}, \mathrm{B}$, and C. (See Fig. 79.)

Pass II. To Make a Ball Travel Invisibly from Cup to Cur.-''Now, ladies and gentlemen, if you watch very closely, you will be able to see the ball travel from one cup to another. I take the ball" (transfers it apparently to left hand) "and place it under this cup (C). You all see that there is nothing under this one" (B).

In raising $B$ with the right hand he introduces under it the palmed ball. "I shall now command the ball which I have just placed under the first cup (C) to travel under this one (B). Attention! and you will see it pass.'" He makes a motion of the wand from one cup to the other. "There it goes! This cup (C), as you see, is empty, and under this one (B) is the ball. I will replace it under this same cup" (B). He in reality palms it. "There is nothing under this cup'" (A). He secretly introduces the ball under A. "Now observe again. Pass! Did you see it? No? Well, I don't much wonder at it, for I can't always see it myself. Here it is, however', (lifts A), "and this cup (B) is empty." He replaces the cups on the table, and lays the ball beside them.

Pass III. Having Placed a Ball Under Each of the End Cups, to Make Them Pass Successively Under the Middle Clp. Before commencing this Pass, the performer, while placing the goblets in line, or otherwise engaging the attention of the audience with his left hand, takes from the servante with his right, and palms, a second ball. He continues, "For my next experiment, ladies and gentlemen, I shall require two balls. I need hardly remark that I could instantly supply myself from the wand; but there is a curious property about the balls themselves; they have a constant tendency to increase and multiply. For instance, without having recourse to the wand, I can instantly make this one ball into two" (he takes up the ball on the table in his left hand, taking care so to hold it that all may see that there is nothing else in his hand), "and the most curious part of the matter is, that though mathematicians insist that the whole is always greater than its part, in this case each of the parts will be found precisely equal to the whole." As he speaks, he takes the ball from the left hand with the fingers of the right, at the same time dropping the palmed ball into the left hand, and now taking care to so hold his right hand as to show that it contains the one ball only. He then again replaces this ball in the palm of the left hand, where it lies side by side with the sec-
ond ball. Rubbing the left palm with the second and third fingers of the right, with a circular motion, he gradually lifts the fingers, and shows the single ball apparently transformed into two, both of which he places on the table.
"You will observe that there is nothing under this cup (C). I will place under it this ball", (he really palms it); "neither is there anything under either of these two cups', (B and A). He lifts the cups one with each hand, and secretly introduces the palmed ball under B. "I take this second ball, and place it under this cup" (A). He really palms it. "We now have a ball under each of these two oups" (A and C). "I draw the ball out of this one" (C). He touches the top of the cup, and produces the ball last palmed at his finger-tips. "I order it to pass under this middle cup" (B). He apparently transfers it to the left hand, really palming it, and then makes a motion with the left hand, as if passing it into B. 'It has passed, you see!'" He raises B with his right hand, showing the ball under it, and in replacing it secretly introduces the second palmed ball. "Now I order the ball in this cup (A) to pass in like manner." He waves his wand from $A$ to $B$, and then lifts B. "Here it is, and these two outer cups" (turning them over with the wand) "are perfectly empty."

Pass IV. Having Placed Two Balls Under the Middle Cup, to Make Them Pass Under the Two Quter Ones. "You have just seen these two balls pass under the middle cup; now, by way of variety, we will make them pass out of it. I will take the two balls, and place them under the middle cup." He really so places one only, palming the other. "You observe that there is nothing either under this (A), nor under this (C)." Here he secretly introduces the palmed ball beneath $C$. "Now I order one of the balls under the middle cup to pass under one of the outer cups. Let us see if it has done so" (lifts middle cup with left hand). "Yes, here is only one left." He takes it up and shows it with right hand, then makes the gesture of replacing, but
really palms it. "Let us see where it has gone", (lifts A. with right hand, and in replacing it secretly introduces the palmed ball under it). "It is not under this one. Then it must be under this.'" He lifts C. ''Yes, here it is. Now I command the other ball in like manner to leave the middle cup, and pass under the other (A). Pass! Here it is, you see, and this one (B) is entirely empty."

Pass V. To Pass Three Balls in Succession Under One Cup. "So. far, ladies and gentlemen, what I have shown you has been mere child's play.' He drops the right hand carelessly to the servante, and picks up two more balls, one of which he holds between the fingers, and the other in the palm. "The real difficulty only begins when we begin to work with three balls. Now which of these two balls" (taking up the two balls from the table) "is the larger? This one, I fancy, has the advantage, so I will pinch a little piece off to make a third ball." He goes through the motion of pinching the ball with the fingers of both hands, at the same moment letting fall the ball in the palm to the tips of the fingers of the right hand. "Yes, this will do. It isn't quite round, but that is easily rectified." He rolls it between the fingers. "That is better. Now watch me closely, ladies and gentlemen." He places the balls upon the table, with the exception of the fourth, which remains concealed between the fingers. "You see that there is nothing under either of the cups." He raises all three, and introduces the fourth ball under the middle one (B). He then picks up one of the balls on the table, and apparently transfers it to his left hand, really palming it. "I command this ball to pass into the middle cup. It has passed, you see" (raising the cup with the right hand, and in replacing it, introducing the ball now palmed). The operation is repeated in like manner, until three balls have been shown under the cup, the fourth finally remaining palmed in the right hand.

Pass VI. To Place Three Balls One After the

Other Upon the Top of One of the Cups and to Make Them Fall Througit the Cup on to the Table.-At the conclusion of the last pass the performer had brought three balls under the center cup B, a fourth remaining concealed in his hand. In lifting B to exhibit the three balls, and in replacing it beside them, he takes the opportunity of introducing beneath it this fourth ball. He next takes one of the three balls thus exposed, and placing it on top of this same goblet (B), covers it with a second goblet (A). Making any appropriate gesture he pleases, he commands the ball to fall through the lower goblet on to the table. He then overturns the two goblets, without separating them-their mouths being towards the spectators-when the ball which he had secretly introduced is discovered, and appears to be that one of the goblet (but which really still remains between the two goblets) and he then picks up the two goblets together, mouth upwards, with the left hand, and with the right hand takes out the one which is now uppermost (B). He next turns both the goblets down upon the table, placing A over the ball which he has just shown. If this is neatly done, the other ball, which has remained in A, will not be discovered, but will as it falls be covered by A , which will now have beneath it two balls. The performer now places one of the remaining balls on the top of A, covering it with either of the other goblets, and again goes through the same process till he has shown the first two, and then three balls under the cup, the fourth remaining at the close of the pass between the two cups last used.

Pass VII. To Pass Three Balls in Succession Upwards Through the Table Into One of the Cups. You have concluded the last pass (we will suppose the reader to represent for the time being the performer) by lifting two cups together to show three balls beneath the under most. Holding two cups in the left hand, turn them over, mouth upwards. Take with the right hand that one which is uppermost, and place it on the table in the ordinary position, still retaining the other, in which,
unknown to the spectators, a fourth ball still remains. Then remark: "Ladies and gentlemen, you may possibly imagine that there is some trick or sleight-of-hand in what I have shown you, but I am now about to perform an experiment in which that solution is clearly inadmissible. I propose to pass these three balls, one after the other, through the solid table into this empty goblet. Pray watch me carefully. I take away one of the balls" (you take in the right hand one of the three on the table) ' and hold it beneath the table, thus. My left hand, as you will observe, is perfectly empty. I have only to say, 'Pass!'" You palm the ball in the right hand, at the same time giving a gentle tap with one finger against the under surface of the table, and immediately bring up the hand, taking care, of course, to keep its outer side towards the spectators; then gently shake the cup which you hold in the left hand, and turn the ball out upon the table. "Here it is, you see. Now I will put it back in the cup." You pick up the ball with the right hand, and drop it into the cup, secretly letting fall with it the palmed ball, "and I take another ball." You repeat the process, and show two balls in the cup; then you repeat again (each time dropping in the palmed ball), and show three balls retaining the fourth ball, still palmed, in your right hand.

[^1]it. "It has passed, you see." You lift C, and show the ball which is already there; and in again covering the ball with the cup, you secretly introduce that which you just palmed. You now have in reality two balls under each of the end cups, and none under the center one; but the spectators are persuaded that there is one ball under each cup. "We now have one ball under each cup. Now I shall command the ball that is under the center cup to pass into either of the end ones at your pleasure. Which shall it be?" Whichever cup is chosen, suppose C, you raise and show the two balls under it. You then ostensibly replace the two balls under C, but really replace one only, palming the other. You then raise the middle cup (B), to show that it is empty, and, in replacing it, introduce the ball you have just palmed under it. "Now I shall next order one of the two balls you have just seen under this cup (C) to go and join the one which is already under this other (A). Pass! Here it is, you observe.' You raise A to show that there are two balls under it. You also raise $C$ to show that it now only contains one ball, and leave all three balls exposed on the table.

Pass IX. To Make Three Balls in Succession Pass Under the Middle Cup. At the conclusion of the last pass, three balls were left in view, while a fourth, unknown to the audience, was hidden under the middle cup. You proceed, picking up a ball with the right hand, "I take this ball, and place it under this cup', (C); (in reality palming it). "I now order it to pass under the middle cup. Presto! Here it is, you see." You raise the middle cup to show that the ball has obeyed your command, and, in again covering the ball, secretly introduce with it that which you have just palmed. 'I take this one"' (you pick up another), '"and place it under this cup" (A)-here you palm as before-" and order it also to pass under the middle cup." You raise the middle cup, and show that there are now two balls under it, and, in again covering them, introduce the ball which you last palmed. "I take this last ball, and place it
under this cup" ( C )-palming it-"whence I shall command it to again depart, and join its companions under the middle cup. This time it shall make the journey visibly." You take your wand in the left hand, and with it touch the cup C. "Here it is, you see, on the end of my wand. . You don't see it? Why, surely it is visible enough. Look." You pretend to produce the palmed ball from the wand, and exhibit it to the company. "You can all see it now." You lay down the wand, and go through the motion of transferring the ball to the left hand, really palming it in its passage. "Now, then, pray watch me closely, and you will see it pass under the cup. One, two, three!" You make the gesture of throwing it through the middle cup, and open the hand to show it empty, immediately turning over the goblets to show that there are three balls under the middle and none under the outer ones.

Pass X. The "Multiplication" Pass.-For the purpose of this pass it is necessary to borrow a hat, which you hold in the left hand. You then place the three balls in a row upon the table, and cover each with one of the cups. It will be remembered that a fourth ball remains palmed in your right hand. You now lift up the right hand goblet (C), and place it on the table close beside the ball which it lately covered, and as you do so, secretly introduce beneath it the palmed ball. You pick up with the right hand the ball which you have thus uncovered, and go through the motion of dropping it into the hat ; but in reality palming it in the moment during which the hand is concealed inside the hat, and at the same moment simulating, by a gentle tap against the inside, the sound which the ball would make if actually dropped into the hat. You next lift B in like manner, introducing the ball just palmed beneath it, and go through the motion of placing the second ball, which is thereby left exposed, in the hat. You do the same with the third cup, then return to the first (which the spectators believe to be now empty, and from which they are astonished to see you produce another ball), contin-
uing till you have raised each cup in succession eight or ten times, and, on each occasion of lifting a cup you uncover a ball and introduce beneath that cup the ball which you have just previously palmed. To the eyes of the spectators, who believe that the balls are really dropped into the hat, the effect will be exactly as if new balls, by some mysterious proces of reproduction, came under the cups at each time of raising them. When you think your audience is sufficiently astonished, you remark, "I think we have about enough now ; the hat is getting rather heavy. Will some one hold a handkerchief to receive the balls?" When the handkerchief is spread out, you carefully turn over the hat, and the general astonishment will be intensified at discovering that it contains nothing.

There is, of course, a ball left under each of the cups, and a fourth palmed in your right hand. This latter will not again be wanted, and you should therefore, while attention is drawn to the hat, drop it upon the servante, or into one of your pochettes.

Pass XI. To Transform the Small Balls to Larger Ones. While the attention of the spectators is still occupied by the unexpected denouement of the last pass, you should prepare for this one by secretly taking with your right hand from the servante, and palming, by either the second or third method, (the first being only available for the small balls) one of the larger balls. You then address the spectators to the following effect: "Ladies and gentlemen, you see that I have little difficulty in increasing the number of the balls to an unlimited extent. I will now repeat the experiment in another form, and show you that it is equally easy to make them increase in size. You will observe that, notwithstanding the number of balls which I have just produced from the cups, there are still plenty more to come." Here you raise C, and show that there is a ball still under it. You replace it on the table at a few inches' distance, and as you do so secretly introduce under it the larger ball which you have just palmed. Taking up
the small ball in your right hand, you say, "To make the experiment still more surprising, I will pass the ball upwards through the table into the cup." So saying, you place the right hand under the table, dropping as you do so the little ball which you hold on the servante, and taking in its place another of the larger balls. "Pass!" you exclaim, at the same time giving a gentle rap on the under surface of the table. You bring the hand up again as if empty. You do not touch the first cup, but repeat the operation with the second, B, and again with A; on each occasion of passing the hand under the table exchanging a small ball for a larger one, and immediately afterwards introducing the latter under the cup next in order. The last time, however, you merely drop the small ball on the servante, without bringing up any other in exchange. You now have, unknown to the audience, one of the larger, or medium-sized balls under each of the cups; and if you were about to end with this pass, you would merely lift the cups and show the balls, thus apparently increased in size, underneath. We will assume, however, that you propose to exhibit the pass next following (one of the most effective), in which case the necessary preparation must be made in the act of raising the cups; and we shall therefore proceed at once, while the balls still remain covered, to describe this pass.

Pass XII. To Again Transform the Balls to Still Larger Ones. The last pass having reached the stage we have just described, $i$. e., a large ball being under each cup, but not yet exhibited to the audience, you secretly take in your left hand from the servante one of the still larger balls. These balls should be soft and elastic, and of such a size that, if pressed lightly into the cup, they shall require a slight tap of the cup on the table to dislodge them.
Having taken the ball in the left hand, you hold it at the ends of the fingers behind the table, as near the top as possible consistently with its being out of sight of the spectators. Then saying, "Now, ladies and gentlemen, I must ask for your very closest attention," you
raise $C$ with the right hand, and with the same movement lower it for a moment behind the table, and over the ball in the left hand, which remains in the cup of its own accord. All eyes go instinctively to the ball on the table, whose increased size is a new phenomenon, and not one in a hundred will, in this first moment of surprise, think of watching the cup, which is naturally supposed to have, for the moment, concluded its share of the trick. You replace the cup on the table lightly, so as not to loosen the ball, meanwhile getting ready another ball in the left hand, and repeat the operation with B. With A you make a slight variation in your mode of procedure. Taking a third ball in your left hand, you hold it as before, but, as if through carelessness or clumsiness, allow it to be seen for a moment above the edge of the table. When you raise the third cup, you move it. behind the table as before, and make a feint of introducing the ball which the spectators have just seen, but really let it drop on the servante, and replace the cup empty. A murmur from the spectators will quickly apprise you that they have, as they imagine, found you out. Looking as innocent as you can, you inquire what is the matter, and are informed that you were seen to introduce a ball into the cup, 'I beg your pardon,'' you reply, lifting up, however, not $A$, which you have just replaced, but $C$, which is the most remote from it. There is really a ball in this cup, but having been pressed in, and fitting tightly, it does not fall. The spectators, seeing you raise the wrong cup, are more and more confirmed in their suspicion. "Not that one, the other," they exclaim. You next raise B , the ball in which also does not fall for the reason already stated. "No, no," they shout, "the other cup, the end one." You are really very obstinate, gentlemen," you reply, "but pray satisfy yourselves," turning over A as you speak, and showing the inside, which is manifestly empty, and your critics rapidly subside. Meanwhile, you drop your left hand to the servante, and secretly take from it two similar balls. Then, addressing the audience, you say, 'Surely, gentlemen, you don't imagine that, if I wanted
to place a ball under a cup, I should set about it after such a clumsy fashion as this!'" As you say this, you place your left hand in your left pocket, as if taking a ball from there (as it obviously would not do to give the audience cause to suspect the existence of a secret receptacle behind the table), and bring out again the, two balls, but allow one only to be seen, keeping the other concealed in the palm. Bringing the cup over the hand, you squeeze in both balls as far as you can, when the innermost will remain, but the outermost, not having sufficient space, will drop out again on the table. The spectators, not knowing that there are two balls, believe the cup, which you now replace on the table, to be empty. You continue, 'No, gentlemen, when I pass a ball under a cup, you may be sure that I don't let anybody see me do so." As you speak, you take the ball on the table in your right hand, and make the movement of transferring it to your left, really palming it by the second method, and holding the left hand closed and high, as if containing it, and keeping your eyes fixed thereon, you carelessly drop your right hand till the finger-tips rest on the table, when you are able to let fall the ball upon the servante. You continue, "I will now pass this ball under either of the cups which you like to name. Indeed, I will do more; I will cause this ball invisibly to multiply itself into three, one of which shall pass under each of the cups. First, however, let me show you that there is nothing under the cups at present." You raise each in turn-"Nothing here, nothing here, and nothing here!'’ The balls still adhere to the sides of the cups, which, therefore, appear to be empty, but you replace each with a slight rap on the table, and thereby loosen the ball within it. "Now, then!" You bring the two hands together, and gently rub them over each cup in turn; finally parting them and showing that both are empty, and then lifting the cups, show the three large balls underneath.

Some performers, in lifting each cup with the right hand, introduce a fresh ball, held in the left hand, as already explained. The effect is the same as in the
"Multiplication'" pass, already described, with this difference, that on each occasion of uncovering a ball, the ball remains on the table, which thus becomes gradually covered with an ever-increasing number of balls. Some, again, conclude by apparently producing from the cups objects much larger than they could naturally contain, e. g., large apples, Spanish onions, etc. This is effected in the same manner as the introduction of the large balls just described, save that in this case the object, which cannot really go into the cup, is merely held against its mouth with the third finger of the right hand, and dropped with a slight shake, as if there were a difficulty in getting it out.

There are many other cup-and-ball passes, but the series above given will be found as effective as any. If any reader desires to follow the subject further, we would refer him to the Recreations Mathematiques et Physiques of Guyot, already quoted, or another old work, under the same title, by Ozanam, in which this branch of prestidigitation is treated at considerable length.

## CHAPTER XII.

ball tricks requiring special apparatus.
The Ball Box.-The leading idea of most of the tricks which we are about to describe is the magical appearance or disappearance of a ball. So far, they resemble the cup-and-ball tricks described in the last chapter, but with this difference, that, in the case of the present series, the main effect is produced by mechanical means, any sleight-of-hand employed being rather an accessory than the leading feature. The oldest and simplest of the mechanical appliances for this purpose is that known as the "ball-box," consisting of a box two to six inches in height, of the shape shown in Fig. 88, and containing a ball which just fills it. The box consists


Fig. 88.
of three portions-the lower portion, or box proper, $a$, the lid $c$, and an intermediate portion, $b$, being a hollow hemisphere colored externally in imitation of the ball, and so fitted with reference to the box and lid, that it
may be either lifted off with the lid, leaving the box apparently empty, or may be left upon the box when the lid is removed, the effect to the eye being as if the ball had returned to the box. The ball-box is generally of turned boxwood, and is scored with concentric circles; which serve to disguise its double opening. Simply stated, its effect is as follows: The solid ball is first shown in the box, and then openly taken from it, and the box covered with the lid. The ball is then disposed of by one of the methods before described, and a pretense is made of passing it invisibly into the box. The lid is removed without the intermediate portion $b$, and the ball appears to have returned to the box. Again the lid is replaced, and again removed; but this time $b$ is removed with it, and the box again appears empty. The trick in this form is to be found in every toy-shop, and is so well known as to produce scarcely any illusion, but its transparency may be considerably diminished by previously palming (in the right hand) the movable shell $b$, the convex side being inwards, and then hand-ing-round the remaining portions and the solid ball for inspection. When they are returned, the performer apparently places the ball in the box, but really makes a secret exchange, and places $b$ in the box instead. Upon again removing the lid, and with it $b$, the ball has disappeared; and as the spectators have, as they believe, inspected the whole apparatus, the mode of its disappearance is not quite so obvious as in the first case. At best, however, the ball-box, in this its pristine form, is a clumsy and inartistic contrivance, and has long been relegated to the juvenile and country-fair school of conjuring. There is, however, an improved apparatus for producing a similar effect, which is generally worked in couples, under the name of :

The Red and Black Ball Vases. The receptacle for the ball is in this case made in the form of a neat vase, and without any of those tell-tale grooves which disfigure the older ball-box (See Fig. 89). Like its prototype, it is in three parts, which we will distinguish as
before by the letters $a, b$, and $c$. The portion $b$, however, in this case goes completely within the lid $c$, within which it fits just tightly enough to be lifted off with it.


Fig. 89.
When, however, the performer desires to leave $b$ upon $a$, he presses down, in the act of lifting off the cover, a movable button or stud at the top. This pushes out the shell $b$ from the cover, and, when the latter is lifted, leaves it upon $a$. When used in pairs, the ball-vases are usually made with one red and one black ball, the shells $b$ of each vase being also one black and one red. The balls are first offered for examination, after which the red ball is placed in the vase containing the black shell, and the black ball in that which contains the red shell. The vases are then covered, and on the covers being again removed, leaving the hollow shells upon the vases, the red ball being covered by the black shell, and the black ball by the red shell, the effect to the spectator is as if the two balls had changed places. By leaving alternately the one or the other shell over its respective
vase, the ball in the opposite vase being left uncovered, the vases may be made to appear as if both contained red balls or both black balls, the genuine balls being finally again exhibited as at first.

There is yet another form of ball-box, also frequently worked in pairs, and designed to simulate the apparent passage of a ball from the one box to the other. The vase in this case consists of two parts only, the vase proper, $a$, and the cover, $b$, but the latter is of such a height as to completely contain the ball, and of such a nize internally, that, if the ball be jerked up into the cover, it will not again fall, unless a slight shake be used to displace it. (See Fig. 90.) Each vase has its own ball, and the mode of use is as follows: One of the vases is prepared beforehand by jerking up the ball into


Fig. 90.
the cover, which may then be removed, showing the vase apparently empty; or both may be first shown empty, and the ball then introduced secretly under the cover, after the manner of the cups and balls. The remaining vase and ball are offered for inspection, and when they
are returned, the ball is placed within and covered over, after which the closed vase is placed upon the table; but in the act of doing this the performer gives the apparatus a slight upward jerk, thereby causing the ball therein to rise into the cover, where it remains. The seconly vase is once more shown empty, but in replacing it on the table, the performer puts its down sharply, thereby causing the ball to drop from the cover into the cup. He now orders the ball, which the spectators have seen placed in the first vase, to pass invisibly into the second; and on again opening the two, this transposition will appear to have taken place, and by a repetition of the process the ball may be made to travel backwards and forwards from one vase to the other.

Morison's Pill-Box.-In this trick (called by French conjurers La Pilule du Diable) the device of the "shell"' is carried still further. The box in this case is spherical,


Fig. 91.
standing upon a thin stem (see Fig. 91), and each part (box proper and lid) contains a half shell, the edge of one having a rebate or shoulder, so as to fit into the other, the two conjoined having the appearance of a solid ball.

The genuine ball is of such size as just to fill the hollow shells when thus joined. The lower shell fits loosely in the box, the upper one a little more tightly, so as not to fall out unless pressed down by a button on the top of the lid, which not only loosens it from the lid, but presses it into union with the lower shell.

The mode of using the apparatus is as follows: It is first brought forward with one half shell in the box, and the other in the lid, the true ball, which is of the same color as the shell (generally black) being placed within the lower shell. The ball is ostentatiously removed, and the box closed. The ball is then either placed in some piece of apparatus adapted to cause its disappearance, or is made to vanish by sleight-of-hand in one of the methods already described. The ball is now ordered to return to the box, which, for greater certainty, is once more shown empty. The performer again closes it, pressing as he does so the button on the top of the lid, thus compelling the two half shells to coalesce; and on again reopening the box, the ball has, to all appearance, returned as commanded. The ball-box now under consideration has this great advantage over the single-shell vases, that the sham ball can be completely removed from the box, and shown on all sides, thus (apparently) negativing the possibility of its being a shell only.

The trick may be also worked very effectively by using a genuine ball of a different color from the shell, with the addition of a duplicate of each. Thus, if the shell be black, you must be provided with a solid ball of the same color, and two red balls. One of the latter, as also the solid black ball, should be of such a size as to go inside the shell, the remaining red ball being of the same size of the shell in its complete condition. The half shells being in their place in the box, the performer brings it forward, together with the smaller red and black ball, keeping the remaining red ball concealed in his palm. Borrowing a handkerchief, he wraps (apparently) the black ball therein and gives it to somebody to hold (really substituting the palmed red ball, and getting rid of the black ball as soon as he can into one of his secret pock-
ets). He then places the remaining red ball in the box, and having covered it over, commands the black ball in the handkerchief to change places with the red one in the box. Upon examination, the change has apparently taken place, the red ball in the box being now enclosed within the hollow shell, and thus having all the appearance of the solid black ball.

The Ball Which Changes to a Rose. -This is a little more than an enlarged edition of the apparatus just described, the ball in Morison's pill-box being generally of about an inch and a half in diameter, while in the presens case the ball is nearly double that size. (See Fig. 32.) The only other difference is the addition of a short pin, about a sixteenth of an inch in length, projecting from the bottom of the cup, and fitting into a


Fig. 92.
corresponding hole in the lower shell. The addition of this pin enables the performer, after having pressed the stud at top, and thus caused the ball to appear in the previously empty box, to again cause its disappearance. This is effected by opening the box with a slight lateral pressure, when the pin acts as a stop or check to held back the lower shell; and the shells which are in this
instance made to fit rather more loosely together, are thus forced to separate again, the lower being left in the cup and the upper in the lid, as before.

This apparatus is generally used with a solid black ball and a couple of artificial rose-buds, as nearly alike as possible. The apparatus is brought forward empty, and with the solid ball and one of the rose-buds, is handed to the audience for inspection. The two half shells, joined together so as to form a hollow ball, with the second rose-bud within, are placed ready to hand in one of the pochettes of the performer. The audience having duly examined the apparatus, the performer returns to his table, secretly exchanging as he does so the solid for the hollow ball. This latter he places openly in the cup, taking care that the hole in the lower shell duly corresponds with the pin at bottom, and puts on the cover. He now announces that the ball which he has just placed in the cup will at his command fly away, and that the rosebud which he holds shall take its place. The disappearance of the visible rose-bud is affected in any way that the invention or the appliances at command of the performer may suggest ; and on the box being opened, so as to part the two shells, the ball has apparently disappeared, and the rose has taken its place. By again closing the box, and this time pressing the stud on the top, the flower may again be made to vanish, and the ball to reappear in its original position.

The popular trick of the "flower in the button-hole," which will be described under the head of "Miscellaneous Tricks,' may be used in conjunction with this apparatus, the ball being found in the place of the flower, while the latter is made to appear in the button-hole.

A similar apparatus to the above is sometimes made in metal, and of a size sufficient to enclose a cannon-ball, which being made to disappear, its place is supplied by a variety of articles which have been otherwise disposed of at an earlier period.

The Obedient Ball.-Readers of another work on Magic will have made the acquaintance of the "Obedient

Ball," a solid ebony sphere with a tapering bore, through which a piece of whipcord is threaded. The diameter of the bore is many times larger than that of the whipcord, which therefore normally runs through it with perfect freedom. If, however, the cord be held in a vertical position, with one foot of the performer on its lower end, the ball will remain suspended at any point at which it may be placed, or to which it may be allowed to sink down.

The Obedient Ball, as above described, may now be purchased from a quarter upwards, and is so well known as to be hardly worth exhibiting. When, however, a performer takes an orange, chosen hap-hazard, and obviously free from preparation, threads a piece of whipcord through it with the aid of a packing-needle and forthwith compels it to behave after the same manner, the trick assumes a new complexion, and may again be exhibited with satisfaction, the more so that in this shape it is as yet unknown tr, the conjuring depots.

The principle of the trick is the same as that of the "ball," but it is slightly different in detail. The "fake"


Fig. 93.
in this case consists of a little tin tube, an inch and threequarters long, tapering from three-eighths of an inch at its base to one-eighth at its apex, and slightly bent in the centre, after manner shown in Fig. 93. This is threaded
beforehand on the cord, after the manner of the "plug'" in the older trick, and forced into the orange by pressure as soon as the cord has been threaded through the latter. The packing-needle used should be of large size, say one-eighth of an inch thick, while the cord is an ordinary piece of thin whipcord.

There is further a new form of Obedient Ball, sold at conjuring depots, which is a vast improvement on the old one, the knowledge of this latter giving no hint whatever of the secret of its successor. Many of those, even, who know and use the improved ball would be puzzled to explain its modus operandi; indeed it is rather a difficult matter to explain at all, though dissection of the apparatus makes it readily intelligible. The cord in this case is permanently threaded through the ball (the bore being only just large enough to allow of its free passage) and it is kept secure by a tassel at each end. When the cord is held upright, not only will the ball stop at any


Fig. 94.
point of its downward course, but it will at command climb higher up the string, ascending, stopping or descending at the will of the performer.

This curious, and at first sight inexplicable effect is
produced by a little mechanical arrangement within the ball. See Fig. 94 (which shows a section of the ball). It consists of a double pulley or wheel working on an axis fixed across the internal diameter of the ball, at right angles to the course of the string. The periphery of the one side of the wheel is more than double that of the other, and each has a deep flange. The supposed "cord" is in truth two cords. The cord $a$, which passes out at the bottom of the ball, is coiled on the larger wheel, and its inner end is secured thereto. The cord $b$, which passes out at the top, is attached to the smaller wheel, Holding the cord $b$ in the hand the effect of letting the ball run down is to unwind the cord from the smaller and coil it up on the larger wheel. But so soon as the cord is held taut and a "pull" is made upon it, the contrary result takes place. If both wheels were of the same diameter, the pull of the one cord would exactly counterbalance that of the other, but as the one is coiled on a large, and the other on a small wheel, the large wheel (having greater leverage) gets the mastery, uncoiling $a$, and at the same time coiling up $b$. The cord below the ball being thus lengthened, and that above it shortened, as a necessary consequence the ball rises.

As the small wheel takes up a less quantity of cord than the large wheel releases, it naturally follows that the total length of the cord above and below the ball is increased by the pull. This fact, if noticed, would naturally suggest to an acute observer some mechanical arrangement within the ball, and the performer should therefore endeavor, by winding the upper part of the cord round his hand, or otherwise, to disguise the fact of such lengthening. One expedient for this purpose is to dispense with the use of the foot, and holding cord $b$ high up (and stationary) with the one hand, to make the necessary pull by a downward movement of the opposite hand. The lengthening of the cord is in such case much less noticeable than where the lower end of the cord is kept stationary, and the pull is made from above.

There should be some trifling difference (not sufficiently marked to be noticeable by the spectators) be-
tween the two tassels which adorn the ends of the cord, so that the performer may be able to see at a glance whether he has the right side of the ball uppermost. On the other hand, when offering the ball for examination, he should be careful to do so with the opposite tassel uppermost, as no amount of pulling on the cord, when in that position, will induce the ball to rise, indeed the tendency of the pull is to force it further down.

The ball will only travel for a limited distance up and down the cord, and it will be found an advantage to make a knot in each cord at the point which it will actually reach. From such knot to the tassel may be twelve or fifteen inches.

The total length of visible cord, when the ball is at its lowest point, should be about four feet. This, when the cord is pulled, and the ball raised to its highest point, is increased by twelve to fifteen inches.

Of course, as with most other conjuring tricks, the degree of effect produced by the ball will mainly depend on the manner in which it is presented. As good a mise en scene as any, perhaps, is to offer it as an illustration of "animal magnetism," the patter being to something like the following effect:
"I am about to show you, ladies and gentlemen, a curious illustration of the effect of mesmerism, or, more correctly, animal magnetism, on inanimate bodies. You are aware, of course, that animal magnetism, otherwise known as 'od' force (a very odd force indeed, if it did all that is attributed to it), is an invisible fluid pervading all Nature, by means of which the human will, which in ordinary cases only acts on our own bodies, may be made to influence other persons, and even inanimate matter.
"I have here a simple piece of apparatus arranged expressly for the purpose of illustrating this force. It consists of an ordinary wooden ball, with a cord passing through it. You observe that the cord runs backwards and forwards with perfect freedom' (you hold the cord horizontally, one end in each hand, and show that such
is the case), "and if the cord is allowed to hang perpendicularly, the ball as a matter of course falls to its lower end. Will some gentleman be kind enough to test the fact for himself?'" (you hand the ball with the cord $a$ uppermost). "Put your foot on one end of the cord, sir, and hold the cord upright. I will raise the ball. As soon as I release it, it falls, you see, and if it were not for this knot, which forms a.'stop,' your thes would have suffered considerably. Now, $I$ will take the ball in the same way." (In receiving the ball, you turn it with the cord $b$ uppermost, but hold the cord loosely.) "Again it falls, as you would naturally expect. But now I will mesmerize it a little." (You make pretended mesmeric passes over the ball.) "The first sign of the influence taking effect is that the ball no longer falls, but stops wherever it is placed on the cord.* The effect does not, however, end here. If the magnetic influence is strong enough, I can even compel the ball, by the power of my will, to climb up the cord. See, it begins to rise. Now it is under control, and if any lady or gentleman will express a wish as to its behavior, I will command the ball accordingly. What shall the ball do, ladies and gentlemen? Go slowly down the cord? Very good. It does so, you see. What next? Slowly up? Up it goes. More quickly? Good! It obeys. Up to half-way, and stop? It does so."

Another very pretty method of working the "ball" is with the aid of a lady's fan, the "patter" proceeding on the assumption that the ball is made to rise or fall by atmospheric pressure. The ball being suspended from the left hand, the performer takes the fan in the right, fanning above the ball to make it descend, and below to make it ascend; with greater or less vigor, as it may be desired that the ball shall move more or less quickly. THE NEW BILLIARD BALL PRODUCTION.
As a really startling and thoroughly graceful effect, this method of producing four billiard balls at the tips
*This effect is produced by holding the cord just taut, without any decided pull upon it.
of the fingers cannot be overestimated. This very popular trick is the sole invention of Mr. A. Roterberg, the Chicago magical dealer. It is, without doubt, the prettiest billiard ball sleight ever invented, and therefore I trust that an explanation of the easiest method of performing it will prove interesting to my readers.

The four balls are, in reality, three solid ones, and a half shell, which will exactly fit over and match each of the solid balls.

The shell we will call $A$, and the genuine balls $B, C$, and D. Prepare by slipping $B$ into $A$, which should then be placed, both together, in the left hand trousers pocket. C must be loaded under the waistcoat, and D concealed in the palm of the left hand. You are now ready to step on to the stage, and it will be found best to proceed in the following manner. Show both hands empty by making use of the change over palm, and then produce the ball D from behind the left knee. Apparently place it in the left hand, but really retain it in the right palm, and after causing it to vanish in the orthodox manner, produce the ball from the right hand trousers pocket. Offer to repeat the illusion in order that the spectators may follow the movement, but after showing the left hand empty, apologize for deceiving them again, and produce $A$ and $B$ together from the left side trousers pocket. This will be taken for the ball $D$, shat is still palmed in the right hand, and the duplicate will have to be held as in Fig. 95, between the thumb and first finger. The shell $A$ is in front, cover-


Fig. 95.
ing the ball B , the two of course appearing as one. Draw attention to the fact that your hand contains but one ball, and then stretch out and secure another in between the index and middle finger. This second ball is the one B. and the method of producing it is as follows: Let
the middle finger pass to the bottom of $B$, which should be gripped with a moderately tight pressure. Now raise the finger and the solid ball will be lifted out of the


Fig. 96.
shell, the operation being shown in Fig. 96, until it is brought right up to the position indicated in Fig. 97. The ball D, which during this time has been palmed in the right hand, is now inserted


Fig. 97.
into the shell from behind, under cover of the movement caused by taking $B$ between the fingers in order to show it solid. Thus it will be seen that, when $B$ is placed back between the first and second fingers, the shell will contain the ball D , while the right hand can be shown empty. In order to produce the third ball, a double


Fig. 98.
movement is necessary. The ball $B$ must be rolled up between the second and third fingers, and $D$ produced between the first and second; this latter operation being
the same as before; Fig. 98 illustrating the illusion in its present aspect.

For obtaining possession of the fourth ball, I make use of a rather novel move that never fails to cause a good laugh. Placing the thumb behind and the fingers around the center ball, it is apparently removed in the right hand and placed in the performer's mouth, the shape being made by pushing the tongue into the cheek. Really, when the ball $D$ is covered by the fingers, it is dropped down into the shell $A$, where it remains while the performer is apparently placing it into his mouth. The right hand is shown empty, and the protruding cheek gently touched with one of the fingers. The tongue is withdrawn, and at the same time the breath


Fig. 99.
drawn in, which causes the performer's vest to become loosened, allowing the ball C , which it will be remembered was placed under the waistcoat before the commencement of the experiment, to fall from beneath it into the right hand, which should be lowered to receive the same.

The ball should be placed between the third and fourth fingers of the left hand, and then $D$ produced between the first and second, in a manner which, by now, the reader should be thoroughly familiar with. The display made by the four is shown in Fig. 99, and to those performers who intend introducing the effect into their repertoire, I would say that they could not possibly make a better selection.

The Tube and Ball.-This is a very ingenious trick, and well worth the attention of the most fastidious performer. It can be used in several ways.

The apparatus consists of a $11 / 2$-in. brass tube about 7 -in. long, with a cap of the same metal fitting closely over one end; also two billiard balls about the size of the diameter of the tube. The spectators, however, are not supposed to know of the existence of more than one ball. (See Fig. 100.) The tube and cap, together with the ball, are given for examination, attention being drawn to the fact that the ball will readily pass through the tube.


Fig. 100.
After examination the tube is stood on one end on the table and covered with the cap. The operator then takes the ball and causes it to vanish by means of sleight-of-hand, when, on the tube being raised, it has to all appearances been passed underneath.

The secret lies in the fact that there is a very small dent in the side of the tube at the center; also that one of the balls-that given for examination-is slightly smaller than the other. The small ball runs freely through the tube, but the large one will not pass the center on account of the indentation.

On receiving back the tube the performer secretly drops the large ball into it, which, owing to the force of the fall, is pinched in the center and will not fall out. In this condition the tube can be turned about in all directions and will still appear empty. When placing it on the table the performer is careful to bring it down rather smartly on the end at which the ball was introduced, when, owing to the concussion, the ball is released and falls on the table.

The tube can be used to cause the disappearance of a ball in the following manner: Place the ball on a tea plate and cover it with the tube, which in turn cover with a second plate. By reversing the position of the structure the ball falls into the tube, where it is retained in the manner described, and after a little more twisting and turning, to add to the general confusion, the plates are removed and the ball is proved to be not there.

The ball can of course be reproduced if desired; or if two tubes are used it may be, apparently, passed from one to the other. In this case, however, I would suggest that round dises of wood be used in place of the plates, as the latter would be likely to get fractured in the act of bringing the tube down with sufficient force to dislodge the ball.

## CHAPTER XIII.

## TRICKS WITH HATS.

The tall silk hat has been the object of much wellmerited abuse. It is ugly, inconvenient, and expensive. As a set-off to so many vices, it has one virtue. No other headgear that could be devised would offer such facilities to the conjurer, who should devoutly pray that it may never get out of fashion. Even in the hands of a very moderate performer the familiar "chimney-pot" becomes a storehouse of surprises. To appreciate its full capacity, however, the reader should have witnessed the performance of Hartz, in whose hands the old and hackneyed trick of the Inexhaustible Hat becomes something approaching a miracle. Standing on an all but naked stage, the performer continues for more than twenty minutes to produce from a borrowed hat, in rapid succession, an endless variety of articles, including not only an avalanche of playing cards and a quantity of soft goods, such as silk handkerchiefs, ribbons, etc., but lighted lanterns of metal and glass, cigar-boxes, soda-water tumblers of various colors, silver goblets, champagne bottles, a large bird-cage with a living bird, a skeleton crinoline, and last, but not least, a human skull, the latter object rising spontaneously from the hat, placed on a small glass table at a distance from the performer. I do not propose to give instructions for imitating Hartz's performance, for it would be practically impossible to do so. I could give the dry bones of the trick, but unless by some mystic spell I could put Hartz himself into the reader's pantaloons, he would be as far as ever from being able to work it. I might as well endeavor to teach in writing Henry Irving's reading of Hamlet, or my young namesake's rendering of
some difficult pianoforte concerto. It is noteworthy that among the scores of professional conjurers who have witnessed Hartz's hat trick, and any one of whom could give pretty close guesses at his modus operandi, not one has ventured to imitate it.

> "None but himself can be his parallel."

The general principles of the trick are familiar to the merest tyro in conjuring. These are supplemented in some small degree by ingenious mechanical contrivances, but the main secret lies in the artistic way in which each word and gesture of the performer has been studied and combined, so that the production of each successive article, or group of articles, shall facilitate and cover the introduction of the next.

The Cannon-balls in the Hat.-The earliest and simplest form of this trick is limited to the production of a solid wooden globe, blacked to resemble a cannon-ball. The introduction of the ball into the hat is effected as follows: The ball, which has a hole of about two inches in depth by one in diameter bored in it towards its center, is placed on the servante of the performer's table in such manner that the hole above-mentioned shall slant upwards and outwards at an angle of about 45 degrees. To keep the ball steady, and to prevent its rolling off, some performers have a slight circular hollow scooped in the surface of the scrvante itself. A more convenient plan, however, is to use an india-rubber ring (such es is given to infants teething). This may be placed on any part of the servante, and makes a capital rest or bed for the ball. A bit of half-inch rope, with the ends joined so as to form a ring, will answer the same purpose.

When the performer desires to introduce the ball into the hat, which we will suppose to have been borrowed for the purpose of some previous trick just completed, he takes the hat with his thumb outside and his fingers inside the brim, and holds it up with its mouth towards the spectators, so as to show indirectly that it is empty (see Fig. 101). Carelessly lowering his hand, he brings the hat mouth downwards on the table, and, drawing it
towards him, slips the second finger into the hole in the ball (see Fig. 102), when the mere action of crooking the finger brings the ball into the hat. He then, still


Fig. 101.


Fig. 102.
holding the ball supported by the finger, walks away from the table towards the owner of the hat, with the apparent intention of returning it. Just before reaching him, however, he pretends to notice that it is somewhat heavy, and looking into it, says, "Dear me, sir, there is something rather peculiar about this hat. Are you aware that there is something in it?" The owner naturally professes ignorance of the fact; and the performer, after keeping the audience in suspense for a moment or two, turns the hat over, and lets the ball fall out upon the stage.

The performer may in some degree heighten the effect of the trick by making it appear that the ball is wedged very tightly in the hat, as the difficulty of introducing it becomes thereby presumably the greater. This is managed by holding the hat with both hands, as shown in Fig. 103, when the extended finger-tips will prevent the ball from falling as long as may be desired, however much the hat may be shaken.


Fig. 103.
The trick, as above described, is of very short duration. In order to lengthen, and at the same time to diversify it, a second ball is sometimes employed, of similar appearance, but of different construction. This
second ball (see Figs. 104, 105, the latter representing a section of the ball) is a strongly made hollow sphere of tin or zinc, with a circular opening of about three and a half inches across, closed by a sort of sliding door, a, also circular, working on two curved arms, $b b$, which move on two pivots, $c c$, at opposite sides of the ball on the inside. In this door is a hole an inch in diameter, answering the same purpose as the hole bored in the solid ball.


Figs. 104, 105.
The ball is filled beforehand with bonbons, small toys, or any other articles suitable for production. Thus "loaded," it is placed upon the servante, and introduced into the hat as above described. The performer gces through the ceremony of pretending to discover something in the hat, but does not, as in the last case, at once produce the ball. Slipping back the sliding door, he brings out, one by one, the articles contained in the ball, not hurriedly, but with deliberation, as he thereby produces the effect of greater quantity. Having emptied the ball, he again closes the circular slide, remarking that the hat is now quite empty. As a proof that it is so, he turns the hat mouth downwards as above directed, preventing the ball from falling with the tips of his fingers. Again he moves towards the owner, as if to return the hat, and again pretends to find something in it. This time, however, he does not allow the ball to fall on the ground, as, being hollow, it will not bear rough usage, but lifts it out with his left hand, taking care that the "door" slide shall be downwards, next his palm. Observing that he will have the ball packed up for the
owner of the hat to take home with him, he returns to his table and places it thereon. As the ball was in his left hand, the right is still holding the hat, and this gives him the opportunity to introduce the second (i.e., the solid) cannon-ball, which should be placed in readiness at the opposite corner of the servante. This also is produced in due course, and, being manifestly solid, naturally leads the audience to infer that the other was so also.

What are known as ' multiplying balls'' are frequently used in conjunction with the cannon-balls. These are cloth-covered balls of about two and a half inches in diameter. In-appearance they are solid, but in reality are mere outer coverings of cloth, kept distended by spiral skeletons of wire (see Fig. 106), and may be pressed quite flat, in which condition they occupy an exceedingly small space, though they immediately regain their


Fig. 106.
shape on being released. A large number of these may be packed in the hollow cannon-ball, and taken out, produce a pile extending far above the mouth of the hat, the cannon-ball lying hidden beneath them.

The hollow ball may also be filled with soft feathers, of which what will seem an incredible quantity when spread out may be compressed into a very small space. Feathers are, however, objectionable in a drawing-room, from the difficulty of collecting them from the carpet.

The "Hundred Goblets" from a Hat.-The goblets used for this purpose are of polished tin, about four inches in depth, and made without ornament or projection of any kind. Being all of the same size, and slight-
ly tapering, a large number of them may be fitted one within the other, and yet occupy little more space than a single one. The goblets thus packed are placed in a bag of black alpaca, just large enough to receive them, and concealed on the servarite, or in one of the profondes of the performer. When it is desired to introduce them into the hat, they are grasped in either hand, the back of the han l being turned towards the audience, and thus covering them. The hand is now carelessly placed in the hat, as though to take something out. Once introduced, the gotlets are produced one by one, and placed mouth downward on the table, their number giving an appearance of bulk which seems to exclude the possibility of their having been all contained within so small a space. Two or three parcels of goblets may be introduced successively, and brought out one by one, with little difficulty.

We may here mention a little expedient which will be found of great assistance where the performer desires to introduce into a hat a bundle of goblets (or any similar article) from either of his secret pockets. We will suppose that the article in question is in the right-hand profonde. Taking the empty hat in the opposite hand (the left), he stoops a little, and holding it down near the floor, with its mouth toward the company, gently moves it round and round in circles, gazing at it intently, as though anticipating some important result. This draws all eyes to the hat, and enables him to drop his right hand to the profonde, and bring out, under cover of the hand and wrist, the article to be introduced. Continuing the motion, he gradually brings the mouth of the hat upwards, so that the company can no longer see into it, and suddenly plunges his right hand into it, as though merely to take out the article or articles which he, in fact, thereby introduces. This may be repeated from the profonde on the opposite side; and thus two successive packets of articles may be produced without even going near the table.

A Dozen Babies from a Hat.-Among the various objects available for production may be enumerated dolls, of which a dozen, each eight or nine inches in height, may be produced from a borrowed hat. The dolls for this purpose are of colored muslin, stretched over a framework or skeleton of spiral wire, after the fashion of the multiplying balls (see Fig. 107), and may be compressed vertically to a thickness of about three-


Fig. 107.
quarters of an inch. A dozen of them may be packed within the hollow cannon-ball, described above, resuming their shape as soon as they are released.

The Magic Reticules.-This is one of the most modern hat tricks. The reticules, which are of cardboard covered with leather, are, when expanded, as shown in Fig. 108. They are, however, constructed so as to fold into a very small compass, in manner following: The ends, $a$ are only attached to the reticule at their lower edges (which form. a kind of leather hinge), and may be folded inwards flat upon the bottom of the reticule. (See Fig. 109.) The ends of the ribbon $b$, which forms the sling or handle, run freely through two holes $c c$ in the upper side of the reticule, and are attached to the ends $a a$ at the points $d d$. The ends being folded down,
as in Fig. 109, the reticule becomes a hollow oblong, open from end to end, as in Fig. 110. The angles, being made of soft leather, are flexible, and by pressing the sides in the direction indicated by the dotted lines (see Fig. 110), the reticule is brought into the condition shown


Fig. 108.


Fig. 109.


Fig. 110.
in Fig. 111, and, on being again folded, into that shown


Fig. 111.


Fig. 112.
in Fig. 112, in which condition it is little larger than a pocket-book. Half-a-dozen reticules thus folded, and packed in a bag of black alpaca, or held together by an india-rubber ring, form a small and compact parcel, and are easily introduced into the hat. The performer having got them out of the bag, has only to unfold each, so as to bring it into the condition shown in Fig. 111, when the mere act of lifting the reticule out of the bag by the ribbon $b$ raises the sides and ends, and restores it to the shape shown in Fig. 108.

The Drums from the Hat.-In this trick the performer generally begins by producing from the hat a number of the multiplying balls, as heretofore described. He next produces a miniature drum, prettily ornamented, then another, then a third and a fourth, each being a shade larger than its predecessor, and the last of such a size as barely to be containable within the hat.

With the reader's present knowledge, he will readily conjecture that the drums are so constructed as to fit one within the other, the multiplying balls being packed within the smallest of the four. One end of each drum is loose, and falls inward upon the opposite end, upon which it lies flat, thus giving space for the introduction of another drum a size smaller. Across the loose end, and parallel to it, is fixed a wire, forming a handle whereby the performer may lift the drum out of the hat, the act of doing so raising the end into its proper position, and a wire rim round the inside of each drum preventing the loose end being drawn out altogether. Each drum is taken out with the loose end upwards; but the performer, in placing it on the table, turns it over, thus bringing the solid end up. In default of this precaution, the loose end would fall back again to its old position, and so betray the secret. The drums are usually made oval, rather than round, as they are thus better suited to the shape of a hat.

The Birdcages from the Hat.-Not content with cannon-balls, drums, and ladies' reticules, the public of the present day requires that birdcages and living birds should be produced from an empty hat.

The birdcages used vary in their construction. Some are made to fit one within the other, after the fashion of the drums just described, save that the birdcages, unlike the drums, are lifted out by the solid and not the loose ends, which fall down of their own accord. Those in most general use, however, are of the shape shown in Fig. 113, and are alike in size, measuring about six inches in height, by five in breadth and depth. The bot-


Fig. 113.


Fig. 114.
tom is made to slide upwards on the upright wires which form the sides. When it is desired to prepare the cage for use, a canary is first placed therein, and the bottom


Fig. 115.
is then pushed up as far as it will go (see Fig. 114), the sides, which work on hinges at $a$ a $a$ a being folded one by one upon the bottom, the cage finally assuming the shape shown in Fig. 115. It is in this condition that the cages, generally three in number, are introduced into the hat, either from the servante or from inside the vest of the performer; and in the act of lifting out (which is done by the wire loop at top), the sides and bottom falling down, the cage again becomes as in Fig. 113.

The Cake (or Pudding) in the Hat.-This is an old and favorite hat trick. The necessary apparatus consists of two parts-first, a round tin pan a (see Fig. 116), four inches in depth, and tapering from five inches at its greatest to four and a half inches at its smallest diameter. It is open at each end, but is divided into two parts by a horizontal partition at about two-thirds of its depth. Second, a larger tin $b$, japanned to taste, five and a half inches in depth, and so shaped as to fit somewhat tightly over the smaller tin. In the larger end of the latter is placed a hot cake or pudding, and


Fig. 116.
in this condition it is placed on the servante of the table, projecting a little over the edge. The performer bor-
rows a hat, and, in passing behind his table, tips cake and tin together into it. The chances are that the tin will fall small end upwards (the opposite end being the heavier) ; but if not, the performer turns the tin, so as to bring it into that position. Placing the hat mouth upwards upon the table, he announces his intention of making a cake in it; for which purpose he takes, one by one, and mixes in the tin $b$ a quantity of flour, raisins, eggs, sugar, and the other ingredients for a cake, adding water enough to make the mixture into a thick batter. This he pours into the hat, holding the tin with both hands, at first high above it, but gradually bringing it lower and lower, till at last, as if draining the last drop of the mixture, he lowers the mouth of the tin right into the hat, and brings it well down over the smaller tin. On being again raised, it brings away within it the smaller tin and its liquid contents, the cake being left in the hat. He next proceeds to bake the cake by moving the hat backwards and forwards at a short distance over the flame of a candle, and, after a sufficient interval, exhibits the result, which is cut up and handed round to the company for their approval.

As the batter round the sides of $b$ is apt to cause $a$ to stick pretty tightly into it, a folding ring is generally fixed inside $a$, in order to facilitate its removal after the close of the trick.

The Welsh Rabbit.-This is a trick of a comic character, and in the hands of a spirited performer is sure to be received with applause, particularly by the younger members of the audience. Its effect is as follows: The performer brings in a fancifully decorated sauce-pan in one hand, and in the other a plate, with bread, cheese, pepper, etc. With these ingredients he proposes to make a Welsh Rabbit, and to give the audience, without extra charge, a lesson in cookery. Chopping the bread and cheese together in a burlesque fashion, and seasoning with pepper and salt to a degree which no palate short of a salamander's could possibly stand, he shovels all
into the saucepan, and clasps the lid on. For a moment he is at a loss for a fire, but this difficulty is quickly conquered. Borrowing a gentleman's hat, and a lady's pocket-handkerchief, he requests permission to use them for the purpose of the experiment. This is readily accorded, but the respective owners look on with consternation when the performer proceeds to set fire to the handkerchief, and, dropping it still blazing into the hat, to cook the Welsh Rabbit by moving the saucepan to and fro over the flames. Having done this for a minute or two, he extinguishes the flames by lowering the saucepan for a moment into the hat. Then again removing it, and taking off the lid, he brings it forward to the company, and exhibits, not the expected Welsh Rabbit, or "rarebit," but a genuine live rabbit, every vestige of the cheese and other ingredients having disappeared.

The secret of this ingenious trick lies mainly in the


Fig. 117.
construction of the saucepan, which consists of four parts, designated in the diagram (Fig. 117) by the letters $a, b, c$, and $d ; a$ is the lid, which has no specialty, save that the rim round it is rather deeper than usual; $b$ is a shallow trap or lining, of the same depth as the lid;
fitting easily within the top of the saucepan; $a$, on the contrary, fits tightly within $b ; c$ is the body of the saucepan, and has no specialty; $d$ is an outer sheet or covering, loosely fitting the lower part of the saucepan, and, like it, is japanned plain black, the upper part and lid being generally of an ornamental pattern. (For our own part, we much prefer either plain black or polished tin throughout, as savoring less of mechanism or preparation. The presence or absence of $d$ does not alter the general appearance of the saucepan, and cannot, therefore, be detected by the eye. It should be mentioned that $d$ is so mado that between its bottom and the bottom of the saucepan is a space of about half an inch in depth, and in this space, before the apparatus is brought forward, is placed a substitute handkerchief, sprinkled with a few drops of spirits of wine or eau de Cologne, to render it more inflammable; within the saucepan is placed a small live rabbit, after which $b$ is put in its place and pressed down.

The performer is now ready to begin the trick. He brings forward the sauce-pan, holding it as shown in Fig. 118 , in which position the pressure of the first and second fingers on $d$ prevents it falling off, as, being loose, it would otherwise do. Placing it on the table, he mixes the bread,


Fig. 118.
cheese, jtc., on the plate, and then pours all into the saucepan, where, of course, they fall into $b$. As $b$ is comparatively shallow, it is well to place the saucepan in some tolerably elevated situation, so that the spectators may not be able to see into it, or they may perceive that the bread, etc., do not fall to the bottom. The lid is next placed on the saucepan. The hat and handkerchief are borrowed, the latter, which is to serve as fuel, being dropped into the hat. The performer, as if bethinking himself of a possible difficulty, carelessly remarks, "We mustn't have the stove too small for the saucepan;'" and so saying, lifts the latter, as shown in Fig. 118, and lowers it for a moment into the hat, as though testing their relative sizes. In that moment, however, he relaxes the pressure of his fingers on $d$, and so leaves it within the hat, placing the saucepan on the table beside it. When he again takes out the (supposed) handkerchief and sets light to it, it is, of course, the substitute that is actually burnt, the genuine handkerchief meanwhile remaining hidden beneath $d$ in the crown. The effect of the flames rising from the hat, in which the audience cannot suppose any preparation, is very startling, and yet, unless the substitute handkerchief is unusually large, or the spirit has been applied with a too liberal hand, there is no real danger of injuring the hat. The performer moves about the saucepan above the blaze at such a distance as not to inconvenience the animal within, and, after a moment or two, brings the saucepan sharply down into the hat, for the ostensible purpose of extinguishing the flames, but in again lifting it out he brings with it $d$, and places all together on the table. Nothing is now left in the hat but the borrowed handkerchief, which may be restored in any manner which the performer's fancy may suggest. When the lid of the saucepan is removed, as it fits more tightly within $b$ than the latter fits within the saucepan, it naturally carries $b$ with it, thus causing the disappearance of the bread, cheese, etc., and revealing in its place the live rabbit.

Some fun may be created by selecting beforehand an
assistant from the juvenile portion of the audience, and dressing him up with a pocket-handkerchief round his head, and another by way of apron, to act as assistant cook.

A guinea-pig or small kitten may be substituted for the rabbit, the performer accounting for the wrong animal being produced by supposing that he must have made some mistake in mixing the ingredients.

Reverting to the subject of hat tricks generally, sundry new appliances have been devised for the purpose of production from hats. One of the most original is:

The Bundle of Firewood.
This is to all appearances an ordinary bundle of firewood. Sundry other articles (generally baby-linen, and a feeding-bottle half full of milk) are first produced, and followed by the "bundle," which, being of such a size as itself to completely fill the hat, renders the production of the other objects the more difficult of explanation. Where were they? for the hat, so thinks the innocent spectator, could not possibly contain both at the same time. Sooth to say, they were inside the bundle, which, in reality consists of a cylindrical box of pasteboard, round which the familiar sticks are placed in due order and kept in position by the orthocox piece


Fig. 119.
of string. The sticks of firewood are an inch longer than the height of the box, and accordingly project half an inch or so at top and bottom. The circular space thus left vacant is filled up by short ends of wood, glued on to the top and bottom. The top of the box is hinged so as to form a lid, after the manner shown in Fig. 119, and within it are packed the various articles to be produced. The suggested pretext for the presence of the bundle of wood in the hat is usually that it was intended for warming the milk in the feeding-bottle; and the owner of the hat is complimented on the completeness of his nursery arrangements.

The "bundle" may be placed on the servante, and "loaded" into the hat in the ordinary manner, one hand holding the hat, and the other introducing the bundle. A better plan, however, is to load it from the back of a chair. A wire pin, an inch in length, is inserted into the wood of the chair, pointing upwards at an angle of 45 degree or thereabouts, and on this the bundle is hung by means of a loop of string. The chair must of course be one with a solid back, or if otherwise, must be temporarily adapted for the purpose by throwing a piece of drapery over it, so as to mask the presence of the bundle.

To effect the "load" the performer, in a careless sort of way, drops the hand which holds the hat behind the chair, and draws the hat over the bundle, thereby lifting the latter off the pin which holds it. When the hat is again brought into view the bundle is within it, and may be produced at pleasure. The movement is not difficult, but some practice is necessary in order to perform it neatly. I need hardly remark that the performer must not look behind the chair, or the spectators will instantly suspect that something is there concealed. On the other hand, he must judge his distance accurately, or he will sweep the bundle onto the floor instead of into the hat.

A mechanical servante, which tips up like a gravelcart and tilts the load into the hat, may be had at some
of the conjuring depots, but it is more difficult to fix and remove than the wire pin, and I cannot see that there is any material advantage to be gained by its use.

The wire pin should not be ton thick, nor should it be driven nail fashion into the chair (unless indeed the latter be the performer's own property, in which case he can do as he pleases). The pin may consist of half a darning-needle, and if the needle hole be bored with a bradawl one size larger than the needle, the latter may be simply dropped into the hole, and removed as soon as it has served its purpose, without "paterfamilias" suspecting that his cherished mahogany has been maltreated, even to this nominal extent.

A Flower-Garden from a Hat.
This is a very pretty and effective finish to a hat trick. The performer, after producing sundry other objects, takes from the hat and throws on the stage or floor a number of little bouquets or tufts of flowers, some six or seven inches high. The flowers are thrown out in a careless, haphazard fashion, but instead of falling flat, as might naturally be expected, each bouquet plants itself, so to speak, as it falls, remaining fixed in the floor in an upright position until again gathered up by the performer or his assistant.

This pretty effect is produced in a very simple manner. The flowers are of the kind known as "feather"' flowers, which will bear a great deal of compression, but again expand freely as soon as they are released. The sprays of each bouquet are arranged round a stout central wire, at the bottom of which is a leaden bullet. Projecting from the under side of this bullet is a sharp steel point. As each bouquet is thrown out of the hat, the weight of the bullet ensures its falling right end downwards, and the force of the fall drives the sharp point into the flooring, and so makes the flower stand upright. If. the points are sharp and of good quality, they will fix themselves through baize or carpet as readily as into a naked floor.

I may here note that a large bouquet of flowers, on a different principle, has been arranged for production from a borrowed hat or handkerchief, preferably the latter. The flowers are in this case arranged on a wire framework, shaped as shown in Fig. 120. The hoop a a (which is covered with muslin or other soft material, to which the flowers are attached) is pivoted on the points $b b$, and may at pleasure be brought into the position shown in Fig. 121, in which position it is retained by a little catch on the stem $c$, though it flies back instantly


Fig. 120.


Fig. 121.
under the compulsion of a spring the moment each catch is released. When the top is folded down in the manner above described, the bouquet becomes nearly flat, in which condition it may be kept within the breast of the performer's coat without attracting observation. It is produced under the momentary cover of a hat or handkerchief, and the catch being simultaneously released, the bouquet resumes its normal condition, in which shape it seems impossible that it could have been concealed as above described, or indeed in any way, about the person of the performer.

A tolerably deep lace border around the honp disguises the nakedness of the framework, while adding practically nothing to the bulk of the bouquet when folded.

## The Animated Cigar.

Among the less known "hat" tricks, I may mention a little illusion of my own (now procurable at most of the conjuring depots), known as the "Animated" or "Dancing" Cigar, wherein an ordinary cigar is made to stand upright, balance itself, bow to right and left, etc., on the crown of a borrowed hat. The patter may run somewhat as follows:-
"I am about to show you a curious experiment in animal magnetism, for the purpose of which I must ask some gentleman to oblige me, in the first place, with the loan of a hat. Thank you. Now will some one else oblige me with a cigar? I am not going to smoke it-I am merely going to make it stand on end, and balance itself, on the crown of the hat.

The performer then balances the cigar on its point on the top of the hat, making it, at his command, sway from side to side, describe circles, dance and keep time with the music.
"You see the cigar keeps time in the most obliging way, but I feel that the power is beginning to fail. Will


Fig. 122.


Fig. 123.
the owner of the cigar take it from the hat himself, and see that it really is his own, and not a mechanical imitation? You will find it smoke all the better, sir, for having gone through this little experience."

The secret lics in the use of a very simple piece of apparatus; a little rod of ebony, or other hard wood, six inches long and five-sixteenths of an inch thick, with a little cup or thimble at the one end and a strong, sharp needle, an inch and a quarter in length, projecting from the other. (See Fig 122.) This is placed, needle downwards, in the left sleeve of the performer, and after the hat is borrowed is allowed to slip down into it. During the performer's first pretended endeavors to balance the cigar on the crown of the hat, he applies the needle (with the left hand, which holds the hat) to the center of the crown inside, and presses the needle through it. This, however, is done very gradually, so that only the extreme point shall pass through in the first instance. As soon as he sees the point emerge from the surface he covers it with the lower end of the cigar, and thrusts it home within the body of the cigar.

The hat may now be transferred from hand to hand, or tilted in any direction, but the cigar will still remain upright, its weight being counterbalanced by that of the wooden rod within. (See Fig. 123.) If the hat be moved round and round in circles, the rod sways from side to side and communicates a corresponding movement to the cigar. By inserting the middle finger of the hand which holds the hat into the thimble at the lower end of the rod, the cigar may be made to incline in any given direction, and so to bow to the company, etc.

When the owner of the cigar puts forth his hand to take back his property, the performer at the same moment withdraws the needle from below, and lets the little rod again drop into his sleeve, when both cigar and hat will of course stand any amount of examination.

The Wand Passed Through the Hat.
With his present knowledge the reader will at once infer that the desired effect is produced by means of a
dummy "end" corresponding in appearance with the wand in ordinary use, and armed with a needle-point after the manner described as to the cigar. Such indeed is usually the case, the one difference being that the wand is professedly pushed through from within the hat, the end being shown outside, moved from within by agitating the needle, and then withdrawn.

The appearance of the wand-end is as shown in Fig. 124, and its construction as exhibited in Fig. 125, a represents a solid wooden plug, to which, by a screw at


Fig. 124.
Fig. 125.
its upper end, is attached the cap $b b$. In the opposite end of $a$ is fixed a long needle-point, projecting two full inches. The cap, it will be observed, is considerably
larger in diameter than the plug, leaving a space onesixteenth of an inch, or thereabouts, between. This space is occupied by a brass tube, $c c$, japanned in imitation of ebony, and so regulated in point of size as to slip easily backwards and forwards over the plug. A little stop, $e$, working in a groove in $a$, prevents its being withdrawn too far. To the lower end of this tube are brazed two points, $d d$, each about three-quarters of an inch in length and bent round so as to form a segment of a spiral, like the points of a gun-screw. If the long needle-point be pressed well home through the top of a hat, and a halfturn be made in the direction of the points, these latter will penetrate the silk and attach the wand securely to the crown. The normal condition of the apparatus is as shown in Fig. 124, but by taking the cup $b b$ between the finger and thumb, and drawing it upwards, the wand may be elongated as shown in Fig. 125. By moving it gently up and down in this way, a complete illusion is produced. It seems impossible to question that the wand really moves up and down through the hat. After a few up-and-down movements from outside, the needle will work easily enough to allow of the wand being worked from within the hat, by pushing up and withdrawing the needle. A twist of the wand in the reverse direction to that which fixed it detaches it from the hat.

The end is made so as precisely to correspond in appearance with the ordinary wand, which latter must be in the hand that holds the hat (usually the left), as it is professedly thrust through from within. The greater part of its length may lie within the sleeve of the performer.

A little discretion should be exercised in the choice of the hat used, which should be one that has seen some service, in which case it will be little the worse for the experience. If a new and glossy hat be used, the points are apt to leave marks, which not only tell tales, but may not unreasonably be objected to by the proprietor. This, however, creates no practical difficulty, in view of the fact that the use of the "wand" is only a mere incident, and not a regular item of the programme. If
the hat borrowed for some other trick proves suitable, the wand business can be introduced; if not, it can be omitted.

The Magnetized Hat.
I take this trick next in order, as being the invention of the same gentleman (Mr. Collins) to whom I am indebted for the secret of the "penetrative wand."

The performer introduces the trick with a few remarks about magnetism, animal and otherwise, and by way of illustration borrows a hat, preferably a stiff lowcrowned felt. Taking it in the left hand, he rubs the fingers of the right hand on the left sleeve for a moment or two, in order "to develop the electric fluid." This done, he lays the hand flat on the crown of the hat, which is forthwith seen to adhere to it. He waves the hand about in various directions, but still the hat does


Fig. 126.
not fall. Finally, with a jerk, he throws the hat up in the air, catches it, and hands it back to the owner.

The secret lies in the use of a little appliance of tin or sheet brass, as illustrated in Fig. 126.

It consists of a plate, bent to fit the palm, and having its extremities turned up so as to form two clips or projections, the one, $a$, lying between the third and fourth fingers, and the other, $b$, just within the fork of the thumb, so that by a slight contraction of these a firm grip is obtained. Projecting from the surface of the plate are two needle-points, $c$ and $d ; c$, as will be seen, is slightly curved outwards; $d$ is straight.

This appliance is palmed beforehand, the performer taking care, when rubbing the right hand on the coat
sleeve as described, to rub the fingers only, so that the points may not hitch in the cloth. When the hand is applied to the crown of the hat, a gentle pressure in the right direction engages the hook $c$ in the hat. When (but not until) it is well home, $d$ is in turn thrust in and pressed home. The points can now only be withdrawn in the same manner, the second securing the first, and so long, therefore, as the uperformer keeps the hand in such position as to prevent a premature withdrawal of $d$, he can wave the hat about in any direction with perfect safety.

To detach it, he should turn the hand over so as to bring the hat crown downwards, and then steadying it for a moment with the left hand, withdraw first $d$ and then $c$ by successive half-turns of the wrist in opposite directions. The hat may then be thrown up in the air, and caught as above described. A folded newspaper may be "magnetized" in a similar manner.

## CHAPTER XIV.

## SECOND-SIGHT TRICKS.

The name of "second sight" is, as most people are aware, applied to the well-known illusion whereby an assistant, blindfolded and seated on the platform at a distance from the principal performer, is enabled to name and describe with tolerable precision, any object taken in hand by the operator. This is usually effected by means of what is called a "code,' the particular form of the question used conveying the necessary information to the "clairvoyant"' on the stage. The details of the system used vary with different performers, no two, perhaps, working precisely alike. To be really effective, the "code" must of necessity be very elaborate; indeed, performers who make a specialty of this particular business declare that their work is never done, the experience of almost every performance indicating some point in which the "code," however complete, may be still further developed. The most perfect system which has come under my own notice, is that of my friend Mr. Alfred Cooper, who, though but an amateur, surpasses the most finished professionals in the performance of this particular trick. Robert Heller himself, brilliant as his second-sight performance undoubtedly was, would in many particulars have found himself outdone by Mr. Cooper.

The secrets of Mr. Cooper's method I am not at liberty to divulge. The minutiae of Robert Heller's I do not know, but it may be interesting to the reader to know the broad lines of the system on which Heller's is said to have been founded, and thus far I am in a position to gratify his curiosity.

The first step is to learn the numerical places of the
letters of the alphabet, so that $A$ shall at once suggest $1, B 2, C 3, D 4$, and vice versa. The next is to commit to memory a list of phrases, each of which shall be equivalent to a given letter and number. Thus, "Come" may be the cue for $A$ and 1 , "Look" for $B$ and 2 , "Tell me"' for $C$ and 3, "Tell us"' or "Make haste" for $D$ and 4, "Well'" for $E$ and 5, 'Please"' for $F$ ' and 6 ; and so on through a range of similar expressions for each of the twenty-six letters of the alphabet. "There," may be the equivalent for 0 , and "I want to know'' for 100.

It will be seen that, by the aid of these equivalents, a given word can be spelt out to the clairvoyant. Thus, suppose a bead handed to the performer. "Look (B) well (E), come (A), tell us (D) what is this," would convey the required information. This expedient is actually employed now and then to convey the names of out-of-the-way articles, but for general use it would be far too cumbrous, and a shorter method is employed. The performer and his assistant both commit to memory a list of familiar articles in alphabetical order, and arranged in groups of three thus:

1. Account, album, almanac;
2. Anchor, apple, apron;
3. Awl, badge, bag;
4. Ball, banana, bead;
5. Bean, bell, belt;
6. Bill of exchange, bodkin, bonnet;
7. Book, memorandum-book, boot;
8. Bouquet, bouquet-holder, bottle;
9. Smelling-bottle, box, cap-box;
-and so on, up to about 120, giving a total of some 360 articles.

Suppose now that the performer says "Look at this," the clairvoyant, knowing that "Look" stands for 2, is made aware that the article in question is one of the second group; and no special indication to the contrary being given, declares boldly that it is the first article of that group, viz., an anchor. The introduction of the word "here" indicates that the second article of the
group is intended; and by the substitution of the word "that" for "this," that the third article of the group is in question. Thus, if the phrase had been, "Here, look at this," the reply would have been "It is an apple;' if the phrase had been, "Look at that,'' the answer would have been, "It is an apron." In the case we just now supposed of a "bead"' being offered: "What is that? make haste," would convey the desired answer; the words "make haste" indicating the fourth group, and the use of the word that showing that the object is the third item of such group.

The first thing that will probably strike the reader is that the acquirement of such a system must demand an almost supernatural memory. This is so far correct that a good memory, together with ready speech and unfailing presence of mind, is an indispensable requisite for the effective performance of the trick; but the majority of second-sight performers do not trust to natural memory alone, but use some system of artificial memory. A disciple of Stokes or Pick, for instance, would not find the least difficulty in memorizing even such a formidable list of words as we have indicated, with the proper place of each in the list; though some practice would still be necessary before the required word would be producible with sufficient rapidity for the effective working of the trick.

Reverting te the subject of the "code," we may pause to note an objection which may, not improbably, occur to some of our readers. "But surely," it may be said, "I have seen articles handed up to the conjurer, who simply asked, 'and this?' 'and this?' 'and this?' when each article was correctly named. What becomes of the theory of a 'code' in such a case?" The observation is just, but if the supposed objector will further tax his memory, he will find that the articles in question were not in this case handed $u p$ to the conjurer, but merely touched or indicated by him in quick succession. The naming of these depends upon a different expedient. The articles are, such as are sure to be found in any
audience, and are committed to memory by both parties in a given order. Thus-

1. A lady's glove.
2. An eye-glass.
3. A gentleman's whiskers.
4. A programme.
5. A handkerchief.
6. A gentleman's coat.
7. A lady's sleeve.
8. The back of a chair.
9. A watch chain.
10. A gentleman's head.

The performer conveys to the clairvoyant, by some agreed phrase, as "What is this that I am pointing at?" the intimation that he is about to commence this pre-arranged list; the words, "And this?" conveying to the clairvoyant that he is required to name the next article in succession. Should, par exception, any article of the list be not visible among the audience, the omission need create no difficulty. "And this, quick!" will convey to the clairvoyant that he or she is to skip one item, and name the next.
Sometimes even this small amount of speaking is dispensed with, and the performer merely strikes a bell by way of query, when the assistant names the article pointed out. This again is worked by means of a prearranged list of articles sure to be fund among the audience.
Another auxiliary arrangement is known as the "hat fake." The performer or his assistant collects sundry small articles from the audience in a borrowed hat. This done, he takes out two or three of them in succession, when they are described with the utmost minuteness by the clairvoyant, the performer only here and there interposing a word. The trick here depends on the fact that the performer, when making his first dip into the hat, introduces a handful of small articles (his own property), with every detail of which the assistant is famil-
iar. He takes these out, one by one, apparently haphazard, but really in a pre-arranged order, when it is, of course, a very easy matter for the clairvoyant to describe each article. By the time half-a-dozen or so have been described, the audience are quite ready to pass to something new, and are not at all likely to insist on a description of the remainder of the collected articles.

The above, be it remembered, is a mere outline. The system described would require very considerable modification before it could be regarded as good enough for professional use. One of the first criticisms that will suggest itself to a reflective reader will be that "spelling", by the substitution of whole words or phrases for letters is a very clumsy expedient. A better system, where spelling is absolutely necessary, is to spell the name by means of the initials of the sentence. 'This expedient, however, if nakedly used, would be very liable to detection; and to render it a little less obvious, it is customary to use, not the actual initials, but those next following in the alphabet; B for $A, C$ for $B, D$ for $C$, and so on. Another improvement is the subdivision of the single list of objects into a number of separate lists, classified into regular categories, e. g., flowers, coins, articles of clothing, cards, trinkets, etc., the form of the question or some agreed catch-word indicating to the clairvoyant which particular list is referred to, and its first word the particular number lat which it stands in such list.

The words used as indicating numbers or place in list are, of course, purely conventional. A series in frequent use for indicating the numbers one to ten is as follows:

| And signifies | 1 |  |  |
| :--- | ---: | :---: | :---: |
| Do | (in French) | Un. |  |
| D | , | Deux. |  |
| Try | 3 | , | Trois. |
| Can | 4 | ,, | Quatre. |
| If | 5 | , | Cinq. |
| See | 6 | , | Six. |
| Let | 7 | $"$, | Sept. |
| Wait | 8 | $"$, | Huit. |
| Enough | 9 | , | Neuf. |

It will be seen that this list is mnemonically arranged, the indicating word having in most cases some little affinity of sound with the French equivalent for the particular number. The strain on the memory is in any case very great, and anything that tends to lighten it is gladly welcomed. On the other hand, the fact that a person has himself compiled a particular list, or invented a particular system, is marked assistance in committing it to memory ; and hence, doubtless, the fact, that of the many public performers of the second-sight trick, there are, perhaps, no two who work alike in all particulars. Another man's second-sight system may be fairly likened to a second-hand suit of clothes. It is pretty sure to require a good deal of alteration before it will sit comfortably on the new possessor.

Few amateurs would have the courage, or could spare the time, to master the second-sight trick, but there are many good tricks of a kindred nature, which do not demand the same amount of self-sacrifice.

Among these may be named that of :

## Reading Biandfolded.

The supposed clairvoyant, usually a lady, is seated with a small table before her. The performer distributes a number of blank cards among the spectators, who are invited to write thereon words or sentences in pencil. The cards, when written on, are collected in an envelope, and handed to the performer, who meanwhile has blindfolded the clairvoyant, but in such a manner that though she cannot see through the bandages, she can get a sly downward peep at the table in front of her. Taking one of the cards from the envelope, he holds it in front of her forhead, close against the bandage. After a moment's hesitation she reads the name inscribed thereon, say, "Oliver Cromwell." Another card is taken in like manner, the one first being used thrown carelessly on the table; and so on through the whole series of cards.

The secret lies in the fact that that name "Oliver Cromwell,'s stated to be on the first card, was not there
at all; but is, in fact, a bogus name agreed on beforehand. The real inscription on the card was, we will say, 'Julius Cæsar;'' but the assertion of the clairvoyant is not tested, and nobody can be sure that his neighbor may not have written "Oliver Cromwell," so the answer passes muster. When the card has been professedly "read," the performer throws it with apparent carelessness on the table, but within the radius of the downward glance of the clairvoyant. She notes the name on it, and gives that name as being the one on the second card, and so on throughout. To complete the trick, and avoid accident, the performer should be provided with a card of his own, bearing the name "Oliver Cromwell." This card is taken, as if from the envelope, and held by way of finish; the clairvoyant reading, as if inscribed on it, the name appearing on the card last laid on the table. The tale is then complete.

The same expedient, in a more artistie form, is employed in the trick next following, with which Dr. Lynn made a great success at the Egyptian Hall some years ago.

## Dr. Lynn's Second-Sight Trick.

A number of small slips of paper were handed to members of the audience, each one being invited to write on his slip the name of some person deceased. Much stress was laid on this qualification, the idea being, no doubt, that a genuine dead person would be more in touch with the "spirits" who were supposed to prompt the performer. The slips of paper, thus inscribed, were folded up, and placed in a hat. The performer, taking one of them, handed it to a spectator, with a request that he would open and examine it; he, himself, meanwhile, in order not to he suspected of peeping, turning his back on the company, and walking up the stage. Presently he turned round, and after a due amount of hesitation, deciphering first the initial, and then other letters piecemeal, read out the complete name. A second slip was taken from the hat, handed to another spectator, and
deciphered in like manner; and so on, till some four or five slips had been duly read. When this point had been reached, the performer, putting his hand in the hat, took out a handful of the folded papers, and invited a spectator to choose any one of them. The chosen paper, still folded, was laid on the performer's arm, outside the coat-sleeve, and the spectator was invited to breathe softly upon it. The paper was then unfolded, and the name upon it, say, "Charles Dickens," was publicly stated. The performer bared his arm, and on the spot where the paper had rested appeared, in blood-red letters, the same name.

Few tricks have produced, in their time, a greater sensation. Victor Hugo, witnessing it, was persuaded that it was the outcome of some new and mysterious principle in nature, and gave the ingenious exhibitor a capital advertisement by declaring that his performance "demanded the attention of science."

And yet the explanation of the supposed mystery is almost absurdly simple. The performer has in a pochette (say) four folded papers, each bearing the name "Charles Dickens," and the same name is written in red ink or aniline dye upon his arm. A fifth paper, bearing the name of some other deceased celebrity, say "Lord Beaconsfield," is concealed in his palm. Some ten on twelve blank papers are handed out to the audience, and, when each has been duly written on, a spectator is asked to collect them in a borrowed hat. So far nothing could be fairer; but when the performer presently dips his hand into the hat, and taking one of the papers, hands it (apparently) to a spectator for safe keeping, he in reality retains the paper he has taken, and gives instead his own paper; which, as we have seen, bears the name "Lord Beaconsfield." While this paper is being opened, be discreetly turns his back and moves a few steps away, meanwhile quietly opening the paper he has abstracted (which bears, we will suppose, the name of 'Napoleon Bonaparte'), noting the contents, and refolding it. He now proceeds to read out, simulating
more or less difficulty, the name on the paper held by the spectator: "Lord Beaconsfield." This being found correct, he again dips his hand in the hat, takes out another paper, and hands, not such paper, but the one bearing the name "Napoleon Bonaparte," to a second spectator. This he repeats as often as he thinks fit; "reading", each time the paper he has just examined; and meanwhile taking a quiet peep at a new one.

When he considers that the spectators have had enough of this phase of the trick, he remarks that he will now show them a still more striking method of ascertaining the concealed name. During his last journey up the stage, which he makes empty-handed, he has got into his hand, and palmed, the four papers with the name "Charles Dickens." Dipping his hand once more into the hat, he brings out these four papers (which the spectators naturally take to be some of those inscribed by themselves), and throws out the remainder upon the floor or table. Placing the four he has retained upon the crown of the hat, he asks some one to choose one of them, and throws the rest carelessly aside; then, placing the paper on his arm as above described, he in due course shows that the name thereon has by some occult means been reproduced on his arm.

In the trick as above described, the arm is not, and cannot be shown beforehand; a weak point, for the omission tends to suggest the true explanation, viz. : that the name was there throughout, and that the final choice of a paper with the corresponding name was somehow "forced" by the conjurer. It is a great addition to be able to show the arm free from writing beforehand, and this may be effected by one or two methods. The first is to write the name with liquor potasse (which dries without leaving any visible mark), and after showing the arm and in the act of pulling the sleeve down again to dab it with a pad wetted with tincture of turmeric. The use of this re-agent brings out the writing in a deep red.

Another plan is to write the name with glycerine, removing any surplus moisture by dabbing lightly with
blotting paper. The folded paper is in this case first opened and read by the company, then burnt, and the ashes rubbed lightly on the arm. The ashes adhering to the glycerine bring out the name in black letters, somewhat smudgy, but perfectly legible.

There is some risk of a little contretemps occurring in the performance of the trick as above described, viz. : a cantankerous spectator, suspecting the modus operandi, may enquire audibly, Who wrote the name first given? As this name was not written by any one of the audience, no one is likely to lay claim to it, and the general silence will be rather embarrassing to the performer. This risk may be avoided by proceeding as follows. Let the performer collect the first two or three papers himself, receiving them in the right hand, and thence dropping them into the hat, held in the left. After two or three have been dropped in as above, he makes believe to drop in the one next received, but in reality palms it. This done, he passes on the hat, and leaves the remaining slips to be collected by the spectators themselves. While this is in progress, he will have ample opportunity to read what is on the paper in his hand, and he can then use this in place of the "dummy" in the other form of the trick, with the cheering certainty that. if challenged, it will in due course be claimed by some member of the company.

A later version of the same trick is denominated by Dr. Lynn:

## The Thinkophonf.

The performer invites taree gentlemen, who we will distinguish as $\mathrm{A}, \mathrm{B}$, and C , to assist him on the platform. When they are duly seated, a piece of blank paper is handed to A , and an open envelope to B . A is invited to think of some person, living or dead at his discretion. When he declares that he has done so, the performer places the ladle end of a contrivance which he calls his "thinkophone"" on A's head, and applying his own ear to the opposite end, declares that he is able by that means-
to divine (in fact he already knows) what name the gentleman has thought of. In order, however, to prove that there is no collusion (or for any other colorable reason), he asks $A$ to write in pencil the name he has thought of, and to fold the paper in four. The performer receives it in the ladle, and therewith hands it (without changing) to C , who is invited to look at the name, refold and replace it. It is then handed, still in the ladle, to $B$, with a request that he will place it in the envelope which he holds. At this point, however, it is "changed" for another folded paper, of similar appearance, with which the ladle was "loaded"' beforehand. While the substitute (which B is not invited to look at) is being placed in the envelope, the performer gets the genuine paper from the ladle into his hand. He puts the ladle aside, and begins reflectively to walk up and down the stage, now and then putting a question to $A$, such as, "Is the person whose name you have written living, or dead?'"_"A gentleman or a lady?".-_"A relative, or a stranger in blood?" and so on. Meanwhile, he opens and reads the paper in his palm, and after a little more by-play, declares that the name is So-and-so. He asks $C$ whether that was the name he saw on the paper, and on receiving a reply in the affirmative, tells $B$ to take the paper out of the envelope, and hand it back to A. B breaks open the envelope accordingly, but the performer stops him the moment he has done so, and asks him to hold up the folded paper in view of the audience, while he explains "how it's done." This is stated to be by "second sight," the performer explaining the meaning of the term as follows: "When this gentleman (A) writes the name, he sees it. That's first sight! Then I tell you what it is. And now I seize it, and that's second sight!"

At the words "I seize it," he suits the action to the word, and forthwith hands the paper to $A$, but in so doing changes it for the original paper, which remained in his possession.

The Box of Numbers.
This is a revival, in an improved form, of a trick which was familiar to our great-grandfathers. A little oblong box contains four wooden or cardboard slabs, exactly fitting it. Each of these bears a numeral, thusThe length and width of the box are such that it has exactly room for the four slabs. A rebate on the under


Fig. 127.
side of each block, corresponding with a fillet extending along the interior of the box, ensures that no block can be inserted in any position, save with the number "right side up;" but the four can be inserted in any order at pleasure, allowing of four-and-twenty different combinations.

The box is handed to some member of the company, with a request that he will arrange the blocks therein in any order he thinks fit. Meanwhile, a little tube of brass or pasteboard, about 1 inch long by $1 \frac{1}{4}$ in diameter, is handed for examination. Sometimes this tube has a lens at one end, after the manner of a watchmaker's eye-glass;, sometimes it is open from end to end, and sometimes closed. Whichever be the precise pattern adopted, the result is the same. The box may be locked, tied, and sealed, but the performer, using the little tube as an eye-glass, and applying it at regular intervals along the lid, reads off with unfailing accuracy the number formed by the four blocks within; and this may be repeated any number of times.

The secret of the trick lies in an ingenious application of the familiar scientific principle that the needle of a magnetic compass, when superposed on a magnet of greater power, will place itself parallel to such larger magnet, but with its poles in the reverse direction, $i$. e.,
north on south and vice versa. Each of the four blocks has imbedded in it a minute bar-magnet (consisting of an inch of watch-spring strongly magnetized) but in a different position. Thus-as shown by Fig. 128.

Elock No. 1, may have its bar thus,


Fig. 128.
The little tube which was handed for examination is deftly "chạnged" by the performer for another, in which the place of the lens is occupied by a small magnetic compass. This being applied (outside the lid of the box) over the position of either of the blocks, the needle will at once point in the direction of the south pole of the concealed bar. Thus, if it point vertically upward, the performer will know that the block beneath is the 1 . If it point to the right, the 2 ; if downward, the 3 ; if to the left, the 4 . It is therefore an easy matter to state the number formed by the concealed blocks. When the trick is over, the unprepared tube is again substituted, and the whole handed for examination.

There is a more elaborate form of the trick, now procurable at most conjuring depots, in which two boxes are used, one within the other. In this case no eye-glass or other visible appliance is employed to discover the arrangement of the blocks, but the performer nevertheless has only to take the box in his hands in order to read off the number within.

The secret in this case lies in the construction of the lid of the outer box, a portion of which is made to slide back, revealing a row of miniature compasses, one over each block. The apparatus in this form is best adapted for stage use, the numbers being noted by the performer during his transit from the audience to his table. Having acquired the desired information, he places the box on the table, and after a due amount of by-play, proceeds to read off the numbers in due course. The use of the external box is a decided improvement, as it adds to the apparent difficulty, while really facilitating the performance of the trick.

## CHAPTER XV.

## MISCELLANEOUS TRICKS.

The Vanishing Gloves.-This is a capital trick with which to commence an entertainment; when coming, as it should do, unannounced, and before the performance proper has commenced, it has an air of improvisation which greatly enhances its effect, and at once awakens the attention of the audience.

The performer comes forward in full evening dress. While saying a few words by way of introduction to his entertainment, he begins to take off his gloves, commencing with that on his right hand. As soon as it is fairly off, he takes it in his right hand, waves the hand with a careless gesture, and the glove is gone. He begins to take off the other, walking as he does so behind his table, whereon his wand is laid. The left hand glove being removed, is rolled up into a ball, and transferred from the right hand to the left, which is immediately closed. The right hand picks up the wand, and with it touches the left, which being slowly opened, the second glove is found to have also disappeared.

The disappearance of the first glove is effected by means of a piece of cord elastic, attached to the back of the waistcoat, and thence passing down the sleeve. This should be of such a length as to allow the glove to be drawn down and put on the hand, and yet to pull it smartly up the sleeve and out of sight when released. It is desirable to have a hem round the wrist of the glove, and to pass the elastic through this like the cord of a bag, as it thereby draws the wrist portion of the glove together, and causes it to offer less hindrance to its passage up the sleeve. Upon taking off the glove, the performer retains it in his hand, and lets it go when
he pleases. He must, however, take care to straighten his arm before letting it slip, as otherwise the elastic will remain comparatively slack, and the glove will, instead of disappearing with a flash, dangle ignominiously from the coat-cuff.

The left-hand glove is got rid of by palming. The performer, standing behind his table as already mentioned, rolling the glove between his hands, and quickly twisting the fingers inside, so as to bring it into more manageable form, pretends to place it into his left hand, but really palms it in his right. He now lowers the right hand to pick up his wand, and as the hand reaches the table, drops the glove on the servante. He now touches the left hand with the wand, in due course opening the hand and showing that the glove has departed.

Some performers cause both gloves to vanish by means of elastic, one up the right sleeve, the other up the left; but in doing so they offend against one of the cardinal precepts of the art, viz. : never to perform the same trick twice in succession by the same means. The spectators having seen the manner of the first disappearance, are all on the alert, and are not unlikely on the second occasion to guess the means employed. If, on the other hand, the performer adopts the plan indicated above, the two modes of producing the effect being different, each renders it more difficult to discover the secret of the other.

The Rice and Orange Trick.-In this feat rice and an orange are made to change places, but by wholly different means from those last described.

The apparatus in this case consists of three japanned tin cones, about ten inches in height by five at the base, and each having a brass knob at the top, and an ornamental vase of tin or zinc, standing about the same height as the cones, and having a simple metal cover, or top. Of the cones (all of which are open at the bottom), two are hollow throughout, but the third has a flap or
moveable partition half-way down, inclosing the upper half of the internal space. This flap works on a hinge, and is kept shut by a little catch, which is withdrawn by pressure on a little button outside the cone, when the flap drops down and lets fall whatever has been placed in the enclosed space (see Fig. 129). The cone is prepared for the trick by filling the space with rice and closing the flap; and the three cones are then placed in a row on the performer's table, the prepared one being in the middle. The vase (see Fig. 130) is constructed as follows: Its depth inside is less by about an inch than its depth outside, leaving, therefore, between its true and false bottoms an empty space, a. A circular hole is cut in the inner or false bottom, but this hole, in the normal condition of the vase, is kept closed by a circular dise of metal, $b$, exactly fitting it.


Fig. 129.


Fig. 130.

This dise is soldered upon an upright wire rod, passing through the foot of the apparatus, and terminating in another disc, $c$, somewhat smaller in size. Round this rod is a spiral spring, whose action tends to press it down, and thereby to keep the dise or valve normally
closed, though it rises, and thereby opens the valve (as shown by the dotted lines in the figure) whenever upward pressure is applied to $c$. The face of the upper disc, $b$, is slightly concave, corresponding with the rest of the interior of the vase. The vase is prepared for the trick by placing an orange in it, and in this condition it is brought forward and placed on the table by the performer or his assistant. A small paper bag full of rice is brought in at the same time, and completes the preparations.

With this introduction, we proceed to describe the trick as worked by Herrman.

The performer begins by borrowing two hats, and placing them one on the other, the mouths together, on a chair or table. He then (by palming) produces an orange from the hair or whiskers of a spectator, and places this on another table. He next brings forward and exhibits the vase, filling it as he advances with rice from the paper bag, and thus concealing the orange which is already placed therein. He calls attention to the genuineness of the rice and the simplicity of the cover, and finally putting on the latter, places the vase on the ground, or elsewhere, in view of the audience. He pretends a momentary hesitation as to where to place it, and in the slight interval during which he is making up his mind he presses up the button within the foot. This opens the valve, allowing the rice to escape into the space $a$, and leaving the orange again uncovered. The audience is, of course, unaware that such a change has taken place.

Leaving the vase for the moment, he requests the audience to choose one or other of the three cones on the table. The choice almost always falls on the middle one (which, it will be remembered, contains the concealed rice). This he places on the top of the upper hat. He next asks the audience to select one or other of the remaining cones, and places this over the orange upon the table, showing by rattling his wand within it that
it is hollow throughout, and, if desired, handing round the remaining one for inspection.

At this point we hasten to anticipate an objection which will probably occur to the reader. We have said that the spectators, when called upon to choose one of the three cones, some one of them almost always selects the middle one, and we have proceeded on the assumption that he will do so. "But suppose," says the acute reader, "that he does not choose the middle one, but selects one of the end ones; the trick is spoilt, as neither of the others will produce the rice." By no means, 0 acute reader! If we had requested the spectator to indicate which of the cones should be placed upon the hat, there might have been a little difficulty, no doubt; but we did nothing of the kind. We merely asked him to choose one cf the cones. If the first choice falls on one of the end ones, we hand it round for examination, and finally place it over the orange. Then, standing behind the table, we ask the audience to make a choice between the two remaining cones, right or left. Whichever is chosen, we are safe; because the right of the audience is our left, and vice versa, so that by taking any reply whatsoever in the sense which suits our purpose we are certain to be right. We, therefore, in any case, take the cone containing the rice as being the one designated, and place this on the hat, sending round the other for inspection. As the spectators have, to all appearances, been allowed perfect freedom of choice, and have actually examined two out of the three cones, they are very unlikely to suspect any preparation about the remaining one.

The trick is now all but complete. Once more the performer raises the cone placed on the hat, to show that there is nothing underneath it; and as he replaces it presses the button, thereby letting the flap fall, and the rice pour out upon the hat, though it remains still concealed by the cone. He next lifts up the cone under which is the orange, and holding the latter up, replaces it, but in again covering it with the cone, makes a feint of removing and slipping it into his pocket. Then no-
ticing, or pretending to notice, a murmur on the part of the company, he says, "Oh, you think I took away the orange, but I assure you I did not." The company being still incredulous, he again lifts the cone and shows the orange. "Here it is, you see; but as you are so suspicious, I won't use the cover at all, but will leave the orange here in full view on the table." He again lays the orange on the table, but this time on what is called a "wrist trap." Leaving it for the moment, he advances to the vase, and holding his hands together cupfashion over it, but without touching it, he says, "I take out the rice, so, and pass it under this cover" (walking towards the cone on the hat, and making a motion of passing something into it). "Let us see whether it has passed." He raises the cover, and the rice is seen. "Perhaps you think, as you did not see it, that I did not actually pass the rice from the vase to the cover. At any rate, you will not be able to say the same about the orange. I take it up, before your eyes, so!" He places his hands round it on the table, and at the same moment presses the lever of the trap, which opens, and lets it fall through into the table, closing again instantly. Keeping his hands together, as though containing the orange, he advances to the vase, and holding his hands over it, says, "Here is the orange which has not left your sight even for a single moment. I gently press it, so" (bringing the hands closer and closer together) "and make it smaller and smaller, till it is reduced to an invisible powder, in which state it passes into the vase." He separates his hands, and shows them empty, and then opening the vase, rolls out the orange, and shows the vase empty, all the rice having disappeared.

The Drawer-Box.-This is a piece of apparatus of very frequent use in the magic art. In appearance it is an ordinary drawer, with an outer box or case of walnut or mahogany (see Fig. 131), and is made of various dimensions, according to the size of the articles with
which it is intended to be used, and which may range from a pack of cards to a live rabbit. Its use is to produce or to cause the disappearance of a given article; the drawer providing for an appearance of being full or ${ }^{-}$mpty at pleasure.


Fig. 131.


Fig. 132.

The first step towards the comprehension of the apparatus will be to completely take out the drawer, which, however, even when removed, does not at first sight indicate any specialty. On a closer examination, it will be found that the drawer is in reality double (see Fig. 132), consisting of two parts, $a$ and $b$, the latter sliding backwards and forwards freely within the former, which is, in fact, a mere case or shell, open at one end. If any object, suppose an orange, be placed in $b$, and $a$ and $b$ together be placed in the outer case, it is obvious that, upon drawing out $a, b$ will come with it, and the orange will be seen; but if $b$ be held back, $a$ will be drawn out alone, and the apparatus will be apparently empty. For the means of retaining $a$ at pleasure, it will be necessary to examine the outer case, which will be found to have a groove or mortice cut in its under surface (see Fig. 133), along which lies a spring or tongue of wood, fixed by a screw at one end, the other, or free end, being provided with a catch or stud $c$, which,
upon pressure, is forced through an opening in the bottom of the outer case, and made to sink into a little hole or notch in the bottom of $b$, being again withdrawn by the action of the spring as soon as the preseure is


Fig. 133.
removed. The bottom of the outer case is covered with velvet, ostensibly as a finish, but really to conceal the wooden tongue. When it is desired to draw out $a$ without $b$, the apparatus is held as shown in Fig. 133, and a gentle pressure applied by the finger through the velvet upon the free end of the wooden tongue, thus forcing the catch upwards and keeping $b$ back. If $a$ be drawn out without this pressure, $b$ will come with it. The upper edge of $a$ is turned over all round, so that a casual observer is not likely to detect any difference in the thickness of the sides of the drawer, whether it is drawn out with or without its inner casing.

Some drawer-boxes have a different arrangement for holding back the inner drawer, consisting of a little wire bolt lying loosely in a cylindrical cavity in the hinder end of $b$, corresponding with a similar cavity in the side of the outer case. As long as the drawer-box is kept in its normal position, this pin offers no obstacle to the withdrawal of $b$ with $a$; but if the box be turned over on the side in which is the bolt, the latter drops partially into the hole in the outer case, thus bolting $b$ to it, until, br again turning over the apparatus, the bolt is made to
drop back again into its original position. The arrangement is rather difficult to explain in writing, but will become quite clear upon an examination of Figs. 134 and 135 , both representing a section of the hinder end of the drawer-box, the one in its upright and the one in its turned-over position. The necessary turning over of the box is plausibly accounted for by the performer's desire that the audience shall, for greater fairness, have a full view of the top of the apparatus.


Fig. 134.


Fig. 135.

There is an ingenious addition sometimes found in drawer-boxes of French make, whereby $b$ may be at pleasure bolted to $a$, and the two may thus be handed for examination, with little chance of their secret being detected. The bolting and unbolting are effected by a slight movement up or down of the knob in front, there-


Thig. 136.


Fig. 137.
by raising or depressing a kind of hook of bent tin, working in the thickness of the front of $a$. Fig 136 shows this hook in its raised or unhooked position, and Fig. 137 in its depressed or hooked position.

The drawer-box, as above described, is available to produce or disappear, but not to change articles. With a slight modification, however, it may be made available for changing also. The inner drawer $b$ is in this case made only half the depth of $a$, or even less; and thus, when closed, there is left between the bottom of $b$ and that of $a$ a considerable space, so that $a$ and $b$ may in this case each be made to hold a given object, and an apparent transformation may be effected. Thus, for instance, $b$ may be filled with bran, and any small article, such as a borrowed pocket-handkerchief, be placed in $a$. The drawer is first pulled out with $b$, and shown filled to the brim with bran; but on being closed and again opened (without $b$ ), the bran is apparently transformed into the handkerchief.

Another modification of the drawer-box is known as
The Changing Ladle.-This is a piece of apparatus designed for secretly obtaining possession of a chosen card or piece of writing. The bowl, so to speak, of the ladle is in the form of a segment of a cylinder (see Fig. 138), the size of its opening being about four inches by two and a half, and its depth three inches. It is made of tin, with a thin, cylindrical handle. The edges of the bowl are turned inwards all round to the extent of about a sixteenth of an inch, thereby serving to disguise a movable slab of tin, $a$, which moves backwards and forwards like the leaf of a book within the ladle, working upon a hinge at its lower edge. This is made to work backwards and forwards by a wire rod passing through the whole length of the handle and terminating in a little knob or cap at its outer end. The normal position of $a$ is to lie against the inner or handle side of the bowl (see Fig. 139), being retained in that position by the operation of a spiral spring in the handle, which draws
the wire back. If, however, presure be applied to the knob or cap at the end of the handle, the wire is forced downwards, thereby bringing the movable leaf a against the outer side of the bowl, as shown in Fig. 140.

There are various modes in which the changing ladle may be made useful. For example, it may be used to burn and restore a card. For this purpose, the ladle is prepared by placing in it beforehand any indifferent card of similar pattern to the pack in use, and is in this condition placed on the performer's table, in such manner that the spectators may not observe that there is already a card in it. The performer then comes forward and hands to one of the company a pack of cards, with a request that he will select any one he pleases. While


Figs. 138, 139, 140.
he is making his selection, the performer or his assistant places on the table and sets fire to some spirits of wine on a bowl or plate. A card having been chosen, the performer requests the drawer to return it to him, and, in order to preclude the apparent possibility of any exchange or sleight-of-hand, volunteers to receive it at arm's length in the ladle, which he brings forward for that purpose, holding it by the extreme end of the handle, and pressing with his palm the knob at the top, thereby bringing the movable leaf into the position shown in Fig.

140, with the card already in it pressed flat against the outer, side of the bowl, and thus completely hidden. The chosen card being placed in the ladle, the performer, in returning to his table, relaxes the pressure of his palm, thereby bringing the movable leaf back into the position of Fig. 139, releasing the dummy card, and concealing that chosen against the inner side of the bowl. He then drops apparently the chosen, but really the substitute, card into the flames, taking care as he does so not to turn the face of the card toward the audience. The ladle, with the genuine card in it, is carried off by the assistant as having served its purpose, and the chosen card is subsequently restored after any fashion which the fancy of the operator may dictate.

The ladle may also be used to apparently burn and restore a paper on which one of the company has written any words or figures. In this case a blank half-sheet of note-paper, folded in four, is beforehand placed in the ladle, and a piece of paper folded in the same way is handed to one of the audience, with a request that he will write what he pleases upon it, again fold it, and place it in the ladle. It is then either apparently burnt (as in the case of the card) or placed in some other apparatus, the operator making a great point of the fact that he does not touch the paper. As the genuine paper remains in the ladle, it is, of course, very easy for the performer to ascertain what is written upon it, and having displayed his knowledge, to ultimately reproduce the paper under any circumstances which he thinks fit. Sometimes the trick is varied by requesting a spectator to write a question upon the paper, which is subsequently reproduced with an appropriate answer written beneath the question.

The Inexhaustible Bottle.-The inexhaustible bottle, though in appearance an ordinary glass bottle, is in reality of tin, japanned black. Internally it is divided into three, four, or five separate compartments,
ranged round a central space, and each tapering to a narrow-mouthed tube, which terminates about an inch within the neck of the bottle. A small pinhole is drilled through the outer surface of the bottle into each compartment, the holes being so placed that when the bottle is grasped by the hand in the ordinary way (see Fig. 141) each hole may be covered by one or other of the fingers or thumb. The central space is left empty, but the surrounding compartments are filled, by means of


Fig. 141.
a funnel with a very tapering nozzle, with the wines or liquids expected to be most in demand, or to which it is intended to limit the spectator's choice. A tray full of glasses, made specially of very thick glass, so as to contain in reality much less than they appear to do, completes the apparatus.

The performer comes forward with the magic bottle, followed by an attendant bearing the tray of glasses. He commences by openly pouring water into the bottle, and out again, so as indirectly to raise the inference that the bottle must be perfectly empty. The water, in truth, really passes into the center space only, and thence runs out again as soon as the bottle is tilted. The fingers,
meanwhile, are tightly pressed on the different holes, and thus excluding the air, effectually prevent any premature flow of wine from the various compartments. The performer, still holding the bottle mouth downwards, says, "You observe, ladies and gentlemen, that the bottle is now perfectly empty, and yet, by my magic art, I shall compel it to refill itself for your benefit." He then, addressing various individuals, asks each whether he prefers port, sherry, gin, etc., and when the answer is given, has only to raise the finger stopping the air-hole of that particular compartment to cause the liquid named to flow from the bottle, stopping as soon as the finger is again pressed on the hole. It is a good plan, in order to prevent confusion, to place the liquors in the bottle in alphabetical order, commencing from the hole stopped by the thumb. Some performers increase the variety of the liquors produced by placing beforehand in certain of the glasses a few drops of various flavoring essences. By this means a compartment filled with plain spirits of wine may be made to do duty for brandy, whiskey, etc., at pleasure, according to the glass into which the liquid is poured.

The trick is sometimes elaborated by the performer, by way of conclusion, apparently breaking the bottle, and producing therefrom a borrowed handkerchief or other article which has been made to disappear in some previous trick. This is effected by means of an additional specialty in the construction of the bottle. The compartments containing the liquids in this case terminate a couple of inches above the bottom of the bottle, and the part below this, which has a wavy edye, like fractured glass, is made to slip on and off. (See Fig. 142.) The performer, having produced the wines, pretends to crack the bottle all round by rapping it with his wand, and, having apparently cracked it, pulls the bottom off, and exhibits the handkerchief, which was beforehand placed in readiness therein. The two parts of the bottle joining with great nicety, there is little fear that the pretended crack will prematurely attrac.t attention.

Where the trick is performed before a very large audience, a single bottle would not contain sufficient liquor to answer all the demands upon it. In this case it is necessary to change the bottle, sometimes more than once in the course of the trick. This is most frequently done under cover of a chair or table; but where the trick is performed on the stage, a more elaborate expedient is sometimes employed. The bottle used has in this case an outer shell or casing of tin, open at the bottom, the actual receptacle for the liquids being within this. When the bottle is exhausted, the performer with ap-


Fig. 142.
parent carelessness places it upon a small table, standing against the side scene, pending the arrival of more glasses, or under any other convenient pretext. The bottle is, in truth, placed immediately over a small round trap, the performer being guided as to its proper position by a couple of small pins projecting upwards from the surface of the table, against which pins he pushes the bottle. The moment it is so placed, the assistant behind the scenes, who has his eye to a hole in the parti-
tion, and his arm extended within the table, opens the trap, pulls down the empty interior of the bottle, and instantly replaces it with a full one, which he holds in readiness, and at the moment when the performer again grasps the bottle to continue the trick (and thereby furnishes the necessary resistance), pushes it sharply up into its place.

The Bottle and Ribbons.-This is another favorite bottle trick. The bottle is in this case also of tin, with an enclosed space round the sides to contain wine, commencing about an inch and a half from the lower end, and terminating just within the mouth. (See Fig. 143.)


Fig. 143.


Fig. 144.

The bottle has no bottom, and there is thus a passage, in the shape of an inverted funnel, extending through its whole length. A cylindrical base or stopper (see Fig. 144) just fits into the space at the bottom of the bottle, and on this are fixed six or eight small reels or bobbins. On each of these is wound a yard or so of ribbon, each of a different color. An upright wire rod
springs from the center of this base, terminating just within the neck of the bottle in a little flat piece of metal, perforated with as many holes as there are ribbons; and one end of each of the ribbons is brought up through one of these holes, and a little knot made upon it to prevent its slipping back again.

The ribbons being in position, and the space in the bottle duly filled with wine, the performer brings it forward, and, after pouring out a glass or two, asks some lady present which is her favorite color, and on receiving an answer, gently taps the bottle with his wand, and immediately draws out with the tip of his forefinger from the neck, and presents to her, a ribbon of the desired color. More wine is produced, alternately with fresh ribbons, until all are exhausted.

The above is the drawing-room form of the trick. Upon the stage it is slightly varied. The same kind of bottle is used, but the internal provision of reels and ribbons is removed, so that the bottle remains a simple tin bottle, open at the bottom, with the funnel-shaped passage already mentioned extending through its entire length. The performer, having poured out a zlass or two of wine, places the bottle on a stool or table, hrough the pillar of which is a hole or passage communicating with a corresponding hole in the stage. Beneath this is stationed the performer's assistant, who is provided with a large number of various colored ribbons, and a thin rod of three or four feet in length, with a small point or blunt pin at the top. The performer takes care always to repeat in an audible voice the name of the color called for. This is a signal to the assistant to hitch one end of the ribbon in question on the top of the rod, and hold it in readiness beneath the stage. He does not, however, push it up through the bottle until warned by the sound of the tap of the wand on the bottle that the performer is ready to receive it. The performer, on his part, takes care, before tapping the bottle, to place his thumb upon the mouth, so as to prevent the rod passing too far. Sometimes a combination of colors is asked for,
as, for instance, the tricolor, or any other national group of colors.

After having produced a reasonable number of ribbons, an effective finish may be made as follows: A last color or combination of colors having been demanded, the performer does not draw the ribbons, as hitherto, completely out of the bottle, but leaves them hanging down loosely on each side of it. He now announces that, at the word of command, the ribbons shall, of their own accord, return into the bottle. The assistant takes his cue accordingly, and at the third tap of the wand draws the ribbons smartly down again; their instantaneous disappearance within the bottle being exceedingly effective.

The Mysterious Funnel.-This is a little appliance on the same principle, which may be incidentally introduced with good effect in the course of a wine trick. It is a tin funnel, made double throughout, with a space of half-an-inch or so between its inner and outer sides. It is, in fact, a funnel within a funnel, joined at the upper edges. (See Fig. 145.) It has an air-hole, $a$, generally on the under side of the handle. When required for use, the hidden space is filled with wine. The simplest way of doing this is to stop the spout of the funnel with the finger, and then to fill it with wine, which, seeking its


Fig. 145.
own level, will gradually rise to the same height in the outer space as it stands inside the funnel. This must, of course, be done with the air-hole open. When the space is filled, the air-hole is stopped, and the wine remaining inside the funnel allowed to run out. The funnel will now appear perfectly empty, and may be used as a funnel in the ordinary way.

The mode of using the funnel is somewhat after the following manner, subject, of course, to variation, according to the taste and invention of the performer:

A juvenile is invited to take a glass of wine, the product of either of the preceding tricks. When he has imbibed it, the performer asks a second juvenile whether he would like a glass also. The reply is pretty sure to be in the affirmative, but the performer pretends to find, when about to oblige him, that his store is exhausted. He begins to apologize for the supposed disappointment, but as if suddenly bethinking himself, says, "However, you shan't be disappointed. If I can't supply you in the natural way, I must do so in a supernatural way. Suppose we take back the wine this young gentleman has just drunk. I don't suppose it will be any the worse. Let me see, where is my magic funnel? Oh, here it is. Let us make sure first that it is quite clean.'" He pours water through it, and then holds it up to the light in such a manner that the audience can see right through, thus indirectly showing them that it is empty. "Now, sir,'" (addressing the youngster who has drunk the glass of wine), "I am going to take back that glass of wine. Be kind enough to bend your elbow, and hold it over the mouth of the funnel, so. And you, sir,' (addressing the expectant), "perhaps you will be kind enough to take this young gentleman's other arm, and work it gently up and down. In fact, we are going to transform him into a pump. Now, sir." The performer holds the glass under the funnel, and as soon as the pretended pumping begins, opens the air-hole, when the wine runs into the glass, and is handed to the second young gentleman as a reward for his exertions.

Acted with spirit, this little interlude is sure of an uproarious reception from the juvenile portion of the audience.

The Box of Bran Transformed to a Bottle of Wine. -While upon the subject of wine tricks we may mention this, which is by no means the least surprising of the illusions to which "the bottle" gives birth. The necessary apparatus consists of four pieces. First, a plain


Fig. 146.
cylindrical tin box A (see Fig. 146), japanned to taste, and about six inches high by three in diameter. Secondly, B, a similar box, so far as external appearance is


Fig. 147.
concerned, but materially different in its internal construction. This latter is bottomless, but has a horizontal tin partition at about three-quarters of an inch from the top. These two boxes have but one lid, which fits either indifferently. The third article is a cylindrical pasteboard cover (see Fig. 147), closed at the top, and of such a size as to fit loosely over B, but an inch or two taller. The fourth item is a bottle, made of tin, japanned black, and of somewhat peculiar constrution. (See Fig. 148). As a measure of capacity, it terminates just below the shoulder, the remainder, or body of the bottle, being, in fact, merely a tube closed at the bottom, in which this upper portion works. A spiral spring


Fig. 148.
within the body presses the neck portion upward into its proper position; but if pressure be applied, the neck portion will sink downward into the body, as shown in Fig. 149, in which condition it just fits into B. A small point projects from the lower part of the bottle, and corresponds with a bayonet catch at the bottom of $B$, which is in fact designed as a case or cover for the bottle.

For the performance of the trick the operator will require, in addition to the apparatus above mentioned, an oblong deal box, half full of bran. (Rice is sometimes used, but is not so good.) Any box will answer the purpose, so long as it is not less than fifteen. inches or 80 in length, and nine in breadth and depth. In prepar-
ing for the trick, the first step is to fill the bottle, or the "fillable" portion thereof, with wine or some other liquid. The bottle is then corked; $B$ is placed over it and pressed down, and the bayonet-catch fastened. In this condition, but without a lid, B is placed in the deal box, and buried in the bran. The box of bran being now brought forward and placed on the table, the performer is ready to begin the trick. He first draws attention to A, which he hands round for inspection, as also the


Fig. 149.
pasteboard cover. When they are returned, he brings forward the box of bran, moving his hand backwards and forwards in it, and distributing a few handfuls to show its genuineness. Replacing the box on the table, he proceeds to fill A with bran. This he does by dipping A completely in the box, and scooping up the necessary quantity. As if to show all fair, he pours the bran out again into the box, and then makes a second dip to refill it. This time, however, he makes an exchange, and instead of bringing up A , brings up B , filling as he does so the shallow space at the top of the latter, which thus appears to be full to the brim. Placing it on the table, and putting the lid on, he places the pasteboard cover over it, and, addressing the company, volunteers to teach them how to extract wine from bran, and wine bottles from tin boxes. After a moment's pause, and the orthodox touch with the wand, he removes the cover, giving it at the same time a slight twist, thus releasing the catch, and removing $B$ within the cover. The spring within the bottle now meeting no resistance, presses the neck por-
tion upwards into its proper position, with all the appearance of a genuine bottle; and as it, in its present condition, is considerably taller than B , it can hardly be suspected that it was a moment ago concealed in the latter, particularly as the performer immediately proceeds to give a further proof of its genuineness by pouring a glass of wine from it.

In connection with the above trick we may describe another useful piece of apparatus, known as :

The Bran Bottle. This is a bottle, which, being covered over for an instant, vanishes, leaving in its place a heap of bran. The bottle is, like that last described, of tin, with a false bottom or partition, about an inch below the shoulder, so that it holds about a glassful of wine. The place of the ordinary bottom is supplied by a dise of tin, with a raised shoulder round it, fitting loosely within the bottle, so as to drop out by its own weight, unless kept in place by some external pressure. The cover is a mere cylinder of pasteboard, closed at the top. The bottle is prepared for use by filling the lower portion with bran, and putting the bottom in place (where it is retained by the pressure of the fingers), then filling the upper part with wine. The performer first pours wine from the bottle, and then places it on a plate, ostensibly to show that it does not pass through any opening in the table, but really for a reason which will presently appear. He now places the cover over the bottle, and on again lifting it presses the sides slightly, and so lifts the bottle with it. The loose bottom, having no longer anything to hold it, remains on the plate, concealed by the bran which pours from the bottle, and into which the bottle is apparently transformed. Meanwhile, all eyes being drawn to the heap of bran, the performer lowers his hand, containing the cover, for an instant behind the table, and relaxing the pressure of his fingers, lets the bottle slip out on the servante, immediately coming forward with the cover, and carelessly showing that it is empty.

In combination with the bran bottle, the trick last above described is greatly heightened in effect by the bottle appearing under the cover which has just been placed over the tin box-the bran from the latter being found under the cover which a moment previously concealed the bottle, and the tin box being found to have passed into a large box of bran.

The Bran Glass.-This is an ingenious and very useful piece of apparatus. It is made in all sizes, from that of an ordinary wine-glass to a goblet large enough to hold a rabbit. Its effect is as follows: The glass is brought forward apparently filled with bran to the brim. The performer proves its genuineness by taking up a handful of it, and scattering it over the stage. A brass cover is now placed over the glass, and instantly removed, when every particle of bran is found to have disappeared, and in place of it is found some article which had been conjured away at some earlier period of the trick. The explanation is very simple. The glass is shaped as shown in Fig. 150, with straight sides, tapering outwards. The supposed bran is really a hollow


Fig. 150.
shape of tin, $a$, closed at the top, but open at the bottom, with bran gummed all over it, and a handful of loose bran spread on the top. At each side of its upper edge is a little wire point, just overpassing the edge of the
glass. The cover (see Fig. 151), which is of such a size as to cover the glass as far as the upper part of its stem, has no specialty about it, save a shallow groove running round its upper edge on the inside, as shown by the dotted line. When the cover is placed on the glass, and


Fig. 151.
pressed smartly down, the two points already mentioned are forced into this groove, which thus grips the tin shape, and when again removed, lifts it out of the glass, leaving behind whatever article may have been beforehand placed within.

Where the bran glass is of large size, the metal cover is indispensable; but for glasses not exceeding the ordinary tumbler size, it is preferable to cover the glass with a borrowed handkerchief only, the hollow shape being in this case made, not of tin, but of thin cardboard. The two points are dispensed with, but in place of them there should be a piece of thread, in length about double the diameter of the glass, fastened from side to side of the shape. This, hanging down on the side of the glass which is toward the performer, is caught hold of through the handkerchief, and thus handkerchief and shape are lifted together.

The bran glass may be made available in a variety of ways; the trick next following will afford a good practical illustration of its use.

To Fire Borrowed Rings from a Pistol, and Mare Them Pass Into a Goblet Filled with Bran and Covered with a Handkerchief, the Bran Disappearing, and Being Found Elsewhere.-The glass used in this
instance is of ordinary tumbler size. It is not brought forward as above, with the bran shape already in place, but empty, and may therefore be freely offered for inspection. With it is brought forward a wooden box, of any size and shape, filled with bran, and in this, ready to hand, is concealed the bran shape. The pistol tube used in this instance differs somewhat from the ordinary magic pistol, having an additional peculiarity; (See Fig. 152). It is of comparatively small size, being about two inches wide at the mouth. Within this mouth fits easily a tin cup, a, about an inch and three-quarters in


Fig. 152.
depth, and having its edge turned over outwards all round, so as to afford a ready grip to the palm when it may be necessary to remove it. The pistol is beforehand loaded with powder, and the cup above described is placed in the mouth of the tube.

The performer begins by asking the loan of three rings, to be fired from his magic pistol. To preclude the possibility of their being exchanged, he requests the owners to drop them into the pistol themselves. First, however, by way of wad, he takes a small piece of white paper, and presses its center portion into the mouth of the pistol tube, its edges projecting all round, and forming a sort of cup to receive the rings. Three rings having been offered, and dropped into the pistol, the performer closes over the edges of the paper, and presses them down with his wand, the effect being as if the rings were fairly rammed down into the pistol, though they really remain in the cup, just within the mouth. He now hands the pistol to one of the spectators, requesting him to hold it muzzle upwards above his head. In handing it to him, he places for a moment his own right hand
over the mouth of the tube, his palm being flat upon it, and in again removing the hand lifts out and palms the cup (which the projecting edge enables him to do with perfect ease). He has thus obtained possession of the rings. (As the holder of the pistol has been instructed to hold it above his head, he is not very likely to look into it; but lest he should do so, it is well to place in the tube beforehand a piece of crumpled white paper, to represent that which contained the rings.)

The performer now hands round the glass for examination, and subsequently draws attention to the box of bran. While doing this he has little difficulty in getting the rings out of the cup and paper into his right hand. He then, holding the glass in his left hand, dips it into the box, and fills it with bran, which he forthwith pours slowly back again to prove its genuineness. Meanwhile, his right hand is engaged in fishing up the bran shape among the bran, placing it mouth upwards in the box, and dropping the rings into it. When he again dips the glass into the box, he slips it mouth downwards over the shape, immediately turning it into the natural position, and bringing it up, to all appearance, full of bran. As the rings were in the shape, they are, of course, now in the glass. He brushes the loose bran off the top, and then covers the glass with a borrowed handkerchief, taking particular notice on which side hangs the loop of thread. The person holding the pistol is now requested to take good aim, and fire at the glass. IHe does so, and the performer, lifting the handkerchief with the shape within it, lets the latter drop on the servante, and advancing with the glass, requests the owners to identify their rings.

The trick may cither end here, upon the supposition that the bran has been blown away altogether by the explosion, or the bran may be shown to have passed to some other place.

[^2]since. In rffect it is as follows: The performer brings forward an ordinary fan, and a couple of bits of tissuepaper, each torn into a fanciful likeness of a butterfly 'r'aking these upon his hand, he gently fans them, the motion of the air speedily causing them to rise above his head. Still gently fanning them, he causes them to hover, now high, now low, now fluttering along the wall, now descending into a gentleman's hat, whence they presently emcrge to again flutter hither and thither at his pleasure.

The point that most strikes an attentive observer is the fact that, whether they fly high or low, the butterflie: always keep together. Sometimes they may be a ccuple of feet apart, sometimes only a few inches, but they never exceed the above limit; and the spectator naturally concludes that an extraordinary degree of dexterity must be necessary to enable the performer to keep them from diverging more widely. Here, however, in truth lies the secret of the trick, which is, that the so-called butterflies are connected by a piece of very fine silk a couple of feet in length, which, when the butterflies are in motion, is absolutely invisible to the spectators. The remainder of the trick is a matter of practice, though it is less difficult than would be imagined by any one who has never attempted it.

Some performers have the silk thread attached to one of the buttons of the coat. This arrangement will be found greatly to facilitate the working of the trick.

The paper for the butterflies is better torn than cut, and should be as nearly as possible of the shape of a St. George's cross, and about two inches square.

The Wizard's Omelet. (Borrowed Rings and Live Doves Produced from an Omelet.)-This is a trick which always produces a great sensation, whether performed upon the stage or in the drawing-room. Its effect is as follows: The performer produces either naturally or magically (e.g., from the egg-bag, or apparently from the mouth of his assistant, three eggs, which
he hands around for examination. His assistant next borrows from the audience three ladies' rings, receiving them, in order to prove that he does not tamper with them in any way, on the performer's wand instead of in his hands. The wand, with the rings still upon it, is laid upon the table. The assistant next brings in an omelet pan, and places it, with its lid beside it, on the table. The performer breaks the eggs into it, dropping in shells and all-then pours some spirits over it, to which he sets fire, and while it is still blazing drops the rings from the wand into it. He brings it forward to show that the rings are really in the flames; and on returning to his table, claps the cover on the pan, and fires a pistol (any ordinary pistol) over it. Without a moment's interval, he again removes the cover. All traces of the omelet and egg-shells have vanished, but in their place are found three live doves, each with a ribbon round its neck, to which is attached one of the borrowed rings.

The explanation of this surprising result is simplicity itself. The reader, with his present knowledge, will readily conjecture that, as to the rings, a substitution is effected; but he may not so easily guess the manner of such substitution. It will be remembered that the rings were collected by the assistant on the performer's wand. This arrangement, which is ostensibly adopted to prevent, in reality facilitates an exchange. The assistant makes his collection with three dummy rings placed beforehand on the lower end of the wand, and concealed by the hand in which he holds it; which, we will suppose, is the right hand. In returning to the stage, he takes hold with the left hand of the opposite end of the wand, and allows the borrowed rings to run down into that hand, at the same moment releasing the dummy rings from the right hand, and allowing them to run upon the middle of the wand in place of the others. He now has the borrowed rings in his left hand, and (laying the wand with the substitutes on the table) carries them off with him to prepare for the denouement of the trick.

The only other matter which will require explanation is the construction of the omelet pan. This is a shallow pan of brass or tin, about ten inches in diameter, by two and a half in depth. Within this is an inner pan, also of brass or tin, fitting tightly within it, but about half an inch less in depth. The lid is made with a very deep rim or shoulder all round, and just fits within the lining, though less tightly than the latter fits within the pan. (See Fig. 153, in which $a$ represents the pan, $b$ the lining, and $c$ the lid.) The assistant, as soon as he gets


Fig. 153.
behind the scenes, loops the borrowed rings to the ribbons, which are already tied round the necks of the three doves, and places the latter in $b$, immediately putting on $c$ (the two together having the appearance of a simple cover), and brings forward the pan and cover. The performer now makes his omelet, and drops the substitute rings into it. In bringing forward the pan to show that the rings are really there, he takes care to avoid the owners of them, who would alone be likely to detect the substitution. When he claps on the cover,
the trick is really done, the firing of the pistol being merely for effect. When the cover is again removed, the lining remains in the pan, concealing the omelet beneath it, and revealing the doves, with the rings attached to their necks.

The Ceinese Rings.-These are rings of brass or steel, in diameter from five to nine inches, and in thickness varying from a quarter to three-eighths of an inch. The effect of the trick to the spectator is as follows: The rings are given for examination, and found to be solid and separate; but at the will of the operator they are linked together in chains of two, three, or more, becoming connected and disconnected in a moment, and being continually offered for examination. Finally, after the rings have become involved in an apparently inextricable mass, a slight shake suffices to disentangle them, and to cause them to fall singly upon the stage.

The sets of rings sold at the conjuring depots vary in number, ranging from six to twelve. The set of eight, which is perhaps the most usual number, consists of one "key" ring, two single rings, a set of two linked together, and a set of three linked together. The "key" ring (see Fig. 154), in which lies the secret of the trick, is simply a ring with a cut or opening, $a$, in it. For use


Fig. 154.
upon a public stage, where the performer is at a considerable distance from his audience there may be a gap of an eighth of an inch between the ends, but for draw-ing-room use, they should just touch each other. Some
rings are made to "clip" like an ear-ring, and some have the opening cut diagonally instead of square, but the simple square cut is, in our own opinion, the better of the two.

We shall, in the first place, describe the trick as performed with the set of eight rings above mentioned, afterwards noticing the more elaborate performance with twelve. We must premise, however, that the manipulation of the rings admits of almost infinite variation, and that the practice of performers differs greatly as to the mode of working them.

The performer comes forward holding the eight rings in his left hand, arranged as follows: First (i. e., innermost), comes the set of three; then the "key" ring (the opening uppermost in the hand), then the set of two; and, lastly, the two single rings. Taking the first of these, he hands it to a spectator for examination; passing it when returned to another person, and carelessly handing a second ring to be examined in like manner. This should be done without any appearance of haste, and with an air of being perfectly indifferent as to how many of the rings are examined. The two "singles" having been duly inspected, the performer requests one of the spectators to take them both in his right hand, at the same time taking in his own right hand the next two rings, which, it will be remembered, are the set of two, though the audience naturally be-


Fig. 155.
lieves them to be, like the first, separate. "Now, sir,'" the professor continues, "will you be good enough to link one of the rings which you hold into the other?'" The person addressed looks more or less foolish, and finally ' gives it up." 'You can't,' says the performer in pretended surprise. "My dear sir, nothing is easier. You have only to do as I do. See!" Laying down the rest of the rings, he holds the two as in Fig. 155, and makes a gentle rubbing motion with the thumb upon the rings, and then lets fall one of them, which naturally drops to the position shown in Fig. 156. He now stands these two rings for examination. The spectators seek for


Fig. 156.
some joint or opening but none is found; and meanwhile the performer transfers the next ring (the key'') to his right hand, keeping the opening under the thumb. He now takes back with the left hand the two single rings, immediately transferring one of them to the right hand, and with the ball of the thumb presses it through the opening in the key ring, into which it falls, with exactly the same effect as the apparent joining of the two linked rings a moment before. Again he separates
and again joins the two rings. The second single ring is now made to pass through in like manner, making the combination shown in Fig. 157. The performer remarks,


Fig. 157.
"We now have three joined together. Here are three more, as you see (shaking those in the left hand), all solid and separate, and yet at my will they will join the


Fig. 158.
others." Making a rubbing motion with the thumb as before, he drops two of the three, one by one, from the hand, when they will appear as a chain of three. These he hands for examination, taking back the set of two, and linking them one after the other into the key ring, to which now four rings are attached. Again taking back the set of three, he links these also one by one into the key ring, which thus has seven rings inserted in it. (See Fig. 158.) Using both hands, but always keeping


Fig. 159.
the opening of the key ring under one or the other thumb, he now takes off these seven rings, commencing with the two single ones, and again offering them for examination; then taking off the set of two. Last of all, he unlinks the set of three, and then, holding them at length in his left hand, joins the upper one to the key ring, thus making a chain of four, of which the key ring is the uppermost. He next takes the lowermost ring of the four, and links that into the key ring, bringing the four rings into a diamond shape, as shown in Fig. 159. Again unlinking the lower ring, he takes
up the set of two, and connects them with the key ring, holding them up above it, thus making a chain of six, the key ring being third from the top. (See Fig. 160.)


Fig. 160.
Taking the upper ring between his teeth, he links the two single rings into the key ring on either side, making the figure of a cross, as shown in Fig. 161. As the hands are now occupied in holding the single rings forming the arms of the cross, he can no longer keep the opening of the key ring concealed by the thumb, but it is extremely unlikely that among so many rings, so slight a mark in one of them will attract notice. Regaining possession of the key ring, he links all one by one into it,
so as again to bring them into the condition illustrated in Fig. 158. Then, holding the key ring with both hands,


Fig. 161.
and with the opening downwards, about a couple of feet from the floor (see Fig. 162), he shakes the rings violently, at the same time gently straining open the key ring, when the seven rings will all in succession drop through the slit and scatter themselves about the floor, the general impression being that they all fall separate, though the grouped sets, of course, remain still united.
It is not an uncommon thing to see a performer commit the gaucherie of handing all the rings, save only the key ring, to be examined in the first instance; the key ring being hidden under the breast or under the tail of the coat, and being added to the set in returning to
the table. The spectators are thus needlessly made acquainted with the fact that certain of the rings are already linked together, and this once admitted, the trick loses nine-tenths of its effect.


Fig. 162.
The set of twelve rings is less frequently seen, and is rather more complicated to manage, though in good hands it is capable of much more brilliant effects than the smaller number. The set consists of five single rings, a group of two, a group of three, and two key rings. These are held in the hands of the performer in the following order: First (i. e., innermost) a key ring, then the group of three, then the second key ring, then the group of two, and lastly the five single rings. The latter are distributed for examination. While they are still in the possession of the audience, the performer requests one of the spectators to link two of them together, and
himseì taking in his right hand the group of two, pretend to link the latter, as already described, and hands them for examination. The performer meanwhile takes in his right hand one of the key rings, and collects the single rings in his left. As soon as the group of two are handed back, he links one of them to the key ring in his right hand, thus forming a chain of three, with the key ring uppermost. Next linking the lowest ring into the key ring, he forms Fig. 157, which, by holding the two lower rings apart, assumes the shape of a triangle. Again disengaging the lower ring, passing one of the single rings from the left hand to the right, and laying down on the table all the rings remaining in that hand (the group of three uppermost) he joins the single ring to the key ring, thus making a chain of four, of which the key ring is second from the top. These he lays, still linked, upon the table, and takes up from the heap already lying there the three uppermost (which, it will be remembered, are the group of three), and holding them for a moment together in the hand, lets them fall one by one to form a second chain of three. Taking the next ring of the heap (the second key ring) in his disengaged hand, he steps forward, and requests some one to take hold of either of the three rings, and to pull against him, in order to prove their solidity. This ascertained, he passes the upper ring of the three into the hand which already holds the key ring, and links it into the key ring, thus forming a second chain of four, of which in this case the key is the uppermost. Linking the lowermost into the key ring, he shows the rings as in Fig. 159. Once more unlinking the lower ring, so that the four again appear as a single chain, he proceeds (apparently) to link all the twelve together. This is effected as follows:

Taking two of the single rings, the performer links them into the key ring of the chain which he holds. He next links one of these same single rings into the key ring of the other chain, thus linking the two chains together at a distance of one ring from the end of the
chain. He thus has ten rings joined. He now takes the two chains one in each hand by the ends remotest from the point of juncture, immediately after picking up and holding (one in each hand) the two remaining single rings. These, of course, he does not and cannot link with the rings adjoining them, but the spectators seeing that all the rest are linked together, readily believe that these also form part of the chain. The precise arrangement of the rings will be readily understood from an inspection of Fig. 163.


Fig. 163.
The feat may either end here, the rings, still linked, being gathered together and carried off by the assistant, or the performer may link all one by one into either of the key rings, and then shake them out and scatter them on the floor in the manner already dsecribed as to the eight rings. The performance may be elaborated to any extent, the two key rings giving a wonderful facility of combination, but whatever be the passes adopted, they should not be too numerous, as the trick, however skillfully worked, consists only of repetitions of the same primary elements, and the interest of the spectators will quickly diminish.

The performer should, in manipulating the rings, study neatness and lightness, rather than rapidity. The effect should be as though the rings melted into and out of one another, and the smallest appearance of force or exertion should be avoided. It has a very good effect in disengaging the rings one from another, to hold them together for a moment or two after they are actually disconnected, and then holding them parallel to each other, to draw them slowly apart. The precise moment of their separation is thus left uncertain, the illusion being thereby materially heightened. A single ring may in this way be drawn along a chain of three or four, the effect being as if the disengaged ring passed through the whole length of the chain.

The Cannqn-Ball Globe.-This is a bronzed or sil-ver-plated globe, divided horizontally into two portions, forming vase and lid respectively. The globe is supported on an elegant pedestal, the precise design of which is a matter of taste. Sometimes it is a mere pillar like that of a lamp, more or less richly ornamented. In some cases Atlas himself is made to carry the globe upon his shoulders, but more often it is held aloft by a mediæval man-at-arms, after the fashion shown in Fig. 164.

The dimensions of the globe (shown in section and open in Fig 165) are such as exactly to contain a metal cannon-ball, which forms part of the apparatus. This cannon-ball consists of two hemispherical shells $a a$, rebated at the edges so as to fit closely together, though separable at pleasure. In the middle of each hemisphere is a small hole, say three-eighths of an inch in diameter, forming the center of a slight depression. From the corresponding points of the upper and lower portions, $b b$, of the globe project a corple of spring catches or tongues, $c c$, each in the shape of a cloven arrowhead, and so arranged that on pressure the two points unite, though they again separate the moment such pressure is removed. A second cannon-ball, of wood and solid, completes the apparatus.

The main effect to be produced is the disappearance of the cannon-ball from the globe, which may of course be led up to in a variety of different ways. RobertHoudin's own working of the trick was as follows:


Fig. 164.
Having at an earlier stage borrowed a hat for the purpose of some other trick, the performer loads the solid cannon-ball into it, and leaves it on the table, biding its opportunity. He then performs the trick of the
crystal balls, and at the conclusion, by way of further illustrating the fluidity of the ball, undertakes to pass it through the crown of the hat upon the table. Taking the hat in one hand and the glass ball in the other, he makes believe to be about to pass the ball through the crown, but fails to do so. "I


Fig. 165.
can't understand this," he remarks; "there must be something in the way." Then, glancing into the hat, ' $O$ ho! this quite accounts for it. Of course I could not pass the ball through the hat with a great thing like this in it." So saying, he turns over the hat, and out rolls the solid cannon-ball. It is picked up and carried off by the attendant, but the performer calls him back again. He returns accordingly, bringing back the ball, and placing it on the table. Not the same ball, however, for during his momentary absence he has exchanged it for the hollow ball belonging to the cannonball globe. Within this ball have been beforehand placed a pack of cards, a small silk handkerchief, and a glass
ball, all duplicates of like articles which the performer has been using in the course of the performance, and which still remain on the table.

The cannon-ball being brought back again, the performer remarks "Never mind, as I have failed to pass the ball through the hat, I will see if I can't do the same sort of thing in a still more striking way. I will put this cannon-ball into this vase, which seems to be about the right size for it, and make it invisibly pass out again."

He brings forward the vase, and places it on the table, then places the cannon-ball within it, taking care so to adjust it that it shall have the holes at the opposite extremeties of its vertical axis, so as to correspond with the position of the spring-catches, which duly engage themselves therein. He then puts on the cover.
"Now, ladies and gentlemen," he says, "in order to force the ball out of the vase, the best plan, I think, will be to pass two or three other objects into it, and as there will not be room for all, the cannon-ball will be obliged to make way. First, this glass ball." This is taken in the left hand, and thence by means of the tourniquet transferred (apparently) to the right, from which, at the word "Pass," it vanishes. The handkerchief is rolled up into a ball, palmed, and caused to vanish in a similar way. The cards are spread on the table, and with a semicircular sweep of the hand made to fall on the servante. When the vase is opened, the cannon-ball is pulled past by the action of the spring-catches, one half remaining in the upper and the other in the lower portion of the vase. So placed, they are invisible, for the interior of the ball is japanned the same color (usually black) as that of the vase. The impression produced in the mind of the audience is that the ball has departed altogether, and the presence of (apparently) the same articles previously seen outside confirms that impression.

Two little additions will be found to heighten the effect of the trick. The one is to borrow a visiting card
from some person present, and to "pass" it into the globe with the other articles. The card in reality remains simply palmed in the hand, and is introduced after the vase has been opened; but as its identity cannot well be questioned, it goes far to persuade the audience of the genuineness of the other articls also. The second point is to have ready on the scrvante a second (solid) cannon-ball, and to load this into the hat at some convenient stage of the trick; to be ultimately produced as the ball which was a moment before in the vase, but has by some means found its way back to its old quarters.

To Balance an Egg on the End of a Straw.-A plate of eggs is offered for selection; likewise a bundle of straws, of the kind sold at bonnet-shops as "gophering'' straws, good strong straws, cut square, free from bruise or split, and about eight inches in length; but quite free from preparation of any kind. The eggs are


Fig. 166.
equally unprepared; but, nevertheless, a given egg and a given straw having been selected, the performer forthwith balances the egg, end upwards, on the straw, and carries it, so balanced, from side to side of the stage. Another straw, or another egg, may be substituted at pleasure, but the result is still the same.

The secret lies in the use of a minute piece of apparatus, a little ivory cup (so shallow as to be almost flat), the thickness of an egg-shell, and the size of a dime. From the center of this cup, on the convex side, projects a little stem, half-an-inch long, and the thickness of a pencil-lead (see Fig. 166). It will be readily seen that by dropping this stem into the upper end of the straw, the two will form a support upon which an egg can be very easily balanced. The magic of the trick will lie in the deftness with which the cup and the straw are made one, and the address with which the presence of the little cup is concealed. The first desideratum is best effected by adapting the cup to the end of the egg, and then (under cover of the fingers which hold the two together), inserting the stem into the upper end of the upright straw. To meet the second point, special care should be devoted to the selection of the eggs used, each of which should be of such a curve, at its larger end, as exactly to fit the concavity of the cup. If due attention be given to this point, the cup will be, at a very short distance, invisible.

The Obedient Candle.-This is a candle which extinguishes and relights itself at pleasure. In appearance it is an ordinary candle in a candlestick, but closer inspection reveals the fact that the supposed "candle" is in reality a metal tube japanned white, with a metal point at top to represent the wick. Within this is a small taper normally forced up to the top of the candle by the action of a spiral spring, on the "Palmer's Candle'' principle. The spring is just strong enough to carry it up, but capable of being drawn down at pleasure by the pull of a silk thread coming out at the base
of the candlestick and thence led away "behind the scenes" to the hand of the performer's assistant.

The candle is placed on the table unlighted, and in due course is lighted by the performer. This done, in order to show his complete control of everything in general, and candles in particular, he states that by the mere exercise of his will, he can make ihat candle go out and re-light itself. Accordingly, pointing his wand at it, he says in his deepest tones, "Candle, go out!" or if he prefers a Shakesperian form of adjuration, "Out! brief candle." The concealed assistant pulls the string and the candle goes out (or rather in) accordingly, the pull drawing down the flame within the body of the randle. Reversing the command and pointing with the other end of the wand (emphasis should be laid on this, being professedly the explanation 'how it's done'), the assistant relaxes the pull, and the flame again appears.

A row of holes, down the side of the "candle" remote from the audience, give air to the taper during its temporary retirement. Even with this provision it is well not to protract such retirement too long; or the heat may melt the taper, to the serious detriment of its subsequent appearance.

The Bran Plate.-One of Mr. Bland's recent 'novelties" and which is good enough to deser $\boldsymbol{e}$ special mention is his "bran plate." This apparatus is designed for the production of a dove or other fairly large object, and takes, in fact, the place of the larger bran-glass.

The apparatus consists of two earthenware plates, of about soup-plate size. The one, when brought forward, is filled with heaped-up bran; the other, inverted, is placed on it by way of cover. When it is again removed a moment later, the bran has vanished, and in its place appears the dove or other object which it is desired to produce.

The secret lies in the fact that the supposed heap of bran is in fact a tin cover, with bran glued thereon, and
with a shallow depression in the center to hold loose bran, of which the performer takes a handful, and lets it fall through his fingers to prove its genuineness. This cover is so modelled that its convex side shall exactly adapt itself to the interior of either of the earthenware plates, while its concave side is japanned so as to match in pattern with them.

The working of the trick will now be clear. The object to be produced is placed in one of the earthenware plates, the cover placed over it, and the hollow in the center filled with loose bran. When it is desired to produce the concealed article, the second earthenware plate is turned down over the tin cover. The plates are waved about for a moment or two, and in replacing them on the table, turned over, so that the one containing the cover is now undermost. The one now uppermost is lifted off, and left carelessly in the way of examination. The bran has vanished, and there, in the second plate, is the article to be revealed.

Bran Disappearing from a Glass, and Reappearing Under a Plate.-It is a poor rule, it is said, that won't work both ways, and by a slight modification of the same apparatus an exactly opposite result may be produced. A glass, first shown empty, is filled with loose bran. A plate, also shown empty, is turned face downwards on a newspaper laid on the table. The glass is covered with a handkerchief. When the handkerchief is removed the bran has vanished, and is found to have passed under the inverted plate.

The glass is a small tumbler of pale blue glass, semitransparent, with a flat bottomed tin cup, three quarters of an inch deep, and colored to match, just fitting within its mouth. The edge of this cup is turned over all round, so as to be readily palmed off. The plate is of ordinary china, rather deep, with a loose tin center, japanned on its concave side to correspond with the plate, and covered on its convex side with bran. The little space between is filled with loose bran.

The construction of the apparatus once fully understood, the trick will require little further explanation. After the glass has been shown empty, the cup is secretly introduced, and this alone is actually filled with the bran. Better still, the glass may be dipped into a box containing bran, and the cup loaded in, ready filled. The plate, duly charged with bran, is shown with the thumb holding the loose center in position, and in this condition is turned mouth downwards on a newspaper or tray, as may best suit the convenience of the performer. When the cup is removed-which may be either done under cover of a handkerchief, or simply lifted off with the naked palm-the glass is left empty. The plate being lifted, the loose bran conceals the movable center-piece (which now lies hidden beneath it), and represents, to the eye of the audience, the bran which has just vanished from the glass.

The above outlines are of course the mere dry bones of the trick, which no true conjurer would dream of thus nakedly presenting. A skilled performer would introduce some other element, say, the finding in the glass of coins or trinkets, magically disposed of at an earlier stage of the illusion. The inventive genius of the reader will doubtless supply him with some more or less effective combination; but if his imagination is at fault, the trick of the borrowed rings fired from a pistol will be found to lend itself extremely well to the purpose. A restored writing, or a borrowed coin in, say, an orange, might be found within the glass. The experienced conjurer will find many other uses for it; in fact, it is one of those readily portable, general-utility pieces of apparatus which should form part of the stock-in-trade of every drawing-room performer.

## The "Coffee Trick." Improved.

In a mixed audience, particularly where juveniles are concerned, some may probably object to a spirituous beverage, and prefer something of a non-alcoholic nature. To such the performer may desire to offer a
cup of coffee, and I proceed to put him in the way of doing so.
a represents the vase proper, which is made of thin tin-plate (See Fig. 167), not japanned, but polished, and capable of bearing any amount of inspection. $\boldsymbol{B}$ is a "well," fitting at once into and over the sides of $A$, and


Fig. 167.
so neatly that no "catch" is required (as in the older apparatus) to keep it in position. c is a cardboard 'cylinder' fitting easily over b, and of such a substance that if it is placed over b , the performer can by judicious pressure on its sides lift $\mathbf{B}$ within it. D represents a little tin saucer fitting easily within the top of $\boldsymbol{b}$, and e a small metal lid fitting closely within D . The upper edges of d and e have a projecting bead all round, so that if E be lifted off, not by the knob in the ordinary way, but by pressure on this bead, $\mathbf{D}$ comes off with it.

No coffee-berries are in this case used, their place being supplied by a few handfuls of cotton wool. The well, в, is filled with the liquid to be produced. The saucer, d , filled with wool gummed down at the bottom, is inserted at the top, and the pasteboard cover (c) placed over all. In this condition it is brought forward on a tray with the vase (a) on which is placed the lid ( E ).

The performer begins by calling attention to the wool, of which he has a supply in a basket or plate, and states that from that apparently unlikely material he proposes to manufacture hot coffee for their refreshment. He exhibits the vase and lid, showing that they are empty, and giving all possible facilities for inspection. He then fills the vase with wool, making a show of putting in a large quantity, but in reality filling it as lightly as possible, that the wool may be the more readily compressible. He then proceeds to the effect following: "I should like you to observe, ladies and gentlemen, the vast improvements modern science has made in this experiment. In the old style the vase was always covered like this." As if merely suiting the action to the word, he raises c (with B within it) and places it over A. The wool gives way under в, which settles down in a.
"Observe the greater elegance of the modern method. The clumsy cover is dispensed with altogether." (Here he takes off c as if he had merely put it on for the purpose of illustration, but now grips it lightly, so as to leave b and $\mathbf{D}$ within A , though to the eye of the spectator, who sees wool still at the top of the vase, the condition of things is just as before.) 'I merely put on the lid ( E ) for a single instant. I wave my wand over the vase, take off the lid again, and you will find that the wool has become transformed into hot coffee, which I will proceed to hand round in order to prove that there is no deception."
An additional effect may be produced in connection with this very pretty trick, by the use of:

## The Mysterious Coffee-Cups.

The performer, having handed round sundry cups of the coffee thus magically produced, offers to show the company another little experiment. He takes one of the low and red, into a large glass dish, and then pours on a small tray, and asks one of the audience to hold it above his head. Then taking an empty cup and saucer, he places these also upon a tray, and gets some other person to hold them in like manner. He now commands the coffee to leave the full cup and pass into the empty one, and a moment or two later takes each cup from its holder, and shows that he has been obeyed. The "full" cup is now empty, and the other is three-parts full.

The cups and saucers are of tin, japanned in imitation of china. The cup originally full has a minute hole in the center of its bottom, corresponding with a similar hole in the upper surface of the saucer. This latter is hollow, and has a receptacle for the coffee between its upper and under surfaces. The other saucer has no specialty, but the cup has beforehand had the intervening space between its inner and outer surfaces filled with hot coffee. There is a minutes air-hole under the bend of the handle of the cup, which is at the outset plugged with a pellet of wax, so that the liquid does not escape. So soon as the performer removes this little pellet, the concealed coffee begins to flow into the cup.

## THE ENCHANTED COLORED SANDS.

The performer shows a quantity of sands of different colors, which are contained in separate bags to keep the colors apart. He next empties the different colored sands, which we will suppose are white, black, blue, yellow and red, into a large glas dish, and then pours on a quantity of water. He next stirs the sands, causing them to become well mixed. Now turning back his sleeves and showing his hands to be empty, he seizes an ordinary plate and asks the spectators which color of sand they would like him to pick out of the dish. Suppose they say red: he puts his empty hand into the dish
and brings it out filled with red sand, which is perfectly dry and which he allows to fall on the plate. He then proceeds to bring out any of the colors desired, continuing in this manner until he has produced a handful of each color.

The preparation for this capital and very mystifying trick, consists of dyeing a quantity of white or silver sand the colors to be used during the experiment. When dry, the sand of one particular color is placed in a frying pan together with a piece of paraffine or beeswax and heated until the paraffine or beeswax has become melted and mixed with the sand, the performer stirring the mass constantly during the heating process. In this manner a thin coating of paraffine or wax will be formed on each grain of sand. The sand is then placed in a goblet and pressed down well. The other colors are treated the same way, the performer, however, using a different shaped glass or box to press each separate color in, for reasons that will become obvious later on. After the sand has been pressed in this manner, it forms a firm cake, which is then placed in one of the bags and the unprepared sand poured on top. The remaining bags are filled in the same manner.

In introducing the trick, the conjurer allows anyone who desires, to examine the sands, and then proceeds to empty the bags into the glass dish as described. The unprepared sands upon being stirred color the water, so that the cakes of prepared sand cannot be noticed. After a sand of a particular color has been chosen, the performer simply introduces his hand into the dish and finds the cake of the chosen color, being able to distinguish it by its shape. He then brings out the cake in his closed hand, and squeezes it, which causes the sand to separate and to fall in a perfectly dry state upon the plate.

## THE FAMOUS EGG AND BAG TRICK.

The effect of this trick is as follows: The performer enters with the egg bag, which he places on the table, after first beating it on his hand or the table and turning
it repeatedly inside out and back again. An egg is next exhibited and covered with a borrowed handkerchief, which is laid on another table, so that the shape of the egg can be seen through the handkerchief. At the performer's command a change now takes place, the egg vanishing out of the handkerchief and appearing in the bag, from where it is removed by the performer, who now proposes to initiate his audience into the secret of the trick, which he claims is done by palming. Visibly palming the egg he shows how to beat the bag and turn it inside out and back again, having all this time the egg concealed in the palm, however, holding the latter in such a manner that the egg kept in it cannot be seen. He next introduces the hand containing the palmed egg into the bag and produces the egg from it.

Pretending to hear that some one did not quite understand him, he obligingly goes through the same manoeuvers as before, by beating the bag and turning it inside out and otherwise proving it empty, then to everyone's astonishment showing both hands empty also, the egg having completely disappeared. Going among the audience, he allows anyone to feel the bag, to prove that the egg is not contained in it, and also allows spectators to look into the bag, which he now requests someone to hold by its upper corners. Showing his hands entirely empty, he reaches into the bag and produces the missing egg from it.

The first thing to be explained is the construction of the bag, upon which the accomplishment of the trick depends. One side of the bag is double, the double side reaching clear down to the bottom of the bag. This side is sewed all round to the real side of the bag, with the exception of the right corner, where an opening of about two and a half inches in length is left. A property made bag, which ought to be purchased at a magical repository, may with impunity be turned inside out and back again under the very noses of the spectators without anyone suspecting it to be a prepared one.

In the beginning of the trick the egg, preferably a
blown one, is already in the bag, simply lying concealed between the double sides in the lower left hand corner of the bag, which may now recklessly be turned upside down, inside out and back again without fear of disastrous results. Before beating the bag the performer allows the egg to glide into an upper left hand corner and now seizes the egg there, the fingers masking and, at the same time, protecting the egg. The bag may now be banged about at will. Letting the egg drop back into the lower left hand corner of the bag, the performer slightly tilts the latter and lets the egg glide into the lower right corner, where the opening is. The apparently empty bag is then placed upon the table.

Taking a second egg, which is also a blown one, he covers it with a double handkerchief, the construction of which is as follows: Two handkerchiefs are sewed together round the edges, one of them having a slit of about two and a half inches in length in the center. In covering the egg with this prepared handkerchief, it is pushed into the slit, being thus hidden between the double handkerchief, which is laid down in such a manner that the shape of the egg is visible from the outside.

Upon seizing the haidkerchief by two of its corners and shaking it out, the blown egg slides down into one of the corners and has to all appearances vanished.

Then taking the bag the performer reaches into it and produces, through the opening left in the double side, the concealed egg.

He next pretends to teach the spectators how it is done, by visibly palming the egg and proving the bag empty while holding the egg concealed in his hand; then reaching into the bag and producing the palmed egg from it. All this is done simply to confuse the spectators and cause them to be so much more puzzled afterwards. It is therefore quite necessary that the pretended explanation must have all the appearance of genuineness about it, in order to cause the company to believe that the trick is really done by palming. Due
attention ought, therefore, to be paid to the proper execution of this part of the trick. In repeating his instructions, the performer palms the egg once more, reaches into the bag and places the egg between the double sides of the latter, then goes through the same manoeuvers as before, still holding one hand as if it really contained the egg. Both hands are then shown empty and the bag is also proven to contain nothing. In allowing the spectators to feel the bag, the egg is held concealed in the upper left corner, the left hand being held over that part of the bag. Any person looking into it will see nothing; for even when the egg is at the opening of the double side, the latter prevents it from being seen. A spectator is then requested to hold the bag, from which the performer then produces the egg by extracting it through the opening in the double side.

The trick may be made still more effective by using a rubber egg in the bag instead of a blown one. This egg which is painted in imitation of a real egg, may be pressed flat, immediately expanding after the pressure is released. It will be apparent that, by using an egg of this kind, the bag in which it is concealed may be twisted, folded, banged about and even trampled upon, without in the least injuring the rubber egg.

The effectiveness of the above trick depends entirely upon the address and amount of audacity displayed by the performer.

## THE WINE AND WATER TRANSFORMATION.

In the method of performing the trick of the above title that I am about to describe four glasses and a pitcher, preferably of glass, are used. The first glass is left empty, while the second one contains a few drops of muriated tincture of iron; the third glass contains a teaspoonful of a saturated solution of oxalic acid, while the fourth one is prepared in a manner similar to the second one. The pitcher is partly filled with water in which a teaspoonful of tannic acid has been dissolved.

These necessary preparations having been made, all is now ready for the performance of the trick.

The artist seizes the pitcher and first glass and pours water into the latter from the pitcher, then pouring the water back and forth several times, finally fills the glass and places it on the table. He then takes the second glass and fills it, the water instantly changing into wine. The same process is then repeated with the remaining glasses, the third one being filled with water and the fourth one with wine. Remarking that so far the experiment has been quite easy to perform, the conjurer takes the first and the second glasses and mixes their contents and as a result has wine in both glasses, then seizing the third and fourth glasses, which as will be remembered, contain wine and water also, he mixes their contents with each other and to everyone's surprise now has clear water in both of them. Then emptying all four glasses into the pitcher, commencing for this purpose with the third and fourth glasses the artist finally shows that he has nothing but water in the pitcher as in the beginning of the trick. To prove this he fills the four glasses with water.

## THE TAMBOURINE AND RIBBON TRICK.

The effect of this very popular trick is about as follows: The performer shows two nickel-plated hoops of about seven inches in diameter and one inch in height, one of these is a shade smaller than the other one, thus allowing the larger hoop to be placed directly over the smaller one. After showing a piece of white paper, the performer places it on the small hoop and presses the larger one down over it, in this manner securing the paper between the two. The protruding edges of the paper are then cut off with a pair of scissors, the apparatus in this form resembling a tambourine. The performer then asks the pianist to furnish him some lively music, which he proceeds to accompany upon his improvised tambourine, but after a few vain attempts he is unfortunate enough to push his finger through the center
of the paper. Inserting his finger into the hole thus made, he proceeds to pull out yards and yards of paper ribbon, which he winds up on his magic wand, catching the ribbon on the end of his wand for that purpose, and moving the latter round in a wide circle, causing the ribbon to wind itself around it. After the supply of ribbon is exhausted, the performer once more shows the tambourine empty from both sides, and pulling the hoops apart, shows that there are but the two plain hoops and the ordinary piece of paper.

There is no trickery whatever about the tambourine and paper, the secret depending on cleverly introducing into the tambourine, the load, in this case a roll of paper, from the center of which the wooden plug has been previously removed, the roll being of nearly the same diameter as the inner hoop. The usual time for doing this is when the performer reaches for the scissors, with which to trim off the superflous paper. The paper is concealed under the table top, where it is held in place by two metal clasps, which allow the roll to be withdrawn with ease. The rest is easy. The hole is pushed through the paper as already described; once more the tambourine is shown from both sides, the roll not being discernable from a short distance, then the paper is pulled out and wound up on the wand.

It is a very good plan to pick up the heap of paper afterwards and produce from it a live dove or duck. The dove is usually carried under the vest and is easily loaded into the paper. The duck may also be carried about the body of the performer, the customary place of concealment being under the coat, part of the duck being held in place by the upper part of the arm, while the other part is pushed under the coat at the region of the small of the back. This form of loading a duck into a heap of paper is the best one known and never fails to greatly astonish an audience. A drawback to this method is that the stature of most performers does not admit of carrying round such a bulky object as a duck without it being noticed.

For such I would advise the carrying of the duck in a black calico bag, suspended from the vest and hanging under the coat tails, or to have a suitable shelf on the back of an opaque chair, a thread or rubber band being slipped around the duck to prevent it from making an untimely appearance. The heap of paper is picked up, laid over the top of the chair, from where the performer removes it and brings it forward, this time taking the duck along under cover of the paper and producing it as already described, although usually the duck produces itself from among the paper as soon as the performer releases his hold on it a little.

THE TRANSFORMATION OF PAPER SHAVINGS INTO COFFEE AND MILK.
The performer introduces two ordinary boxes, one of which contains a quantity of small blue paper squares or shavings, while in the other box are shown white paper shavings. He next calls the attention of the company to two nickel-plated goblets, resembling in shape the well-known lemonade shakers, only being made out of much heavier material than these. He now proceeds to fill the first goblet with blue paper squares, levelling them off with his hand and then covering the goblet with a hemmed piece of black velvet of about fourteen inches square. The other goblet is then filled with white paper and is also covered. Removing the piece of velvet a moment later and immediately passing them out for inspection, the artist now shows that the biue paper shavings have turned into steaming hot coffee, while the white ones have become rich, creamy milk; he then pours these our and invites the spectators to partake of them.

This capital trick is performed by the aid of two additional goblets, which are concealed beneath the paper shavings in the boxes. One of these goblets contains the coffee and the other the milk. A shallow lid of a proper size, with a lip turned on its outer edge, is then placed on the mouth of each goblet, the lip on the
lid preventing it from sliding off. To the rear edge of the lid is soldered a wire, bent in the shape of a staple, this wire serving as a handle by means of which the lid can easily be removed from the top of the goblet. To the upper side of one of the lids some blue paper shavings are glued, while to the other one white shavings are fastened.

In introducing the first goblet into the box filled with blue shavings, the performer actually fills the goblet with them, lets them run back into the box and once more brings up the filled goblet, having, however, this time exchanged it for the goblet containing the coffee. He then covers this goblet, (which to all appearances is filled with paper shavings), with the velvet cover, deftly seizing the lid by its handle and dropping it upon the servante, while spreading the cover on. The other goblet is then treated in the same manner. The covers are then removed, passed out for inspection and the goblets are shown to contain coffee and milk.

## The Bewitched Fan.

This, for some unknown reason, is usually worked as a sort of incident, with the Horn of Plenty, and I therefore notice it here, though it has no necessary connection with that trick.

Among the articles which the performer produces from the cornucopia is a wooden fan, (see Fig. 168). He opens and fans himself with it. It appears to be an ordinary fan. He closes it, and hands it to a lady, inviting her to make use of it. She opens it accordingly, but a strange thing happens. It falls apart in her hands, and assumes the dislocated appearance shown in Fig. 169. The performer takes it from her, breathes upon it, and lo! it is whole again.

The secret lies in the construction of the fan, which is so made that by a peculiarity of the stringing (readily intelligible on inspection but practically impossible to explain in writing), the fan when opened from left to right in the ordinary manner assumes the customary
appearance of a perfect fan, but when opened from right to left parts in the way that has been described.

By giving the fan a turn-over in the hand, before opening it, the needful "change" is spontaneously ef-


Fig. 168.


Fig. 169.
fected, and the opening may always be in the same direction. The precaution is, however, scarcely necessary, for the slight difference between opening from left to right and right to left is not likely to be noticed by any one not in the secret.

The Vanishing Canary Bird and Cage.-This is another favorite die trick. The performer exhibits a canary bird in a little oblong brass cage, measuring six inches by four. He next exhibits a die three inches square, showing all sides to prove that it is solid. This he places upon a tray, which is held by the assistant, and covers it with a fancy cover as already described. He now throws a handkerchief over the cage. Bringing it forward thus covered to the company, he orders the cage to vanish, the die to pass into a borrowed hat, and the bird to appear upon the tray in place of the die. No sooner said than done; he waves the handkerchief, which is seen to be empty, and on raising the cover the bird is found under it; while, on turning over the hat, out falls the die.
The disappearance of the cage, which is of the form shown in Fig. 170 is effected as follows: The handkerchief used is double, and contains in its center, stitched


Fig. 170:
between the two surfaces, an oblong wire frame, in size and shape exactly corresponding with the top of the cage. When the performer throws the handkerchief over the cage on the table, he takes care to bring this wire shape immediately over the cage. When he apparently lifts the cage under the handkerchief, which he does standing behind his table, he really lifts the handkerchief only, distended by the hidden wire, and with
the other hand he gently lowers the cage out of sight upon the servante.

So much for the disappearance of the cage; but it yet remains to be explained how the bird comes to be found under the cover in place of the die. This is effected as follows: There are two dice, the one solid, the other of hollow tin, and having one side wanting, but capable


Fig. 171.


Fig. 172.
of being closed at pleasure by means of a sliding lid, also of tin, which supplies the missing side, and is painted accordingly. The outer edge of this lid is folded over outwards in a semi-circular form. (See Fig. 171.) The tray used (see Fig. 172) is of tin, japanned, and of ordinary appearance, but has a square piece of tin, of the same size as one of the sides of the die, soldered upon its center at about one-sixteenth of an inch above the surface. Three of its sides are soldered to the tray, the fourth being left open. The center of the tray is ornamentally japanned, in such manner as to conceal this special arrangement.

A duplicate bird is beforehand placed in the hollow die, which is then closed, and placed either upon the servante or in one of the secret pockets of the performer, who, having borrowed a hat, secretly slips the hollow
die into it, and places it on the table, mouth upwards. He now brings forward and offers for inspection the solid die, the cover, and the bird cage, placing the latter when returned upon his table, rather towards the hinder edge. "The die," he carelessly remarks, "I will place in this hat" (suiting the action to the word); "or, better still, I will place it upon this tray, so that you may be able to keep sight of it throughout the trick." So saying, he again takes out apparently the same, but really the hollow die, and places it on the tray with the movable side downwards, in such manner as to hook the turned-over portion of that side into the open edge of the corresponding square upon the tray, and places the cover over it. Handing the tray to his assistant, he proceeds to cause the disappearance of the bird cage from the handkerchief, as already described. This done, he advances to the tray and lifts the cover with the hollow die within it. first, however. sliding away cover


Fig. 173.
and die together towards the opposite end of the tray (see Fig. 173), and thereby leaving behind upon the center of the tray the movable slide, the interior of which is japanned so as to correspond with the center pattern of the tray, and thus does not attract attention.

The solid die, having remained in the hat, may readily be produced when required.
the floating coin.
As an after-dinner trick this little experiment will be hard to beat. The conjurer borrows a coin and places it easily and steadily on the surface of a finger bowl full of water, and on removing his hand the coin floats on the top of the liquid. Anyone else attempting the same trick will only be rewarded by seeing the coin immediately sink to the bottom of the bowl. In reality this experiment is not performed with the actual borrowed coin, but with one for which it has been substituted. This duplicate coin can be made in two different ways: the first by casting a fac-simile in solid aluminum, the second by procuring two half shells of a coin and soldering them together. Both these fakes will float, although the first one is to be recommended because it gives a true ring when sounded on the table, having an almost undetectable difference from the ring of a genuine piece of money, and, moreover, it is not generally known that aluminum will float. The working should now be plain. A coin is asked for, of the same value as the one that you have palmed. Taking one of the offered pieces, it must be exchanged for the fake, which is floated, and then changed back again before allowing someone else to try the same trick.

## THE MYSTIC AFGHAN BANDS.

This trick is supposed to have been invented and worked by the old East India fakirs, who presented it in such a seemingly innocent manner that its secret was not discovered until just lately. Whether or not that is true I do not know, but it is certainly one of the cleverest tricks, with such simple accessories, that has come under my observation.

The effect is as follows: Three paper bands are shown to the audience, each, apparently, without the slightest preparation; the performer takes the first band, and with a pair of scissors makes on incision in the center of the paper and cuts right round the band, when it naturally falls into two separate rings. Taking the second band,
the performer repeats the dividing operation, with the surprising result that instead of obtaining two separate hoops, this band is turned into two hoops interlinked together in a manner that prevents them from being separated without breaking one of the bands.

The third and last hoop is now taken and divided round the center in a similar manner to the previous ones, only this time instead of changing into two separate or interlinked hoops, it falls into one long band just double the size of what it was before being cut. By cutting it again in the same way it will change to a hoop four times the size it was when first exhibited.

The secret of this seeming marvel is, in reality, extremely simple, and costs nothing, while its effect is good enough to warrant its production upon the stage. It is worked as follows: To form the bands get three pieces of paper about twenty-four inches long by an inch wide. The first hoop is made by simply joining the two ends of the paper together, with the natural result that has been described. The second one, however, is constructed in a slightly different manner; before fastening the ends together, the paper must be given a couple of twists and then joined. For the third, only one twist is necessary, and when the last hoop has been fastened together you are ready to present the trick.

Further instructions are superfluous, as when the bands have been made the working is simplicity itself, and it is impossible to go wrong when presenting the trick.

For obvious reasons the bands cannot be passed round before the experiment, unless you are going to stick the ends together in front of the audience, but after the trick the hoops can be handed round without any fear of the secret being discovered.

## THE CROSS OF THE ORIENT.

For this splendid and mystifying trick you will require six ordinary cider straws. These straws must be fashioned into the form of a cross by being bound with
thread at the place where the cross piece joins the upright. As an additional security, and as a help to keep the cross perfectly flat, small pins are passed through the three straws at about half an inch from each extremity, as indicated in the first illustrations, Fig. 174.


Fig. 174.
Besides these straws, a tiny wooden plug, just large enough to fit inside the center upright straw, will be required. A bent needle point is fixed into this plug.

When desiring to present this illusion, the cross can be passed round for examination, and the plug secretly inserted on receiving it back; or, better still, the cross can
be fashioned with loose straws in front of the audience, who will then be quite satisfied that it is quite ordinary and unprepared.

Now the cross is laid flat upon the palm of one hand while the other makes passes round and above it. Suddenly the cross is seen to move, and slowly it rises until it stands perfectly erect; all this while you can pass your wand above and around the cross to prove that it is not suspended in any way by wires or strings.

The trick is worked in this manner: The cross with the plug in it is laid upon the fleshy part of the base of the fingers, so that the needle point is inserted into the flesh. The hand is now held in the position indicated in the illustration (see Fig. 175), with the fingers slightly bent upwards supporting the cross. Now gradually straighten your hand, and as the flesh tightens the cross will assume an upright position; by an almost imperccptible movement of the finger, the cross can be made to rise or fall at the performer's inclination. (See Fig. 176.) When desiring to conclude the experiment, it is always advisable to extract the plug, which can be dropped on the floor, and the cross handed once more for examination -without fear of the secret being discovered.


Fig. 175.


Fig. 176.

An effective method of performing a similar trick is
to fix a bent needle point into the end of a lead pencil. This is then manipulated in the same manner as the cross, with the exception that after the experiment the pencil is quietly put into your pocket. Then, pretending to hear someone remark that they would like to examine the article, take from your pocket a duplicate pencil, entirely unprepared, which is handed round, the spectators being under the impression that they are examining the pencil that was performed with.

The same effect is sometimes used with a pencil instead of the cross, in this case the needle being inserted at the end not pointed, a duplicate pencil being handed for inspection.

## THE LATEST CIGARETTE EVANISHMENT.

An effective impromptu trick causing the cigar or cigarrette that you are smoking to vanish may be welcome to my readers, and therefore I present the modus operandi.

Hold the cigarette in a perfectly natural position between the first and second fingers of the right hand, with the lighted end outwards, as shown in Fig. 177. Now place the left hand covering the back of right, as if you were going to remove the cigarette; but under cover of this movement the right hand fingers must be bent towards the palm until the unlighted end of the cigarette can be gripped by the base of the thumb. (See Fig. 178.) The fingers should then be straightened and


Fig. 177.
opened out, leaving the cigarette thumb-palmed, while the left hand is carried away as if containing the


Fig. 178.
cigarette, which can be made to vanish and be produced according to the performer's fancy.

STAGE TRICKS.
The present chapter will be devoted to such tricks as by reason of the cumbrousness or costliness of the apparatus required for them are, as a rule, exhibited only upon the`public stage. The stage performer may, if he pleases, avail himself of the aid of mechanical tables, electrical appliances, etc., which enable him to execute a class of tricks which are beyond the scope of an ordinary drawing-room performance, though the wealthy amateur will find no difficulty in converting his own drawingroom into a quasi-stage, and qualifying it for the presentation of the most elaborate illusions.

The leading items of apparatus in stage magic are mechanical tables. These are of various kinds, many being specially designed to assist in the performance of some one particular trick. Putting aside these, which will be separately noticed, stage tables may be broadly divided into two classes-trap table and piston table. In practice these classes are somewhat intermingled, for it is rather the rule than the exception for a stage table to be fitted with both traps and pistons.

Trap tables are such as are provided with one or more "traps," their object being, at the will of the operator,
to cause the disappearance of a given article into the interior of the table, or sometimes to produce or apparently change an article. The traps most generally used may be described as follows:

1. The Plain Trap.-This consists of a thin plate of metal, generally zinc, screwed down flush with the top of the table. In this, which we will call the surface plate, is cut a hole, generally circular, and from two to four inches in diameter, closed by a flap or door, which by the action of a spring hinge is pressed up level with the rest of the trap, though it instantly yields to pressure from above, again rising as soon as such pressure is removed. Figs. 179 and 180 represent the trap as seen detached from the table, Fig. 179 exhibiting its under side. $a$ is the circular flap, $b b$ the spring hinge, $c$ a little bolt by means of which the trap may be fastened at pleasure, and which is worked by a pin projecting upwards through a slot in the surface plate, and through the cloth which covers the table; $d$ is a small flat piece of metal, screwed to the under side of the flap $a$, and acting as a "stop" to prevent the flap being forced by the action of the spring above the level of the surfaceplate. The "mountings" of the trap are generally brass,


Fig. 179.


Fig. 180. and attached to the zinc by screws. A brass eyelet, $e$, is sometimes soldered to the center of the under side of the flap. To this is attached a cord, which may hang down ready to the performer's hand at the back of the
table, or may be carried down a gruove in one of the hinder legs, and either terminate in a pedal (to be pressed by the foot of the performer) or be continucd behind the scenes within reach of the hand of the assistant. The mode of working the trap is as follows: Any small article, being placed on it, is covered over (either with an ornamental cover or with a simple handkerchief). The cord being gently pulled by either of the means above mentioned, the trap opens, and the article falls into the body of the table. As soon as the pull is relaxed, the flap again rises and closes the opening. Where a cord is not used, the performer gets rid of the article by direct pressure on the trap, or the article upon it, with the one hand, while with the other he veils the opening in the table.
2. The "Wrist" or "Pressure" Trap.-With this form of trap the use of a cord is unnecessary, the trap being worked from the surface of the table, by pressure upon a particular spot. The manner of its construction will become clear upon an inspection of Figs. 181, 182. Fig. 181 represents the under side of the trap; $\boldsymbol{a}$ is the flap, working upon a spring hinge $b b$, as already explained in the case of the plain trap; $c c$ is an oblong piece of metal, cut out of and lying flush with the sur-face-plate, and working upon an ordinary hinge at $d$.


Fig. 181.


Fig. 182.

When $c$ is pressed down the cross piece $e$ which is soldered to it presses down the lever $f$, and this in turn acting upon the shorter lever $g$, which is fixed at right angles to the rod upon which the flap $a$ is hinged, causes the latter to open.

The mode of using the wrist trap is as follows: The performer has occasion, we will suppose, to cause the disappearance of an orange, as for instance in the "Bran and Orange" trick heretofore described. Placing the orange upon the flap $a$, he places both hands round it as though to pick it up between them. (See Fig. 183.) In this position the under side of the hand furthest from the audience (see Fig. 184, showing the right hand removed) is just over $c$, and pressing gently upon it, causes the flap to open, and the orange to fall through; the position of the hands completely veiling the operation. The operator now leaves the table, still holding his hands as though having the orange between them, and after a due interval, brings them closer and closer together, at last showing that it has vanished.

The wrist trap is generally worked by the performer


Fig. 183.
standing at the side of the table, and the traps are therefore made right-handed and left-handed, according to the end at which they are intended to be placed, the rule being that $c$ must be so placed with reference


Fig. 184.
to $a$ as to be when in use under the hand furthest from the spectators. Fig. 185 illustrates this difference of make, to suit the one or the other end of the table.


Fig. 185.
3. The "Rabbit" or "Dove" Trap.-This, as its name indicates, is a trap for causing the disappearance of a rabbit or pigeon. The opening is in this case oval, measuring about eight inches by six, and closed by a double flap, divided down the middle. (Sre Fig. 186, representing the under side of the trap). It has no
string, the animal being simply pushed down through the trap under cover either of a second rabbit, or of a piece of paper in which the victim is supposed to be wrapped. As the rabbit trap requires considerable space, and, moreover, involves the necessity of some sort of an inclosure within the table to prevent an unexpected reappearance of the animal, it is a convenient plan to devote to it a small special table. This should be circular; about thirty-two inches in height, and sixteen to eighteen in diameter. The upper part of the table must form a circular wooden box, about eight inches in depth, with an opening behind it to get out the rabbit. The table may, like the principal table, have a servante behind it, which will greatly increase its utility.


Fig. 186.
The depth of the upper part may be concealed by a hanging fringe; the general appearance of the table (seen from the back) being as shown in Fig. 187. A table of this class makes a very pretty side table, and may be balanced on the opposite side of the stage by another of similar appearance, but designed for some different purpose.
The interior of the table should be well padded with wadding or hay, that the animal may not be hurt by its sudden descent.

Each of the traps above-mentioned should be so made as to be capable of being secured, when necessary, by a bolt, or there would be considerable risk of a trap giving way unexpectedly under any article carelessly placed on it. The mode of bolting, however, varies considerably. Some traps are fastened by little bolts on the under side, which, being only accessible from the inside of


Fig. 187.
the table, must be bolted or unbolted for good before the curtain rises, occasioning considerable embarrassment in the case of a slip of the memory. Others again are secured by means of long bolts or wire rods extending across the under surface of the top of the table, each terminating in a hook at the back, within reach of the performer's hand. A third, and, we think, the best, plan is to have the bolt (as shown in Figs. 179 and 180, and therein marked $c$ ) worked backwards and forwards by means of a little pin projecting upwards through the surface plate and the cloth of the table. By the adoption of this plan the performer is enabled to draw back the bolt with the finger-tip in the very act of placing the
article upon the trap. It will readily suggest itself to the reader that some provision must be made within the table for making the various articles drop noiselessly through the traps. The best plan of effecting this is to use what is called a "railway." This is a wooden frame just large enough to lie within the table, with a piece of black serge or alpaca stretched all over its under side. This is so placed within the table as to slope gently down to the level of the servante, with a fall of three or four inches. Any article dropped through a trap will not only fall noiselessly upon the surface of the stretched alpaca, but will immediately roll down the incline towards the servante, so that it is instantly accessible should the performer have occasion to reproduce the same article at a later stage of the trick.
4. "Changing" Traps.-The traps which we have hitherto discussed have only had the faculty of causing the disappearance of a given article. Those which we are about to describe will not only do this, but will, moreover, produce an article on the surface of the table where a moment previously there was nothing, or will replace a given object by another


Fig. 188.
The trap for this purpose is a somewhat complicated arrangement, of the appearance shown in Figs. 188 and 189. The surface-plate, $a$ a $a$, is oblong, measuring about twelve inches by six, with a circular opening $b b$ in the center. Below it are fixed vertically two brass cylinders $c$ and $d$, which are so arranged as to work backwards and forwards on a kind of railway efef,
in the direction of the length of the surface-plate, just so far in either direction as to bring $c$ or $d$ in turn immediately under $b$. The two cylinders are soldered together, so that the one cannot move without the other. If, therefore, the cylinders are drawn back to the utmost by means of one of the bent rods or handles $g h$, the cylin-


Fig. 189.
der $c$ will be below the opening $b$. (See Figs. 190, 191.) Each cylinder contains a brass piston, faced with zinc on its upper surface, and moved up and down by a lever attached at right angles to one or other of the iron handles $g h$ already mentioned; and working through a vertical slot in the side of the cylinder. A piece of


Fig. 190.


Fig. 191.
clock-spring, attached to the iron handle at the point of junction, gives the piston a gentle upward tendency, which is so regulated that if either of the cylinders be brought under the opening $b$, the piston belonging to that cylinder is made to rise into the opening, its upper surface resting just flush with that of $a \operatorname{a} a \quad a$. The piston of the forward cylinder $c$ is made to work very easily within it, so as to rise spontaneously by the action
of the spring; but that of the cylinder, $d$, for a reason which will presently appear, works a little more stiffly, so as to require a little assistance from the lever to make it rise into its proper position. The action of the handles $g h$ is outwards, in the direction of the arrows in Fig. 192, the movement of either handle in the direction so indicated drawing down the piston to which it belongs.

The handles further serve, as already mentioned, to move the cylinders backwards and forwards as may be required. It should, however, be noted that no backward or forward movement can take place so long as either of the pistons stops the opening $b$; but as soon as the piston is, by turning the proper handle, depressed ever so little below the level of the surface-plate, it no longer forms any obstacle to the movement. The trap is fixed in the table in such manner that the handles $g h$ shall be just within the opening at the back of the table, as shown in Fig. 192, and thus be within easy reach of the


Fig. 192.
performer's hands when standing behind it. We will suppose, for the sake of illustration, that the performer desires to shange an empty tumbler (of small size) to a full one. The trap is beforehand prepared by bringing the foremost cylinder $c$ under the opening $b$. The full glass is then placed on the top of the piston, which is then lowered gently downwards by means of the proper
handle, the glass sinking into the cylinder. The cylinders are now pushed forward, so that $d$ in turn comes under $b$, the piston being then moved up into its proper place, and so closing the opening. This is, of course, arranged before the curtain rises.

When the performer desires to perform the trick, he places the empty glass upon $b$, and conceals it with a cover of any kind. Standing carelessly behind the table, and keeping the attention of the audience occupied by any observations he may deem most appropriate for that purpose, he takes hold with his right hand of the handle $h$ and turns it outward, thereby lowering the empty glass into $d$. As soon as he feels that it will sink no further, he shifts his hand to the handle $a$, and therewith draws the cylinders back so as to bring $c$ under $b$, and then, by turning $g$, gently raises the full glass of water up through $b$ to the surface of the table. The reader will now perceive the reason why, as already mentioned, the piston in $d$ is made a little tight, so as to require the assistance of the handle to raise it into its position. It is necessary that this piston, when once depressed with the object to be changed, shall remain down while the hand is shifted from handle $h$ to handle $g$. If it were not made to work somewhat stiffly, the moment the handle $h$ was released the piston would instantly fly up again with the object upon it, thus neutralizing what had been already done. The cylinder $c$, which is to produce the substitute object, is not brought under $b$ until the hand of the performer is already on the handle belonging to it, and can thereby check its upward ascent as may be necessary.

It is obvious that the changing trap will be equally available to produce an object under an empty cover. The object to be produced will be placed in $c$ as above, the piston in $d$ going down empty, and that in $c$ rising with the object upon it.

The above are the traps in most frequent use, bul there are others designed for special purposes. Thus there is a trap for causing the disappearance of six or
eight half-dollars. Of course, the coins could be made to disappear through an ordinary trap, but they would cause a suggestive "chink" in their fall. The trap to which we are now referring (see Figs. 193 and 194) is designed to prevent this tell-tale sound, and to cause the half-dollars to disappear in perfect silence. The opening in the surface-plate is an inch and three-quarters in diameter, and is closed by a circular piston of brass or zinc, $a$, working up and down in a small brass cylinder $b$, and so arranged as to drop by its own weight to the bottom of the cylinder, save when kept up by a little lever catch at the side of the cylinder. A short pin $d$ attached to this catch projects upwards through a slot in the surface-plate, and stands up very slightly above the


Fig. 193.
cloth of the table. The disc $a$ being raised level with the surface-plate, and secured by means of the catch, six or eight half-dollars are placed on $a$. The performer, in making the motion of picking up the coins (with one hand), with the tip of the third finger pulls the pin $d$ towards him. This withdraws the catch, and $a$ instantly drops down to the bottom of the cylinder, carrying the coins with it. As soon as $a$ reaches its lowest point it draws down the pin $e$, thereby releasing a similar disc $f$, which, working laterally on a spring pivot at the edge of the opening, describes a semicircle, and assumes the position previously occupied by $a$, a portion of one side of the cylinder, at the top, being cut away to allow of its passage. Fig. 193 shows the trap in its first, and Fig. 194 in its second condition, the
latter being, for greater clearness, drawn in section. The apparatus is rather complicated, and it is almost hopeless to endeavor to render it clearly intelligible by description only. In the absence of this special trap, the same object may be nearly as well effected with an


Fig. 194.
ordinary trap by using half-dollars (be it remembered that it is always substitute coins which are made to disappear in this manner) which have been beeswaxed on both sides. A very slight pressure will cause a number of coins thus prepared to adhere together and form for the time being a solid mass, which will fall through the trap without causing any "clink."

We next come to-
Pistons.-These are appliances for working pieces of mechanical apparatus-as, for example, the Watch Target, the Card Star, the Demon's Head, etc., etc. A piston (see Figs. 195, 196) consists of a brass tube $a$, about five inches in length by five-eighths of an inch in diameter, with a collar at one end pierced with screwholes for affixing it to the under surface of the table. Within this tube works a wire rod, $b$, three-sixteenths of an inch thick, and terminating in a small round dise of brass, $c$, just large enough to work freely up and down the tube. A spiral spring, also of brass, keeps the rod down, unless when forced upwards by pulling a piece of whipcord, which is attached to the dise $c$, and thence passes up the tube, and over a small pulley, $d$,
which is soldered to the collar already mentioned. When this cord is pulled, $b$ is forced to rise, which it does to the extent of about two inches above the surface of the table (see Fig. 196), again sinking under the pressure of the spring as soon as the pull is relaxed. Each piston is screwed to the under surface of the top of the table, in which a small hole is bored, in order to allow of the upward passage of the piston rod. Where complicated mechanical pieces have to be worked, three, four, or more of these pistons are placed side by side. The cords are carried behind the scenes, either directly from the


Fig. 195.
Fig. 196.
back of the table, or down grooves in the legs, and through holes in the stage to the hiding place of the assistant. Where a single piston only is required, it may be made to work in the central pillar of a light gueridoń, or fancy table, such as shown in Fig. 197, the lightness and simplicity of the table, and the thinness of its top, apparently precluding all possibility of the presence of concealed mechanism. The cord may be made to pass down the center pillar, so as to be quite invisible to the audience.

The mechanical pieces worked by the agency of these pistons vary greatly in construction, but they are alike in one particular, viz., that they are set in motion by one or more vertical rods passing up the shaft or column on which they stand, and each terminating in a flat metal disc, or pedal, which receives the upward pressure of the piston. Fig. 198 shows the arrangement of the foot of a mechanical piece worked by one such rod only. Where three or four pedals are necessary, they are generally enclosed in a square wooden base, as in the case of the "Demon's Head."

Before quitting the subject of the tables used upon the stage, we must not omit to say a few words as to what


Fig. 197.


Fig. 198.
is called the "bellows'" table, though it is now comparstively little used. It was formerly (say forty or fifty years ago) the fashion among conjurers to use tables with drapery hanging to within a few inches of the floor. The table being, say, two feet seven inches high, this gave room for a box-like arrangement, of two feet deep, or thereabouts, within the body of the table. In this box, which was open at the back, was hidden an assistant, who worked the pistons, managed the traps, effected
necessary substitutions, etc., etc. Conjuring under such circumstances was very easy work. In 1845, however, Robert-Houdin gave his first public performance and one of the earliest of his reforms in the magic art was the suppression of the too suggestive drapery, and the substitution of tables of light and elegant form, allowing no possible room for the concealment of an assistant. A reaction set in in favor of the new fashion, which has ever since maintained its ground. The "bellows" table combines the apparent simplicity of the undraped table with the internal capacity of the old-fashioned draped article. There is a trick, formerly very popular as the wind-up of an entertainment, which consists of the magical disappearance of a youthful assistant, male or female. The subject of the trick, generally dressed in a page's costume, is made to mount upon a table, and is covered by a wicker cone, which being almost instantly removed, he or she has vanished. The table in this case is draped to within a few inches of the ground, but to show that no hidden receptacle is thereby concealed, the performer before commencing the trick lifts up the table-cloth, and shows that the top of the table is at most not more than two or three inches in thickness. The drapery is then again allowed to fall into position, and the trick proceeds. The table used in this trick is a bellows table, $i$. e., it has a double top, or rather two tops, one above the other. The upper one is a fixture, with a large wooden trap (opening upwards) in it, to allow of the passage of the person to be conjured away. The under top is movable, being in its normal condition pressed against the upper one by the action of four spiral springs (one in each leg of the table), but sinking down to nearly the depth of the cover under the weight of a person stepping upon it, and thus affording the requisite hiding place, in which the person remains until the fall of the curtain enables him or her to come forth with safety. Cloth is nailed between the two when closed, after the manner of the leather of a bellows; and from this circumstance the table derives its name.

Small round tables (for the disappearance of a rabbit, or the like) are sometimes made on the same principle. The following will be found a simple and convenient arrangement: Let the table be of the form shown in Fig. 199, and two feet seven inches high. Let the uppermost eight inches of the pillar be a plain cylinder a a. an inch and a half in diameter. Below this the


Fig. 199.
pillar may increase in size, and may be of an ornamental character. Take two circular boards of deal or mahog: any, each eighteen to twenty inches in diameter and five-eighths of an inch thick. In the center of one of them, $b$, cut a circular hole an inch and three-quarters in diameter. This will form the under side of the "bellows," the object being to allow the board to slide freely up and down on $a$ a. The other board, which we will call $c$, is screwed firmly onto the pillar to form the top of the table. Next take a strip of black alpaca, ten inches in width, and nail its opposite edges round $b$ and $c$, leaving a small space at one side to give access
to the interior. Tie a piece of cord elastic round the center of the alpaca, tightly enough to exercise a considerable degree of tension. Fix such traps as may be desired in $c$, and glue over it a fancy-patterned cloth, with a fringe or border hanging down nine or ten inches round the sides. The performer, before executing any trick with this table, may pointedly draw attention to the fact that it contains no drawer or other place of concealment. In doing this (see Fig. 200) he with one hand raises the lower board level with the upper (the action of the elastic drawing in the alpaca between the two), while with the other hand he raises the fringe, and shows, apparently. that the $\dagger \mathrm{f} p$ of the table is but a single board.


Fig. 200
The top of every conjuring table should be covered with woollen cloth, not only to prevent the clatter which would be occasioned by the placing of objects upon the
bare wood, but to conceal the presence of the traps and pistons. The cloth used should, for this latter reason, be of two colors, and of a tolerably intricate pattern, as the outline of the traps will be thereby rendered much less perceptible; indeed, if the pattern of the cloth be a favorable one for the purpose, the traps should be, by gas-light, absolutely invisible. The cloth should be glued over the top of the table after the manner of a card-table, the upper surface of the traps being first roughed slightly, to make the glue adhere to the metal. When the glue is thoroughly dry (but not until then) the cloth may be cut along the outline of the traps with a very sharp penknife, and small holes bored to allow of the upward passage of the piston rods. As it is necessary, in placing a mechanical piece upon the table, to do so exactly over the pistons, it is well to have a couple of wire points projecting upwards a quarter of an inch or so from the surface of the table, in such positions that if the piece of apparatus rests firmly against these (which the performer can tell instantly by feel) it must necessarily be in proper position.

Where "wrist"' traps are used, the cloth need not be cut round the little oblong slab marked $c$ in Figs. 181, 182 , but the cloth should be without glue over this particular spot, and for half an inch round it on either side. The cloth will by this arrangement be found, without cutting, to stretch sufficiently over $c$ to allow of the proper working of the trap.

Assuming that our stage appliances are complete, we will proceed to-

The Rabbit Trick.-The performer comes forward to the audience, and borrows a hat. He asks whether it is empty, and is answered that it is; but he, notwithstanding, finds something in it, which the owner is requested to take out. The article in question proves to be an egg. No sooner has this been removed than the performer discovers that there is still something in the hat, and immediately produces therefrom a live rabbit, quickly followed by a second. Not knowing what other use to
make of these, he proposes to pass one of them into the other. The audience decides which is to be the victim, and the performer, placing them side by side on the table, proceeds to roll them together, when one is found to have vanished, nobody knows when or how ; but the theory is that it has been swallowed by the remaining rabbit, to the (imaginary) increased fatness of which the performer draws special attention.

Having thus passed one rabbit into the other, the next step is to get it out again. To do this the performer calls for some bran, and his assistant immediately brings forward, and places on a table or chair, a huge glass goblet, twelve inches or thereabouts in height, filled to the brim with that commodity. The performer takes the borrowed hat and (after showing that it is empty) places it mouth upwards upon another table so as to be at some considerable distance from the goblet of bran. He then places a brass cover over the glass, first, however, taking up and scattering a handful of the bran to prove its genuineness. Taking the surviving rabbit, and holding it by the ears above the covered goblet, he orders the one swallowed to pass from it into the glass, at the same time stroking it down with the disengaged hand, as though to facilitate the process. He remarks, "You must excuse the comparative slowness of the operation, ladies and gentlemen, but the fact is, the second rabbit passes downwards in an impalpable powder, and, if I were not to take sufficient time, we might find that a leg or an ear had been omitted in the process, and the restored rabbit would be a cripple for life. I think we are pretty safe by this time, however. Thank you, Bunny; I need not trouble you any more.' So saying, he releases the visible rabbit, and on taking off the cover the bran is found to have disappeared, and the missing rabbit to have taken its place in the goblet; while on turning over the borrowed hat the vanished bran pours from it.

The reader who has duly followed our descriptions of the appliances employed in the magic art will have little
difficulty in solving the riddle of this trick. The performer first comes forward with an egg palmed in one hand, and with a small rabbit in an inner breastpocket on each side of his coat. The first step is the pretended finding of something (it is not stated what) in the hat. The owner is requested to take it out, and while all eyes are naturally turned to see what the article may prove to be, the performer, without apparent intention, presses the mouth of the hat with both hands to his breast, and tilts one of the rabbits into it. This is next produced, and in placing it on the ground at his feet, the performer brings the second rabbit in the same manner into the hat. When he undertakes to pass the one rabbit into the other, he places both upon the table which contains the rabbit-trap, and, standing sideways to the audience, pushes the hindmost, under cover of the other, through the trap. This particular rabbit is not again produced, the rabbit in the "bran glass," which has already been explained, being another as much like it as possible. It only remains to explain how the bran comes into the borrowed hat. This is effected by having a black alpaca bag filled with bran in one of the profondes or under the waistcoat of the performer. This bag is introduced into the hat after the manner of the goblets, and the bran having been allowed to run out, the bag is rolled up in the palm and so removed, the bran remaining, to be produced in due course.

It is obvious that the trick may be varied in many ways. The following is an effective modification: A rabbit having been produced by natural or supernatural means, is placed on the principal table (close to the hinder edge) and temporarily covered with a borrowed hat, while the performer goes in search of a sheet of paper, which, when obtained, he spreads upon a small side table. Lifting the hat slightly, he takes out the rabbit, and walking with it to the side table, rolls it up in the paper, making a somewhat bulky parcel. Coming forward with this to the audience, he turns toward the
principal table, and saying, "Now, ladies and gentlemen, if you watch me very closely, you will see the rabbit fly out of the paper, and back to the hat,' he crushes the paper together between his hands, and, tearing it, shows it empty, while on lifting the hat the rabbit is again found safely ensconced beneath it.

The ingenious reader will readily guess that duplicate rabbits are employed. One of them is placed under the hat, and remains there throughout the trick. A second, of similar appearance, is placed in a box or basket on the servante, immediately behind the hat. This box has no lid, but is pushed until wanted just within the interior of the table, the top of which prevents the rabbit making a premature appearance. The performer, slightly raising the hat, as though to take the rabbit from under it, lifts up this second rabbit, which the spectators naturally believe to be the same which they have already seen, and in apparently wrapping it in paper on the side table, presses it, under cover of the paper, through the rabbit trap, and screws up the ends of the paper (which should be rather stiff) in such manner as to make it appear that the animal is still inside it. The same trick may be performed with a pigeon with equally good effect and considerably less difficulty.

The Fairy Star.-This is one of the most telling of stage card tricks. The performer, coming forward with a pack of cards, allows six to be chosen. His assistant meanwhile brings forward and places on a table a handsome gilt "star" on a stand. The performer, collecting the chosen cards, places them in his pistol and fires them at the star, when, at the moment of the explosion, they are seen to attach themselves one to each of its points, as in Fig. 201.

The principal point to be explained is the construction of the star. Behind each 'ray'' is a movable arm, working on a spring hinge at about two inches' distance from the point, and carrying a spring clip at its outer end wherein to insert a card. (See Fig. 202, rep-
resenting a back view of the apparatus.) A card being placed in each of the clips, the six arms, with the cards attached to them, are folded down one by one behind the center of the star, which is just large enough to conceal them. Each card, as folded, holds down the one which has preceded it. When the last card is folded down, the free end of a movable button or lever at the top of the pillar on which the star rests is so turned as


Fig. 201.


Fig. 202.
to press upon the arm which holds the card last folded, and thus to keep it and the five other cards preceding it in place. This button, however, is so arranged as to be instantly withdrawn upon an upward movement being
communicated to a wire rod which passes up the center of the pillar and terminates in a flat disc of metal at its foot. The apparatus, thus prepared, is placed immediately over one of the pistons of the table. At the moment of firing the pistol the cord of the piston is pulled. The piston rises, pressing up the dise and wire rod, the button is withdrawn, and the arms, being thereby released, revert to their natural position, exhibiting a card upon each point of the star.

There are many little differences of detail between the "stars', of rival manufacturers, but the foregoing may be taken to represent the general principle of all. Some have the addition of a rose in the center, which opens simultaneously with the appearance of the cards, and discloses a watch, borrowed a moment previously from one of the spectators.

The mode of working the trick varies a good deal in the hands of different performers. The most legitimate method is to "force" cards corresponding to those already behind the star, and this method has the advantage of allowing the star to be brought in and placed upon the table before commencing the trick; and as it is not again touched by the performer or his assistant, the appearance on its points of (apparently) the identical cards just chosen seems really miraculous.

To be able, however, to force six cards in succession with ease and certainty demands a more than average degree of dexterity on the part of the performer; and a "forcing jack" is hardly available where more than three, or at most four cards have to be forced. Various expedients have been adopted to get over this difficulty. Some professors simply collect, or allow their assistant to collect, the cards which have been drawn, and forthwith secretly exchange them for the same number of others. These latter are laid upon the table, and subsequently placed in the pistol, while the originals are carried off by the assistant behind the scenes, and there attached to the star, which is then for the first time brought forward. Others, again, use what are called
"longs and shorts"-i. e., two packs of cards, one of which has a small portion shaved off its length or breadth. The performer offers the uncut pack for the company to draw from, letting each person retain his card, and then secretly exchanging the pack for the shortened pack, he requests each of the drawers (singly) to replace his card, and to shuffle freely. The substituted pack being a shade smaller than the returned card, the latter becomes a "long'" card, and therefore, however well the cards are shuffled, the performer is able, with absolute certainty, to cut at that particular card. "Here is your card," he remarks, "the knave of diamonds." As he names the card, the assistant behind the scenes, takes the cue, and attaches a corresponding card to the star. The card named is removed from the pack and laid upon the table, in order to be subsequently placed in the pistol, and a second drawn card is returned and shuffled with the like result.

The star may, in the absence of a mechanical table, be placed on the hand, the dise being pushed up by the fingers. Some stars have a movable stud at the side of the pillar, connected with the rod within, to facilitate this mode of working the trick.

The Card Bouquet.-This is a trick very similar in effect to that last described, though differing a little as to the manner of the appearance of the cards. Six cards are drawn and placed in a pistol, as in the last case. A vase (apparently of china, but really of tin, japanned), containing a handsome bouquet, is placed upon the table, and, at the instant of firing, the six cards appear ranged in a semicircle above the flowers in the bouquet. (See Fig. 203.) In this instance, the cards are attached to the branches of a sort of fan, so constructed as to open of its own accord, unless forcibly kept closed. The cards having been duly placed in position, this fan is shut, and pressed downwards through a narrow opening in the lower part of the vase, the pressure of whose sides keeps it, for the time being, closed. When pressed upwards by the action of a piston, the fan rises above the level of
the flowers, and at the same time opens and exhibits the aix cards.


Fig. 203.
The vase is sometimes made with a second pedal, to produce a second series of six cards. In this case twelve cards are drawn; six of these first appear, and then, at the command of the performer, these six suddenly change to the other six. This is effected as follows: The twelve cards are pasted back to back in couples. Each of the six arms which hold the cards is so arranged as to be capable of being turned half round (after the manner of the center of the "watch target"), in which position it is retained by a catch, flying back, however, to its old position as soon as the catch is released. The six arms are each turned round in this manner, bringing what are naturally the hindmost cards in front. The movement of the first lever exhibits these cards; that of the second lever releases the six catches, when the arms instantly fly round and reveal the other six cards, into which those first exhibited appear to have changed.

The Demon's Head.-This is a large and effective piece of apparatus, standing about twenty-eight inches from the table. It consists of a grotesque papier mache
head, representing that of a demon or satyr, and painted according to taste. It is supported by an ornamenral brass column, about an inch in diameter, springing from a velvet-covered base nine inches square and four and a half high. (See Fig. 204.) At the will of the operator, the head rolls its eyes and opens its mouth, and is sometimes made available in this way to answer questions; the rolling of the eyes being taken to signify a negative, and the opening of the mouth an affirmative. In addi.


Fig. 204.


Fig. 205.
tion to these accomplishments; the demon will indicate chosen cards in the following manner: Five cards having been selected, are returned to the pack, which, after being duly shuffled, is placed in the demon's mouth. The performer now orders him to produce the chosen cards, when two of them fly from his mouth, and the other two spring up between his horns.


Fig. 206.
The head owes its movements to the action of three different sets of levers, each terminating in a disc or pedal immediately over a circular hole in the under side of the base. The apparatus is so placed upon the table that these openings correspond in position with the same number of pistons. Fig. 205 is a general view of the internal mechanism, the back of the head being removed (as in fact it may be in the original) to give access
thereto. Fig. 206 exhibits (as seen from the rear) the action of the left-hand group of levers, producing the movement of the eyes. When an upward pressure is applied to the foot of the lever $a$, it causes the upper $\operatorname{arm} c d$ of the elbow piece $b c d$ to describe an arc of about a quarter of an inch from left to right, thereby communicating a corresponding movement to the pair of levers $e e$, working on the pivots $f f$; and, as a necessary consequence, a reverse movement to the opposite


Fig. 207.
ends of such levers, on which are fixed the eyes $g g$. As soon as the upward pressure is removed, the spring $h$, a spiral coil of fine brass wire, draws back the levers $e e$, and with them the eyes, to their original position. To produce a continuous rolling, the pressure of the piston is applied and relaxed alternately, the effect to the spectator being as if the figure looked first to the left and then to the right, although, as already explained, the active movement of the levers is in the one direction only, the normal position of the eyes being in the other direction.

Fig. 207 shows the action of the second or middle group of levers, serving to produce the opening of the mouth. The chin of the figure consists of a solid block of wood $i$ working on a pivot $j$ in each cheek, and so counterweighted that its normal position is as in Fig. 207, thus keeping the mouth closed. When, however, the shaft $k$ is raised by pressure from below, the lever $l$ rises with it, and proportionately depresses the opposite end of the block, $i$, thereby opening the mouth. As soon as the pressure is removed, the block falls back into its original position, and the mouth closes.

The third or right-hand set of levers is a little more complex in its operation, inasmuch as it has to perform a double office, the expulsion of two cards from the mouth and the elevation of two others at the top of the head. The cards to be shot from the mouth are placed beforehand (from the front) in the receptacle indicated in Fig. 207 by the letters $m m$, and a "plan" of which is given in Fig. 208, and a back view in Fig. 209. $m m$ is a flat piece of tin, its edges folded over so as to form a receptacle or platform just capable of holding easily a couple of cards; $n$ is a spring, which, when the cards are put in position, is "set" by being drawn back into the notch of the catch $o$. When an upward pressure is exerted by the shaft $p p$ on the elbow-piece $q q q$, the latter pressing against $r$ draws back this catch and releases the spring, which forthwith shoots out the two cards from the mouth. The other two cards are in-
serted in the clip $s$ (see Fig. 209), consisting of two small pieces of sheet brass soldered to the end of the rod $t$, which works up and down piston-wise in the tube $u u$. Within the tube is a spiral spring which impels $s$ upwards level with the top of the head, across which a slit or opening is made to allow the passage of the cards. This portion of the apparatus is set by placing the two cards in the clip, and then drawing down the piston-rod by the cross-piece $v$, which is riveted thereto, and hitch-


Fig. 208.
Fig. 209.
ing such cross-piece under the catch $u$. The upward movement of the shaft $p$, at the same time that it draws back the catch $o$, also draws back the catch $w$, thereby releasing $v$ and allowing the $\operatorname{clip} s$ and the two cards therein to spring upward, and appear at the top of the head.

It is hardly necessary to remark that the cards chosen by the audience are "forced" cards, of which duplicates have beforehand been placed in the head.

The Magic Picture Frame.-The performer, always borrowing, borrows this time a lady's handkerchief, and any small articles-say a watch and a glove. These latter he rolls up in the handkerchief, and places the ball or bundle made upon the table. He looks about in search of his magic pistol, which is immediately afterwards brought in by the assistant. The performer places the handkerchief, etc., in the pistol, the assistant meanwhile bringing forward and placing on the table a handsome picture-frame, mounted on a stand. It contains no picture, the space which the picture should occupy being filled by a board covered with black cloth. The performer, standing at the farthest available distance from the frame, takes aim at it, and fires, when the borrowed articles are seen instantly to attach themselves to the black background, whence, being removed, they are handed to the owners for identification.

The picture-frame, which is of the appearance shown in Fig. 210, and stands altogether about two feet high, is backed by a sort of wooden box, an inch and a half in depth, and a little smaller than the external measurement of the frame. The inside of this box is covered with black cloth, and in fact forms the true back of the frame; and it is upon this that the borrowed objects are fastened by means of small sharp hooks, the back opening on hinges to facilitate the doing so. An ordinary spring roller-blind, also of black cloth, works up and down just behind the opening of the frame. We have said an ordinary spring blind, but, in truth, the usual check at the side is wanting, and the blind therefore, if
drawn down, instantly flies up again, unless held down from below. The blind terminates at bottom in a square lath, five-eighths of an inch in length by three-eighths in thickness, with a wire pin, half-an-inch in length, projecting at right angles from its hinder side. The ends of this lath, when the blind is drawn down. sink into two


Fig. 210.
upright grooves, one at each side of the frame, thereby keeping the latter square, and the pin in a horizontal position. The catch $a$ (an enlarged view of which is shown in Figs. 211, 212) is now hooked over the pin, as in Fig. 211, thus holding the blind down. A wire rod, attached to this catch, passes down the column on which the frame stands, and terminates in the usual dise or pedal at bottom. When an upward pressure is applied to this, the catch assumes the position shown in Fig. 212 , thereby releasing the pin, and allowing the blind to fly up. The blind is represented in Fig. 210 in the act of flying up, but, in truth, its rise is so rapid as to be practically invisible.


Fig. 211.


Fig. 212.

The sudden appearance of the articles in the frame is thus sufficiently accounted for, but it remains to be explained in what manner they were placed there, as they have (apparently) never been removed from the sight of the audience. It will be remembered that the smaller articles were rolled up in the handkerchief, which was then placed on the table. In truth, what is placed on the table is a substitute handkerchief, similarly rolled up, while the original is dropped on the servante, and carried off by the assistant when he brings the pistol. Having thus obtained possession of the articles, he quickly places them in the frame, and draws down and fastens the blind. This done, he closes the door at the back, and brings forward the frame, taking care to place it immediately over one of the pistons of the table. As the pistol is fired he pulls the cord, the blind flies up, and the articles are revealed.

The Flying Watches and the Broken Plate.-This is a rather more elaborate form of the trick last described. The performer collects three or four watches from the company, the assistant, meanwhile, being sent to fetch a plate. On his return, the watches are laid one by one on the plate, and he is ordered to place them on the table. In attempting to do so he trips and falls, the watches being scattered in all directions, and the plate being smashed to pieces. The performer reprimands the offender for his carelessness, and picking up the watches, finds that they are injured in various ways. After a momentary hesitation, he hits on a way of repairing the damage. Calling for his pistol, he drops the battered watches and the fragments of the plate into it, keeping all down with a wad of newspaper. The assistant now brings in the picture-frame, as in the last trick, and the performer, taking good aim, fires at it. At the instant of firing, the plate is seen restored in the center of the frame, with the borrowed watches encircling it. The performer advances to remove and return them to the owners, but is (or appears to be) thunderstruck at perceiving that the restoration is incomplete, a large piece being missing from the plate. (See Fig. 213.) After a moment's reflection, he discovers the cause of the defect, for, looking about upon the stage, he finds and picks up a fragment which he had overlooked when he put the rest in the pistol, and which consequently is wanting in the restored plate. He apologizes for the oversight, and proceeds to remedy it. Standing at the furthest portion of the stage, he makes the motion of throwing the recovered fragment towards the frame. It is seen to vanish from his hand, and the plate at the same moment appears whole as at first. The plate is removed, and with the restored watches handed to the audience for examination, when the closest inspection fails to discover any trace of fracture.

The first point to be explained is the mode in which the assistant obtains possession of the borrowed watches, in order to place them in the frame. The watches are
collected by the performer in a changing apparatus. In this is placed beforehand a like number of dummy watches, and it is these latter which are placed on the plate, and meet the predestined downfall. The apparatus being left apparently empty, no suspicion is


Fig. 213.
excited by the fact that the assistant, when sent to fetch the pistol or the frame, carries it off as no longer needed.

The sudden restoration of the piece apparently want-
ing in the plate, though marvelous to the uninitiated, is really effected by very simple means. The restored plate is throughout whole and unbroken, but the effect of a piece wanting is produced by covering one portion of its outer rim with an angular piece of black velvet or alpaca, similar to that which covers the back of the frame. The illusive effect is perfect. The frame is provided with two pedals, the first releasing the black blind in front of the plate and watches, and the second serving to withdraw the angular piece of cloth already mentioned, and thus (apparently) effecting the complete restoration of the plate. The pretended disappearance of the broken piece from the hand at the moment of throwing is effected by taking it first in the left hand, and thence apparently transferring it to the right by the tourniquet, so that when the right hand is opened in the act of throwing, it is naturally found empty.

The Cabinet of Proteus.-This is another adaptation of the principle on which the Sphinx illusion is founded. It is the joint invention of Messrs. Pepper and Tobin, by whom it was patented in 1865. The first steps towards a patent for the Sphinx were also taken in the same year, but the latter invention never proceeded beyond provisional protection. The Cabinet of Proteus is a wooden closet, seven to eight feet in height by four or five feet square, supported on short legs, so as to exclude the idea of any communication with the floor: (See Fig. 214.) It has folding doors, and an upright pillar extends from top to bottom of the interior, at about the center of the cabinet. At the top of this pillar, in front, is fixed a lamp, so that the whole of the interior is brightly illuminated.

The cabinet may be used in various ways. One of the most striking is as follows: The folding doors are opened, disclosing the interior perfectly empty. (See Fig. 215.) The exhibitor directs his assistant to walk into the cabinet. He does so, and the doors are closed. Meanwhile, a couple of gentlemen, selected by the audi-
ence, are invited to stand behind or beside the cabinet, and see that no one obtains ingress or egress by any secret opening. Notwithstanding these precautions, when the doors are again opened, the assistant is found to have vanished, and another person, different in dress, in stat-


Fig. 214.
ure, and in complexion, is found in his place. This person steps forth, makes his bow and retires. Again the cabinet, now empty, is closed, and after an interval of a few moments, again opened. This time a human skeleton is found to occupy the vacant space. This ghastly object having been removed, and the door having been once more closed and opened, another person, say, a lady, appears. This person having retired, the doors are again closed; and when they are again opened, the person who first entered is once more found within. A committee from the audience are now invited to examine the cabinet within and without, but all their scrutiny cannot detect any hidden space, even sufficient to conceal a mouse.

An examination of Fig. 216, representing a ground plan of the cabinet, will make plain the seeming mystery. A moveable flap, $a b$, working on hinges at $b$, extends


Fig. 215.
from top to bottom of each side, resting when thrown open against the post $c$ in the middle, and thus enclosing a triangular space at the back of the cabinet. The outer surfaces of these flaps (i.e., the surfaces exposed


Fig. 216.
when they are folded back against the sides of the cabinet) are, like the rest of the interior, covered with wall paper, of a crimson or other dark color. The opposite sides of the flaps are of looking-glass, and when the flaps are folded back against the posts, reflect the surfaces against which they previously rested, and which are covered with paper of the same pattern as the rest. The effect to the eye of the spectator is that of a perfectly empty chamber, though, as we have seen, there is in reality an enclosed triangular space behind the post. This is capable of containing two or three persons, and here it is that the persons and things intended to appear in succession are concealed. The assistant, entering in sight of the audience, changes places, as soon as the door is closed, with one of the other persons. This person having retired, and the door again being closed, those who are still within plare the skeleton in position in front of the post, and again retire to their hiding-place. When all the rest have appeared, the person who first entered presses the flaps against the sides of the cabinet, against which they are retained by a spring lock on each side, and the public may then safely be admitted, as their closest inspection cannot possibly discover the secret.

The Broken Mirror.-This is another very effective piece of apparatus for the restoration of a "smashed" watch. It is an oval mirror on pillar and foot, as shown in Fig. 217, standing about 18 inches high, and used after the manner of a target. The performer having placed in his pistol the (supposed) fragments of a borrowed watch, which has been dealt with after the usual manner of conjurers with other people's property, fires at the mirror, which has a moment previously been brought in and placed on his.table. At the moment of explosion the glass is shattered to fragments, and in the center of the fracture is seen the borrowed watch, whole and uninjured.

There are two forms of watch mirror. One is on the principle of the old "watch target." The glass in this
case represents the bull's eye of the target. It has two faces, one whole and unbroken, the other "starred" in the center, as though by a sudden blow. In the middle of the "starred" surface is a minute hook, to which the borrowed watch is attached. When the apparatus is set for use, this starred side is brought to the rear. At the


Fig. 217.
moment of firing, a pull or piston releases a catch. The double glass makes a semi-revolution, under the impulsion of a spring, the unbroken surface, with the suspended watch, coming to the front in its place.

The mirror which I am about to describe, though even simpler in construction, is a far more perfect appliance.

The glass is not merely apparently starred, but is actually broken at the moment of explosion. The fragments fall, visibly and audibly, upon the table, and in the middle of the ruin caused by the shot, the watch stands out boldly against the velvet-covered backboard of the mirror.

The apparent mystery will be cleared up by an inspection of Fig. 218. It will seem that in the rear of the pillar hangs a peculiarly constructed hammer, con-


Fig. 218.
sisting of a bullet soldered on to the end of the longer arm of a little wire lever, working on a pivot at the upper end of the column. The striking face of the ham-
mer is armed with a steel point. To the shorter arm of the lever is attached a thin but strong silk cord, scarcely stouter than thread, passing down the pillar, and out over a friction-pulley at bottom. A pull upon this causes the hammer to rise as shown by the dotted line. The "glass" of the mirror is what is known as "patent plate," which may be procured as thin as one-sixteenth of an inch, and it is this very thin glass which is used for the purpose of the trick, a fresh glass being sacrificed on each occasion. The glass is backed with an oval of stout wire, exactly fitting the frame (which has a turnbutton at top and bottom to secure it) and covered with


Fig. 219.
stretched black velvet, in two parts, as shown in Fig. 219, with the upper portion lapping over the lower, though at a little distance the continuity appears to be unbroken. From the upper part of the oval (on the side of the velvet which, in use, is next the glass) depends a wire hook, to which the watch is destined to be suspended.

To prepare the apparatus for use a glass is placed in the frame, and kept in position by the insertion of the velvet-covered wire frame behind it. After the watch has been "passed off," the assistant introduces it between the two halves of the velvet, and attaches it to the hook. The apparatus is then brought forward and placed on the performer's table, a steel point in each of its feet being pressed into the wood, and holding it firmly in position. The silk thread is allowed to trail. so that its free end shall be behind the scenes.

The working of the trick will now be obvious. At the moment of firing, the assistant pulls the thread sharply. The little hammer flies up, and strikes the back of the glass, through the velvet, at a point about an inch below the suspended watch. The glass is bound to "go," and the effect of the steel point in the face of the hammerhead is usually to make a nice neat fracture, as shown in Fig. 220, with the watch suspended pretty nearly in its center.


Fig. 220.
The Card in the Candle.-This is another very effective pistol trick. A card having been selected and torn up, the fragments are placed in a pistol, and fired
at a lighted candle on the performer's table. At the moment of firing the card suddenly appears, fully restored, at the top of the candle, in the place previously occupied by the wick and flame. (See Fig. 221.)


Fig. 221.

The secret lies, as will have been surmised, in the construction of the candle and candlestick. The former is in reality a metal tube, japanned in imitation of the regular paraffine article, with a liitle cup half an inch deep at the top, for the reception of a genuine candleend. This cup is hinged to the upper end of the tube, so as to be thrown back, like the lid of a box, when required. The "card"' is mechanical, being arranged so as to fold in three, vertically, though forced by india-rubber springs to again expand whenever permitted to do so. It is placed in a clip forming the upper portion of a wire rod passing up the candlestick and candle, and normally forced upwards by the action of a spiral spring. The card, having been placed in this clip, is folded and pushed down into the candle, a spring-trigger in the foot holding it down. The little cup-lid at top is then closed, and the candle lighted. The candle: stick is placed upon the table immediately above a piston, which at the right moment exerts pressure on the trigger. The catch is withdrawn, and the rod flies up, urging the card before it. The little cup gives way, and falls to the rear, and the card, as it clears the candle, expands to its normal width. The operation is so instantaneous that not even the quickest eye can follow it, and it seems impossible that a card $21 / 4$ inches wide should have been hidden within a candle little more than onethird of that diameter.

In some "candles" the card remains a fixture in the clip, the whole being carried off bodily by the assistant; but there is no reason that it should be so. If. however, the card be removed, the performer must, as he does this with the thumb and first and second fingers. with the third tilt back the little cup-lid into its normal position. The folded card must of course be changed for an unprepared one before it can be offered for examination.

The card used should be a court card, as the greater intricacy of the patter tends to conceal the fact that it is in three sections.

- The Bewitched Skull and Talking Hand.-These are in reality two forms of the same illusion. We will commence with the skull.
The effect of the trick is as follows: A couple of openbacked chairs are placed sideways to the audience, back to back, about two feet apart. Upon these, resting on


Fig. 222.
the backs, is a sheet of plate-glass, two feet six inches in length, and almost fifteen inches in breadth. The chairs and glass are usually placed in position before the curtain rises, but in order to show that there is no deception the performer takes up the piece of glass and brings it forward for examination, as also a papier mache skull, life-size, and closely resembling the real article. It has the lower jaw complete, and a broad curved band of hoop-iron, painted to match the rest, extends from below the jaw to the lower part of the occiput. This band forms a rest for the skull, so that when placed on a smooth surface, it stands fairly upright, though so nearly in equilibrio as to rock freely from back to front (see Fig. 222).

Having replaced the sheet of glass in position across the backs of the chairs, the performer places the skull upon it, facing the audience (see Fig. 223). Withdraw-
ing to a little distance, he proceeds to put questions to it, which the skull answers by nods, one for "No," and three for "Yes," after the approved spiritualistic fashion. Numbers are indicated by nodding the requisite number of times.

The answers are as a rule of a simple character, such as revealing the numbers of a pair of dice ("loaded," and changed as may be necessary) thrown into a hat, naming the suit and value of a drawn card, etc. "Fortune telling questions' may also be asked, and will be,


Fig. 223.
if not always correctly, at any rate intelligently answered. When the little comedy is over, the performer again brings forward the skull and sheet of glass and offers them for examination. If any skeptical gentleman ventures to suspect that the two chairs have any con.nection with the platform, or play any occult part, electrical, mechanical or otherwise, he is invited to come forward and inspect them, but the closest scrutiny will not reveal anything of a suspicious character.

The secret, like that of many of the best of magical illusions, lies in a simple black silk thread, which, against a moderately dark background, is quite invisible. The silk is threaded at the outset through the open backs of the two chairs, each end passing behind the scenes, where they are united in the hand of the assistant. When the performer replaces the sheet of plate-glass upon the chairs after examination, he lifts the thread so that it may lie along the surface of the glass, passing from end to end, or nearly, close to its under edge. The middle of the thread as it thus lies on the glass bears a little pellet of wax, and this, in placing the skull on the glass, the performer presses against its hinder part. The thread has hitherto been left free by the assistant, but if now slightly tautened by a pull on the double line, the skull is tilted slightly backward. On the pull being again relaxed, it drops back into its normal position, giving the effect of a nod. This is the whole of the mystery. By pulling each end of the thread alternately, to a scarcely perceptible extent, the skull may be made to turn to right or left. When the trick is over, and the performer again offers the skull for examination, the assistant releases one end of the thread, and draws it away by the other. As the thread constitutes the whole working machinery, the skull, glass and chairs may be examined with the utmost freedom, without any risk of inconvenient disclosures.
The talking hand is worked on the same principle, but even more simply. The 'hand"' is a wax model of the natural member, terminating just above the wrist with a cuff of black velvet (see Fig. 224). In the hollow of the palm is a projecting boss, which, when the hand is placed palm downward on any flat surface, elevates the wrist portion about an inch. The arrangement of the silk thread is the same as in the case of the skull, save that the pellet of wax is not necessary. The performer, having duly offered the hand for examination and replaced it on the sheet of glass, raises the silk thread so that it shall lie just across the elevated wrist. The tight-
ening of the thread depresses this, and consequently raises the fingers about a couple of inches, the whol hand forming a lever, with the boss above mentioned for


Fig. 224.
its fulcrum. The relaxation of the thread causes the fingers to sink down again with an audible rap; and answers to questions may be rapped out accordingly. When the trick is at an end, the concealed assistant releases one end of the thread, and draws it away by the other, thereby removing all possible clue to the secret.

The Mystic Flight.-The performer, attired in an evening dress suit, introduces to the audience his liveried assistant, whom he dresses in a long flowing robe which entirely conceals him from view. A glass-topped table standing in the center of the stage is mounted by the peformer and screens are pulled all around him. To show that he is still there both hands are thrust out over the top of screen and they are held in this position throughout the entire experiment. The robed assistant now fires a revolver at the screens, the hands are immediately withdrawn, the curtains pulled away, and there, standing on the table, is the very assistant who
had just fired the revolver. But what has become of the performer? This perfectly natural question is answered by the man in the cloak who is still standing with the smoking pistol in his hand; throwing off the long cloak in which the assistant had been dressed, there stands revealed to the astonished audience the performer


Fig. 225.
himself, attired in the same clothes as when he was perched upon the table.

So much for the effect, which is indeed truly marvelous. We will now explain the modus operandi whereby the illusion can be performed.

Glancing at our first illustration, Fig. 225, the reader will get an idea as to how the evanishment of the performer is effected; but let us commence at the beginning and explain the details thoroughly.

The table is devoid of prepar ition and is placed in the center of the stage, nearer the back than the footlights,
for reasons that are obvious. To prove that the floor contains no traps, electric lights or candles can be placed underneath the table if desired, but as the curtains only descend to within two feet from the ground this precaution is not a necessity, as the audience can see below and right through to the back of the stage. Although the floor contains no trap, the stage back is utilized in its stead, the cavity being artfully masked by an oilpainting which is hanging on the wall, presumably for ornamentation. Behind the screen this cannot be seen, so an assistant stationed behind the scenes lowers the canvas, and pushes through the empty frame a wooden plank which rests its other end upon the table where the performer is standing. Because of this, the back screen is only half the depth of the front and two side ones. Along this'plank, then, the professor crawls, and in the act of disappearing he is seen in our drawing. (See Fig. 225.) After having made his way through the aperture, he quickly dons a costume exactly similar to the one in which he had previously dressed his assistant; this should be made out of coarse sacking material, as it is possible to see quite plainly through the mesh; an ordinary sack with two sleeves will answer the purpose admirably if no more elaborate costume is obtainable. When dressed in this manner, the performer stations himself in the wings, with a revolver in his hand.

All this while the idea that he is not behind the screen has never crossed the mind of an average audience because they see his hands protruding over the top; in reality they only see two dummy hands, which were previously concealed in a pocket on the inside of the front screen, or they can be hidden upon the person. They are fashioned out of white dress gloves, duplicates of those which the performer is wearing, so that if they are hooked on to the top of the screen, nobody can tell the difference.

In order to allow the performer plenty of time to get out of screen and into the wings, the assistant makes a little speech similar to the following:
"Now, Prof. Jones, where are you?"
Prof. J. "Here."
Asst. "Show the audience your hands."
Prof. J. sticks his gloved hands out and moves them about, immediately withdrawing them.

Asst. "No, keep them outside so that the audience can see you are still there.

Prof. J. now substitutes the dummy hands and fixes them into the desired position; leaving them there he now gets away as quickly as possible, the assistant meanwhile occupying the audience's attention by saying: "Ladies and gentlemen, you have all seen Professor Jones go behind the screen, and you can see above and below, and also all around the curtains; you can also see


Fig. 226.
the professor's hands, which please watch and see that he does not remove them. I shall fire at the screen and immediately it will be withdrawn.

Now the assistant goes to the wings to fetch a pistol, and by looking at our second drawing, Fig. 226, the reader will see the relative positions of the professor and himself; no sooner has the latter passed behind the wings than the performer, similarly attired, steps out backwards, aping the crouching attitude, and alogether conducting himself in exactly the same manner as his assistant had previously been doing. If this method of changing is effected and worked properly, it forms an imperceptible optical illusion, and on account of its simplicity is to be highly recommended.

The assistant, directly he passes behind the wings, throws off his long coat and runs to the back of the stage, proceeding along the plank on to the table. Immediately the plank is drawn behind the scenes and the canvas picture replaced, thereby leaving nothing suspicious, and no unnecessary apparatus on the stage.

When enough time has been allowed for the necessary workings to have been accomplished, the man in the cloak, who the spectators still believe to be the assistant, fires the revolver; immediately the hands are pulled inside the screen (and either concealed upon the person or deposited in the screen pocket), then the assistant himself pulls the curtains aside and stands exposed.

The spectators are, of course, fairly bewildered, but the climax is reached when the performer throws the cloak from off himself, and bows in acknowledgment to the applause which at all times is forthcoming to the man who smartly works a good illusion.

The effect of the illusion just described can be varied and possibly heightened by causing the assistant to visibly change to the performer. If this method of presenting the same be adopted, it is best worked in the following manner: After the performer leaves the table (by the back way, of course), he dresses in a cos-
tume resembling his assistant's, only instead of an ordinary sack it is a trick cloak, which on the release of an elastic pull, separates and flies behind him, concealing itself beneath his coat tails. The change is accomplished as described in the preceding effect, the assistant still enveloped in the cloak makes his way on to the table, at the report of the pistol the pulls holding the cloak round the presumed assistant are released, and there stands thè performer in exactly the same state as when he was behind the screen; the curtains are immediately drawn aside, and the assistant, still dressed in the sack, is exposed.

The New Half-Lady Illusion.-During the present year London was considerably startled by the appearance of an illusion of a very mysterious nature. It was nothing short of a half lady, who was announced to float above the spectators in order that they might assure themselves that mirrors or others reflective substances played no part whatever in the bringing about of the illusion. The puzzle was, of course, to find the lady's legs, although this would have been a very difficult matter, as will be found by perusing the following explanation. Some apology should, I think, be made for including the description of this particular illusion in this book, for the reason that it would be difficult for many readers to duplicate the effect. Had I not been in receipt of letters from magicians residing in many parts of the world enquiring as to the nature of the secret of this new fake, as they thought, I would not have included it in the series of effects I have explained. However, in order to satisfy the curiosity of some, and in the very remote possibility of there being a magician who can produce an illusion based upon the same idea, I take this opportunity of acquainting my readers with one of the most ingenious "sells" that has ever crept into the history of magic.

Upon the curtain ascending, the professor steps forward with a young lady, who is dressed in tights and
wears a mask over her features. The performer introduces this girl as the subject of the illusion, and


Fig. 227.
directs the attention of the audience to an arched opening at the back of the stage, wherein they can see a small balloon. The young lady then retires to this opening at the back of the stage, and curtains are pulled across for a few moments, and when they are removed she is seen to be resting in a sort of cup on the trapeze bar which is fixed to the balloon instead of the usual car. Presently the balloon begins to move forward, and it is pulled by ropes completely over the heads of the people in the stalls towards the gallery, the lady tossing flowers right and left all the while, and gracefully revolving in her cup, which works on a pivot. The contrivance then returns to the stage and passes into the opening, the curtains being immediately drawn to, and when they are re-opened, there stands the lady in all the glory of completeness as when she first made the acquaintance of the audience. In response to the applause she removes the mask she is wearing, bows her thanks, and leaves the stage.

This all sounds very well, and to the uninitiated it looks the same, but prepare for the secret. The girl in the balloon had no legs. It is believed that she had the misfortune to lose them both in a railway accident, and some ingenious entertainer saw a fortune in her loss.
The mise en scene of the illusion tends to create an impresson that it is a genuine piece of deception, and not a "sell." Doubtless from the description of the effect, my readers will gather the details of the working. The living trunk or half lady is, of course, concealed in the wings of the opening when the curtain ascends. The young lady introduced to the audience, and who is fortunate enough to be blessed with a pair of understandings, wears a mask in order that the difference in the two faces may not be discovered, for she is merely "got up" to resemble the living trunk.
After the introduction, this duplicate girl retires to the opening, and when the curtains are drawn she slips away into the wings, while an assistant lifts the half lady into the cup of the balloon and fixes her there. The
curtains are then pulled apart and the band strikes up with a triumphant tune, electric lights around the trapeze are switched on, and the balloon moves gracefully forward, being pulled by ropes right up to the gallery. The illustration, Fig. 227, conveys some idea of the appearance of the illusion as the contrivance passes over the heads of the audience. A shows the position of the pulley wheel on the balloon; BB , the supporting bars of the cross-piece upon which the cup D is fixed; while C indicates the presence of a few cut glass prisms, evidently used in order to deceive the public into believing that by an ingenious arrangement of glass the lady's legs are concealed in some mysterious manner. After being in the hall for some three or four minutes, during which time the lady has disposed of the contents of her basket of flowers, the balloon is allowed to slide back into its resting place in the alcove. The curtains are drawn, the lady assisted out of the balloon, and the duplicate placed in a position that she would occupy if she were really stepping from the trapeze, and the curtains opened. The girl runs forward, removes the mask, as now there is no necessity to hide her features any longer, and bows herself off. Any further explanation would be superfluous, and therefore let us leave the mysterious half lady to comfort herself in her affliction by grinning up her sleeve at the manner in which she has fooled the public.
"Oh! Where Am I?",-This illusion is a very novel conception, which will doubtless find favor with many magicians, especially those who run a side show. Its effect is bewildering, and appears as follows :

Hanging upon the wall at the back of the stage, or wherever it is desired to present the mystery, is seen an ordinary framed mirror. The performer asks for an assistant from the audience to come on the stage, and he stands wherever he likes so that he can get a clear view of the glass. The performer now approaches the mirror and pretends to shave himself, and naturally everyone in the hall can see his reflection. He then asks the gen-
tleman from the audience to walk over to the mirror and see how handsome he has become, which he then attempts to do. However, no sooner has he arrived in front of the glass than his image vanishes. The performer walks over and, directly he comes within range of the mirror, the reflection of himself and all other objects can be seen, although when the assistant is in any way near, nothing can be observed, and yet the glass is there all the while because the gentleman can feel it.
Having described the effect I will now explain the secret, which is simplicity itself. First obtain a strong frame fitted with a piece of plain plate glass. To the back of the frame on the left hand side, a piece of wellsilvered mirror must be hinged, corresponding in size to the piece of plain glass in the frame. (See Figs. 228 and 229.)


Fig. 228.


Fig. 229.
When turned the proper way, this mirror lies flush with the piece of plate, and the two appear as one ordinary sheet of silvered glass. The wall wherever this mir-
ror is hung has a trap in the back, which leads to a small compartment draped in dead black, with an assistant there to work to the performer's word signals as they are given. After having demonstrated that the mirror docs reflect all images, just as the performer signals that the gentleman investigator has approached the glass, the assistant behind swings the mirror back, leaving the glass plain. It is absolutely impossible to detect or watch the mirror going, for the simple reason that directly it is slanted, the silver catches and reflects the blackness of the interior of the compartment, and is consequently swung right back without the audience having any knowledge of the secret of the sudden effect which deprives the mirror of its power to reflect. The first illustration gives a front view of the prepared looking glass, while the second shows the appearance of both the glass and the mirror from the interior of the black compartment, the glass being stationary and the mirror swung right back. Of course anybody can feel the glass still there after the silvered portion has vanished, but they cannot peer through it on account of the blackness at the back. The subsequent working, that of pushing the mirror back again and removing it to the accompaniment of the performer's patter, will be readily understood, and does not need any further detailing.

The illusion about to be described was, I believe, invented by a German magical dealer some few years back and introduced in London during the present year by Horace Goldin, the American illusionist. The effect is as follows: When the performer has finished one of his tricks, a charming young lady enters, and the pair enjoy a glass of wine together. The wine makes the lady gay and she begins to dance. While thus engaged her husband happens to pass along the street and glances through the window (the stage is furnished with a draw-ing-room set) and sees his wife. Immediately the sound of police whistles are heard, and the lady tries to hide. Suddenly an idea strikes the performer, who tells the lady to step into a cabinet consisting only of a wooden
top and bottom supported by four slender uprights. (See Fig. 230.) She gets in, and curtains that are attached


Fig. 230.
to the top are lowered, these covering the back and two sides, while the front curtain only comes half way down, this leaving of course the lower half of the lady visible. By means of a rope suspended from a pulley, this improvised cabinet is hoisted from the floor just as the police open the door and walk in to search for the girl. Of course they discover her, or at least they see her dress in the cabinet, and pull down the other half of the curtain, thereby covering her up entirely; but just at that moment the performer fires a pistol and the curtains collapse and fall to the ground, showing that the lady has vanished, leaving the cabinet suspended in the air, quite empty.

Let us now glance at the construction of the cabinet and see if we cannot discover how the disappearance was effected.

The first, and by far the greater part of the deception is centered in the bottom of the cabinet, which is provided with a trap corresponding with another one in the floor of the stage. The top also is not entirely devoid of preparation, for that is double, the curtains being attached only to the underneath portion of the top. In addition to this, the lady's dress is faked, that is to say, she changes her costume for a duplicate dress while passing behind the scenes, apparently searching for a place in which to hide. The duplicate frock exactly resembles the dress the lady wore while dancing, although it is providedunderneath with round hoops sewed to the material, in order to cause it to keep its shape after she has left its interior. Let us now explain the working of the illusion so that no detail may be lost. The cabinet is already in position when the lady comes on the stage. After the business has been acted and it is time for her to hide, she looks around for some convenient place and runs behind a back scene. The performer, however, espies the cabinet and calls the lady from her place of concealment, but before coming forward she takes advantage of being temporarily hidden by slipping off her ordinary skirt and donning the faked one. She
then takes her stand in the cabinet, and the professor lowers the back and two side curtains to the bottom, and the front curtain only half way down. Directly this is done, the girl hooks two strings attached to the false skirt on to the side curtains so that they will support the dress, and then pushes open the trap in the cabinet bottom and sinks through the floor of the stage, closing both traps in her descent. Any suspicious rocking of the dress while this operation is going on, is effectually hidden by the performer placing a pair of steps in front of the cabinet and mounting them in order to attach the pulley rope from the flies to the four chains coming from each corner of the cabinet. When this is done, the construction, minus the lady, but still containing her dress, is hoisted some two feet from the floor, a steadying rope, A A A, in the illustration being threaded through a ring in the stage to prevent the cage or cabinet from swaying.

It is in this condition when the constable walks in to search for the girl, and seeing her dress in the cabinet thinks he has captured the lady and so lowers the other half of the curtain and whistles for another policeman to come in and assist in lowering the cage. The performer now fires, and immediately the lower half of the roof of the cabinet is released and it falls. Being attached to each of the four uprights, in its descent it squashes flat the hooped dress, and sinks right on top of it, the curtains of course falling all round the bottom of the cabinet. The uppermost side of this extra bottom is covered with a similar material to that used for the original bottom with the trap, and so the two cannot be distinguished apart. Consequently it appears that the curtains have just fallen away, and the lady has vanished without leaving a trace behind. While all this business has been going on, the lady has just slipped on her original dress and rushed to the front of the house, firing a pistol, and running through the center aisle just as the spectators are wondering wherever she is. This illusion is, as will be seen, capable of being worked up in many different ways, and I shall leave it to the ingenuity of the reader to make good use of the idea here given.


Fig. 231.

## BLACK ART UP TO DATE.

How expressive are the words "Black Art;" and how correctly do they convey to the mind an impression of something weird and mysterious. No more suitable title could possibly be given to that distinctive principle of magic, which makes an endless and unlimited variety of illusions possible to its professors.

India claims-and justly, too-that the Yogi of the East primarily introduced the principles in a crude yet effective form many years before any magician of the West added Black Art to his repertoire.

Since its introduction to the Western world, it has been presented by many of our foremost illusionists in almost every theater in existence, and yet it seems to grow in popularity as the years roll on.

There can be but few who have not witnessed the marvel accomplished by its aid, and those who can proffer a plausible explanation of its secret are even fewer.

The curtain rises, and we behold upon the stage a darkened cave, resembling those imaginative pictures tradition has forced upon us of a wizened sorcerer's dwelling, within the secret recesses of which he sedulously pursues the study of discovering a means of indefinitely prolonging human life, and of converting the baser metals into gold.

Suddenly, from out the gloomy blackness, a figure of the wizard our minds have conjured up, appears with a mysterious suddenness that fairly startles the whole audience. He steps out from the cave to prove that he is in the flesh, and then he retreats within its portals. Raising his empty hand aloft, he calls aloud to the
spirits to supply him with a magic wand; and immediately his upraised hand is seen clutching the mysterious emblem of his authority.

Nothing else is visible upon the stage, but with a wave of the wand a tub appears; this tub is rolled down to the audience, who acknowledge it to be real, solid and empty, and it is then rolled back.

Slowly a full-sized skeleton rises out of this tub and floats about in the air, and then, at the command of the wizard, one of its arms or legs separates from the body and travels in a different direction; the head leaves the trunk and travels upward, and then descends again and joins the body. After a variety of like movements these bones suddenly and entirely vanish, and are seen no more.

The magician waves his wand again, and orders two small tables to appear; his command is immediately obeyed, and they are seen standing one upon either side of him. Now, at his request, the spirits provide him with two vases, one of which appears on each table. These vases are handed round for examination and then replaced; and then the wizard requests the loan of three or four watches and chains. Taking them in a bunch, he drops them into one of the vases, and at the same instant turns it upside down, showing that they have vanished. Quickly walking over to the other table, they are all extracted from the vase that has been standing there untouched.

At a word from the performer, the two vases or urns upon the table travel across the stage in opposite directions and exchange positions with each other. Then one vase rises upwards and remains suspended in the air, while the performer passes a solid and examined hoop around it to prove that it is not suspended by any tangible support.

Live animals-from a cat to a tiger in a cage-can be easily produced or caused to vanish; and when the performance is concluded, the magician covers himself with a white sheet and disappears.

Sucn, in orief, is an idea of the wonderful illusions that can be accomplished by this method, and the reader will readily see how exciting and weird the performance must be when properly presented.

I shall now describe the principle of Black Art, in the hope that it may assist the ideas of some and prove of interest to others.

While the mystericus cave of the wizard is entirely draped in dead black, everything that appears so suddenly is of a pure white color.

The magician himself is dressed as shown in Fig. 231in the Eastern style of a flowing white robe. Everything possible should be done to encourage the idea that the illusions are the outcome of the ingenuity of some ancient Egyptians-only, of course, very, very much improved and varied by the presenter himself. It is really surprising how much more a trick will be appreciated if the spectators are told that it is of Oriental invention; and it seems stranger still that, no matter how much proof to the contrary is brought forward, the general public cannot be induced to believe for one moment that the Mahatmas of India are not miles and miles in front of the Western professors of magic.

All the white-painted articles that are to appear are placed behind black screens upon the stage, and consequently they are invisible to the audience.

The darkness of the cave is considerably increased by having a few lights with reflectors behind them arranged around the sides and proscenium of this inner stage.

The performer himself does absolutely nothing towards producing the desired articles, all the work being executed by an invisible assistant. This assistant is attired in a suit of black, with black gloves, and a hood for covering the head and neck; the hood has small eye holes covered with very thin veiling, so that there is no fear of the luster of the assistant's eyes being seen.

Now it will be understood that the tables, tubs, chairs, etc., to be produced are first arranged in their proper position upon the stage, and covered over with black
velvet. At the desired moment the assistant steps up to the article and seizes the covering; then, when the magician commands the appearance of the object, the cloth is rapidly whisked off and carried to the back of the cave, as will be explained hereafter. The appearance of, say, the tub, right in the center of the stage, is so sudden and noiseless as to be really uncanny; and as there cannot be any suspicious movement on the part of the performer, the secret of its appearance cannot be detected. The disappearance of any object is brought about in precisely the same manner, only reversed; thus, supposing the tub had fulfilled its mission and was not wanted any longer, at a word from the performer the assistant would simply put down a black screen in front of the tub, so as to completely envelope it, and under cover of the screen it would be pulled to the back of the cave. It will now be quite understood that the screens must always be manipulated with the greatest possible neatness and rapidity, because if the screens or covers are made to travel slowly, the illusion would be imperfect, and it would lose most of its effect upon the audience.

The assistant must take great care never to walk in front of any white object within the cave, and must never allow his gloved hand to be seen when he is lifting anything to the table, and he must never pass in Cront of the performer's person during the performance.

Now that the general idea of the principle has been thoroughly explained, I shall describe the construction of the cave, and a series of the most un-to-date tricks and illusions that can be accomplished within its mysterious portals; and so anyone possessing the inclination to produce a black art seance will be in a position to start with a complete knowledge of the subject.

Presuming that the reader desires to present "Black Art" at halls or bazaars, he could not do better than have his inner stage or cave erected to the measurements given in the accompanying diagram, Fig. 232; although, of course, should he have other objects in view, the meas-
urements will have to be varied to suit the different requirements. The width, it will be seen, should be just twelve feet, with a depth of nine feet, to allow the invisible assistant plenty of working room. The proscenium should be eight feet 'high, and the walls and ceiling must be draped with black velvet, while the floor is covered with a similar colored felt, which will completely deaden the sound of the assistant's footsteps.

A wooden frame must be made for the front of the cave, and this should be painted black, with Egyptian figures standing out in white. A special set of lights, with reflectors, must be arranged to fit on the head and side pieces of this framework, and these liyhts shining in the eyes of the spectators make it an utter impossibility for them to detect any object within the mystic chamber, unless it is of a pure white color.

A study of Fig. 231 will convey my idea of the style of frontage most suitable for the production of this particular branch of magic.

Electric lights are naturally the best and most convenient for use in illuminating the front of the cave, but where it is impossible to secure such a commodity, ordinary bicycle lamps will be found to answer the same purpose.

Portability is one of the greatest objects that must always be considered when constructing an inner stage of this description, and I have found the most convenient method of erecting the wizard's cave to be the following:

First mark out upon the floor of the permanent stage the exact position that your own chamber is to occupy; then fix four upright posts into the floor, one at each corner; these posts should be eight feet high, and each one must be provided with a steel pin in the top.

Four thin battens must be laid on the top of these posts, from corner to corner, being fixed by the steel pin passing through holes made for that purpose in each end of the battens. Thus a strong but light frame-
work is formed, and additional strength may be obtained by having two extra battens fixed diagonally from corner to corner, although this is not absolutely necessary.

The wooden frontage is constructed with mitered corners, so that it can be taken to pieces and packed along with the supports and battens. When required for use the front frame must be put together and fastened to the two first uprights; then the felt carpet should be laid, and the velvet walls and ceiling be put in their place.

It will be noticed that the diagram, Fig. 232, shows a two-foot opening in the center of the back curtain; this is left to allow the performer or his assistant to make their entry or exit unobserved, and in order to prevent the opening being seen, a five-foot screen, reaching from floor to ceiling, is stretched in front of the cavity, about cighteen inches away from the curtain. Another screen, similar in size to the one just described, is fixed on the right hand side of the chamber, eighteen inches in front of the one hiding the opening in the back; and by looking at the plan the reader will see how it is possible to introduce or cause to vanish an object almost from the very center of the stage.

This ingenious arrangement allows the assistant to fetch from behind the back curtain any articles that are too bulky to remain hidden upon the stage until required in the performance, and it also serves to get rid of any large objects, such as barrels or tables, after they have been vanished.

The screens should be sewed to the velvet ceiling and tacked to the floor to keep them perfectly firm, and care should be taken not to allow any lights whatever to be behind the cave; in fact, all the footlights should be extinguished, and only those attached to the front of the inner stage allowed to shine.

Not one spot of color must be visible within the chamber, or there would be danger of the assistant's presence being detected by the audience, should he pass
in front of it; and as many lights as possible in the hall itself should be extinguished prior to commencing a seance.

Probably the instructions for erecting a suitable structure seem rather elaborate and long-winded, but I can assure my readers that everything may be ar-

ranged and made ready for a performance within fifteen minutes, providing the work has been well rehearsed.

Naturally it comes expensive to purchase a black art outfit complete, costing from $\$ 125$ to $\$ 250$, according to the quality and quantity of the properties required: Where convenient I should certainly advise the reader to construct the stage and make the necessary apparatus himself. Thereby he will have just what he requires for the entertainment, without laying out money on effects that perhaps he will not like after having purchased the apparatus.

However, where cost is an unimportant consideration, and where time is too precious to be devoted to building the cave, readers will be able to purchase the whole thing outright from reliable dealers in magical apparatus.

Perhaps the best articles for commencing a performance with are two tables and a barrel, which should be placed in the positions indicated in the plan of the stage, and then covered with bags of velvet. Care should be taken that the covers or screens covering the white objects behind or beneath them should so hide the articles that when the curtain ascends the audience can see nothing except an apparently empty stage.

All the apparatus that will be required during the performance should be in readiness behind the cave, so that the assistant cannot fail to have everything at his fingers' ends to prevent any hitch in the show; and the assistant himself should stand well to the back of the stage when his services are not required.

The performer now appears, either magically or by simply walking in from the wings. He must, of course, be dressed in white, and it is advisable for him to say a few words describing the nature of the performance.

To cause the sudden and mysterious appearance of the performer it is necessary to remove the barrel from the center of the stage, so that it does not interfere with or obstruct the view of the audience.

The magician himself should stand behind a black screen in the very center of the chamber, and at the desired moment his assistant should rapidly drag the
screen aside and expose the performer, who makes his bow while the invisible assistant disposes of the screen.

A white wand, encased in a black cover, is procured by the assistant, and directly the performer calls for the article it must be slipped out of the bag and made to float across the stage to his hand. This, of course, is accomplished by the assistant quietly walking across the stage, holding the wand in his hand by its extreme end.
With a wave of the magician's stick the barrel appears just beside him; this had been pushed into position by the assistant, who, at the performer's command, snatches away the sheet of black velvet with which it was covered, leaving the barrel standing out in bold relief.

Being quite solid and quite ordinary it can be wheeled or rather rolled down for the audience to examine, in case they should imagine that it was merely produced by reflection.

The interior of this barrel should be painted dead black, so that any objects enveloped in a similarly colored velvet bag can be dropped into the tub and afterward produced without any fear of the secret of their appearance being discovered.

One very valuable accessory that should be constructed is a cylindrical box to fit easily into the interior of the barrel.

This cylinder should be covered entirely in black velvet, and its use will now be obvious. A good effect may be obtained by loading a peculiarly constructed skeleton into the cylinder, which is introduced into the barrel, from which the skeleton rises at the performer's command. The introduction of the cylinder into the barrel is quite invisible because of the color of the surroundings, and the assistant should simply lift it up and drop it into the tub.

The skeleton itself is made of paper mache or light wood, with the back of the figure completely covered with black velvet. The limbs are all joined, as is shown
in the illustration, with handles affixed to each separate portion, so as to enable the assistant to operate the limbs without experiencing any difficulty. (See Fig. 233.)


Fig. 233.
After the skeleton has enjoyed his dance round the stage and has been fully dismembered and rejointed, its limbs are caused to leave the body one by one and drop into the barrel from which they formerly arose.

Directly every particle of the skeleton has been again deposited into the barrel, the magician turns it upside down and shows that it is quite empty. The quickness of this disappearance is really remarkable, and will
always cause considerable astonishment. It is, of course, worked by dropping each separate limb into the same cylinder which introduced them into the barrel, and when the whole body is inside the assistant quickly lifts the cylinder out before the magician shows the barrel empty.
Should the performer so desire a white skeleton can be painted upon the assistant's black suit, and a particularly weird or lively dance can be executed by him with good effect; and by the simple process of turning round, the skeleton can be made to vanish or produced ad libitum, because the assistant's back is only plain velvet.
Out of the empty barrel a score or so of pigeons, doves and geese can be made to fly, and a live child can be olaced in the tub, and almost immediately the magician stabs about inside with a sharp sword, and afterwards shows that the little boy or girl has entirely vanished.

Both these effects are executed by the use of the same cylinder, which for the first production has to be furnished with a lid or cover. - The birds to be produced are put into this cylinder, and the cover placed over the top; then it is loaded into the barrel, and at the proper moment the lid is lifted off, and the birds allowed to escape.

The child is lifted into the tub and placed in the same cylinder that was previously occupied by the birds; the assistant, of course, lifts this lining and its contents out of the barrel before the magician attempts to pass his sword round the interior, and the child being an accomplice, is carried away to the back.

Many other strartling effects can be worked up with the barrel and the cylinder to suit the style of any particular performer, and therefore I will leave those variations to the inventive capabilities of the reader.

When the barrel has fulfilled its mission and is wanted no more, it should be made to vanish and cleared away, to allow as much working room as possible in the limited area at the magician's disposal. To cause its
evanishment, another cylinder of velvet, of sufficient size to encompass the barrel easily, should be quickly dropped over the tub, so that it is completely covered, then it will be quite invisible and can be dragged out of the way.

The two white tables, hidden beneath velvet sheets; can now be produced at the performer's command. They should be standing upon either side of the stage as indicated in the plan previously given, and at a wave of the wand the assistant must snatch the covering away, leaving the white table completely exposed. The same operation should then be repeated upon the other side.

Suddenly a large vase or urn mysteriously appears upon one of the tables; this is accomplished by the assistant bringing from the rear the desired article encased in a black cylinder. In this condition it is placed in the proper position, and then the covering quickly lifted off at the right moment. In the same manner a second vase can be made to appear on the magician's hand, and this is then shown quite empty and placed upon the other table.

The performer now steps down to the audience, and requests the loan of some four or five watches and chains. Having obtained these, he goes to either urn, and unmistakably drops each borrowed timepiece into it. Then, quickly walking to the other side of the stage, he extracts the same articles from the other vase and returns them to the audience. The secret of this startling effect is that the assistant slips a cylinder with a bottom into one of the vases while the performer is borrowing the watches. Then, directly they are all dropped inside the urn, the cylinder is removed and carried over and deposited in the vase upon the other side, thus allowing them to be removed therefrom. The principle of changing objects can be relied upon for many weird transformations, and therefore, having explained its secret, I will pass along.

One very uncanny experiment that can be introduced

In the act is to cause the performer and a living skeleton to visibly change heads right in front of the audience.

For this effect the assistant will have to wear a black suit, phosphorescently painted to resemble a skeleton.

Two peculiarly constructed boxes will also be required, their construction being explained in the diagram. (See Fig. 234.) The outside is an ordinary wooden box with no bottom. The semi-circular interior C is a metal helmet that fits over the head, and this is pivoted to the wooden top by a bar that allows the box to revolve without moving the helmet. A is a cross-bar fixed to the pivot; $B$ is a stop that catches $A$ and prevents it from revolving too far round. D and E are two eyelet holes through which a thread can be passed, as will be explained presently.


Fig. 234.
The outside of these boxes must be covered with black velvet, and on one side a fac-simile of the performer's features should be painted, while the opposite side must be decorated with the painting of a skull.

Before the curtain goes up, the performer' and his weirdly attired assistant adorn themselves with these head boxes, with that side foremost which is painted to resemble their proper head; that is, the skeleton with the skull in front and the performer's head at the back of the box, and the magician with his box vice versa. Two black cords are attached to these boxes, as explained in the next illustration (see Fig. 235), being attached to the sides and passing round the front through the eyelet holes E and D. From there they pass off to the back of the cave, into the hands of another assistant.


The curtain ascends upon the pair, and owing to the surroundings, no peculiarity in their appearance will be noticed. The performer now fires a pistol, which is a signal for the assistant at the back to quickly and simultancously pull two strings. The two boxes swing round, and the skeleton is seen to be wearing the performer's head, and the performer wearing a skull.
A very ingenious effect that can be introduced with ease in a black-art show is the levitation of the performer's assistant in mid air in such a manner that a solid hoop can be passed around the recumbent form to prove the absence of any tangible support. Having presented this illusion in private on many occasions, I can honestly recommend it as both practical and sensational, and have pleasure in detailing for the benefit of my readers the mode of procedure by which the result can be accomplished.

Commence by producing two chairs, one upon each side of the stage. This is, of course, accomplished by the concealed assistant dragging covers off them at the proper moment. A wooden board, which has been outside the cave during the seance, is shown round and proved to be quite solid and unprepared; this is laid upon the backs of the two chairs, and the young lady assistant introduced. She should naturally be attired in white, so as to be in contrast to the darkness of the cave. She should then be laid upon the board, and by sham mesmeric passes apparently placed into a state of hypnosis. One by one the two chairs are removed from beneath the board supporting the lady, which for some reason remains suspended in space.

The support is really an iron bar which comes through a back curtain situated about eighteen inches behind the plank. The bar itself is held in position by a wooden stand the exact height of chairs upon which the board is rested. This stand is constructed to run backwards and forwards on wheels between two grooves, so that it cannot get out of position. When not in use this arrangement is drawn back behind the curtain, which is
provided with a slit in order to allow the bar to be pressed through. Now the working should be plain to the reader. At the desired moment the stand is run forward and the clamp F at the end of the bar pushed into the plank upon which the lady is resting. This is worked, of course, while the performer is apparently hypnotizing his assistant, and he should stand behind the plank in order that if necessary he may with his disengaged hand guide the clamp on to the wood, should it by any chance get out of the straight. The bar is held tightly between a support at each end of the stand,


Fig. 236.
in order to get as much leverage as possible, and the iron is made double the width in this particular part, so that the plank will not overbalance at either end.

By studying the drawing, Fig. 236, this explanation will be made quite clear, and the reader will cotice a peculiar cranking or bending of the bar after it protrudes from the back curtain. This is to allow a solid hoop to be passed around the plank while apparently unsupported, and this convincing proof is presented in the following manner: Take a round wood or metal hoop some three feet in diameter, which should be painted white, and commence passing it across the sleeping form at the end marked A in the illustration. Pass the hoop along, keeping it between the back screen and the first bend of the bar in the passage marked E, until further progress is barred by the elbow of the bar. The hoop, which must necessarily be of a sufficient size to clear the end of the plank B, should now be brought round that extremity in a slanting manner as the drawing indicates. Apparently the hoop has now passed completely over the suspended body, although it is not yet clear of the support; therefore it should be brought behind the plank between the passage D , and passed from there at the necessary angle round the end A. From this position the hoop can be taken swiftly or otherwise across the whole length of the figure, being free, of course, at the opposite end to which it was passed over in the first instance. Should it be desirable to reverse this method of introducing the hoop test, it will be quite obvious that it can be passed over B and removed at the end A just as easily as from the opposite direction; therefore any further observation upon this detail seems superfluous.

Having convinced the audience that your assistant is suspended in mid air by nothing more than your will alone (?) place the chairs back beneath each end of the plank, and signal to your man at the back to withdraw the support. The young lady must now be dehypnotized and assisted off the plank, which should be shown round or thrown onto the floor to prove its genuineness.

By a simple pulley arrangement, which I do not propose describing here, after the cranked bar has been forced onto the plank, it can be raised or lowered according to fancy. This extra effect, whilst decidedly enhancing the mysteriousness of the illusion, necessitates the carrying of some very heavy properties, and is therefore hardly suitable for the use to which my readers will desire to put the idea.

As a single illusion, apart from its introduction in a black-art seance, this levitation is one that will be hard to beat; and as the properties can easily be carried in a cab, there is no reason why it should not form an excellent attraction in many entertainers' programmes.

By the variations just described it will be seen how easy it is to arrange an almost unlimited number of illusions upon the black-art principle. There is one little sketch which I occasionally produce when on tour, under the very peculiar title of "Love Triumphant." Possibly a description of it might assist the ideas of a few, and therefore I shall explain the main points of its production.

When the curtain ascends upon a darkened stage illuminated with blue footlights, the spectators see a sculptor apparently plunged into the depths of despair because the girl he loves has refused him her heart and hand. He soliloquizes that she had a perfect right to do this, because he has gambled his fortune away, and has nothing to live on except what he can earn-how terrible! However, like most melodrama villains, he sinks down on the only piece of furniture-a couchand falls asleep. Fairy music is played, and it is presumed that the sculptor is dreaming, because from the blackness a shadow is seen which gradually forms until it assumes the shape of his beloved's statue. Somnambulently, the sculptor rises from his couch and sees the figure, which is carved to represent an angel. It is one which he has just completed, and the sight of it brings to his mind unpleasant thoughts. Lifting a rug from the couch, he covers the statue with it, bute only for a
second, as he dashes it down and sinks to his knees on one side of the figure, to pray for her he loves to come to him. He prays for awhile, but the music takes a wicked turn, and suddenly, right on the other side of the statue, appears the figure of the devil. The "old gentleman" holds in his hand a terrible-looking knife, which he intends to implant in the heart of his sculptor victim. Headless of his danger, the young man prays, the music clashes, and the devil gets ready for his fiendish work; he rises, to give greater force to the blow he is about to give, but just at the fatal moment the statue comes to life. Stepping from her little stool, the angel stands before her kneeling lover, and with her upraised hand motions to the devil to withdraw. He refuses, but the angel is obdurate. She picks up the rug from the floor and throws it over the "party from below," and stamps upon him, when he promptly vanishes. By this time the sculptor has awakened from his sleep, and has just realized the danger his beloved had saved him from. The girl then explains that the warmth of his prayer brought her spirit to the statue he had carved, and had transformed the cold marble into a living image of his own sweetheart, who was now quite ready to wed the man she had always loved. During this explanation the pair walk to the front of the stage, and as they turn to go back the scene mysteriously changes to a church altar with a minister standing ready to perform the allimportant ceremony. The couple walk to the altar and kneel down, while the band strikes up the "Wedding March," and the curtain descends upon the pretty picture.

Notwithstanding the absolute impossibility of such things happening in real life, the little sketch never fails to appeal to a certain portion of the audience as "touching," and to others as mysterious. Between the two it generally comes in for a fair share of applause, and for that reason no apology need be made for including an explanation of it in this book.

The properties required consist of a figure, resembling
the girl who acts the part of the lady, a specially constructed stool, a few yards of black gauze, and either the usual black art cabinet or a stage setting to suit the ideas of the performer.

The stool or pedestal on which the figure is to stand is circular in shape, with an upright partition the same height as the figure, bolted crosswise on the top. The stool is also constructed upon the same principle as a revolving bookcase, so that it turns round easily. This is all covered in black velvet except the legs of the stool which never move. Upon one side of this partition the property figure is fixed, while the girl similarly attired stands upon the opposite space. The contrivance is then placed in the center of the stage near the back curtain, and before it is hung about five or six separate thicknesses of black gauze. This material is then thick enough to effectually mask the presence of the stool, and by an assistant behind pulling each piece of gauze above the figure to the top of the cabinet by means of threads, the statue slowly appears, and gradually gets clearer until the vision of it is entirely unobscured by any intervening material; when it can be seen plainly.

After the performer has stretched himself on the couch, this figure is made to appear as explained, and then the sculptor rises and places the rug he has been lying on round the statue. While covered by this rug the concealed assistant twists round the stool so that instead of enveloping the figure the rug is placed round the living counterpart who was before upon the back. Then changing his mind the performer determines to dispense with the cloth so that he may be able to see the representation of his beloved, and so throws the rug to the floor. The change of the living girl for the property one is not noticed on account of the subdued light.

It will be remembered that the performer now kneels upon one side of the girl, and after a few seconds an assistant attired as the devil appears upon the other. This is accomplished by that individual stepping from
behind a curtain, as will be readily comprehended after studying some of the preceding effects. After pantomimically explaining his intentions, the devil rises to stab the sculptor, just as the apparent statue is transformed to a living angel, who stands between the two, in order to protect her kneeling lover. At the proper moment the girl picks up the cloth, under cover of which the devil dodges behind the curtain, while the angel pretends to squash the old gentleman beneath her foot. She then turns to her lover, they embrace and walk to the front to explain. Directly they have passed beyond the back half of the cabinet, a black curtain is invisibly pulled down, and behind this the assistants arrange a white altar. When the conversation between the two lovers has reached that point where they decide to get married, the black curtain is pulled up very rapidly, exposing the white altar and the minister ready to tie the two together. No further explanation will be necessary, and possibly some readers may appreciate the idea I have endeavored to convey.

It will be noticed that I recommend blue footlights to be used for Black Art. If instead of having several brilliant lamps glaring in the eyes of the audience, only one or two are used, with the addition of the front lights of the color mentioned, the effect will be the same without giving the appearance of desiring to make it impossible for the spectators to see far into the cabinet. This tip may be especially valuable for large stages, where it is impossible to have every light extinguished. If blue silk could be placed over the lights, no serious consequences need be feared, such as a stray gleam exposing to the audience the fact that in your cabinet you have a black assistant.

The subject with which I have dealt could be indefinitely prolonged by explaining all the different tricks that the principle makes possible; but as the end of this book begins to loom in the distance, I must not take up much more space with describing Black Art. I'here are, however, one or two points we must just
touch on before bringing this portion of the work to a close.

By making use of the black curtains, modern theatrical stage managers have, during the last few years, produced a number of illusions upon a very large scale. Riders upon horseback, lions in a cage, and similar productions have been effected; in some cases the illusions being perfect-in others, palpable. When engineering productions upon so large a scale as just described, every effort should be put forward to ensure the lightning-like working of the necessary black screen. This can be moved away by various contrivances with the proper speed, but in some cases the performer cannot seem to hit upon the right idea for manipulating the material. Unless this can be properly worked, it is by far the best to stick to the smaller effects, using every endeavor to make them as surprising as possible.

Above all it should be remembered that when the performance is finished the professor should always "vanish'' himself. There are many ways of doing this, one of the best the following:

The performer takes up a white sheet, and holds it in front of himself and shakes it. While he is doing this the black-clothed assistant steps up and takes the conjurer's place, so holding the sheet as to allow the magician to slip away out of the cavity in the back and round to the front of the house. After allowing sufficient time for the performer to have made his way into the pit, the assistant simply drops the sheet to the floor, and being invisible, the sudden disappearance is, to say the least of it, uncanny. No sooner has the sheet been dropped than a pistol-shot. from the auditorium announces that the performer has appeared among the audience. He rushes up to the stage and bows himself off-and the show is over; therefore let us take this fitting opportunity of ringing down the curtain upon our description of how it is done.
"ANOTHER MAN CUT UP TO-NIGHT."
Such was the poster advertisement some years ago of
that "fellow of infinite jest," the late Dr. Lynn, and with such a striking advertisement it was not difficult to fill the halls nightly. The original idea was-the performer appeared with a large, dangerous-looking knife in hand, and invited anyone who wished to come on the stage from the audience and enjoy being cut up in pieces. No one coming, however, the performer ushers in a man who, he says, has kindly volunteered to have head, arm and leg severed from body. He was secured by a rope to a door at back in which were rings, through which passed the rope, and then around his body, and so forth. It is needless to say in detail here how the trick of vivisection was performed; suffice to remark the right arm and left leg were dummies, and the head was at the proper time thrust back into a trap door, which door was covered with black material. The severing of the arm and leg was done by merely unhooking them from body of subject; and when the time came to behead him, a cloth was put over head, the cut made while cloth was in this position, and in removing head it was taken away (seemingly) under cover of cloth; in reality this cloih had concealed in it apparatus to assurne shape of head.

The method which I present through this handbook, however, is a vast improvement in every respect on the original idea, and it is now given openly for the first time.

A man is tied to a board (Fig. 237) in full view of the audience. His arm is amputated, also his leg. His eyes are bandaged, and his head is then cut off without any further covering. The first thing to make is a board (Fig. 237) ; this board is covered with black material, glued onto it. The board has a man's shape cut out of it and divided where the lines are in sketch, and working on spring hinges (Fig. 237)-ten pieces altogether. Next is the suit the assistant wears; it is what is known as a strip suit. The coat is divided down back in 'center, also the sleeves are held together by a strip string. The pants are also split up back of each leg to
the waist, and the vest has no back, the sides of front being stitched in position to coat. The arm of coat and leg of pants are cut off and sewed on again (Fig. 238)


FIG. 1.
Fig. 237.
very neatly at A-the place where amputation is made. Have a pasteboard shape of a man's body from neck to waist made with no back to it. This is fastened to inside of coat and vest securely. The trousers are treated similarly, held, however, in semi-curcular position by pieces of bent hoop-the pasteboard in trousers being open at back, same as coat; and the sleeves also have the same treatment. To the wrists of sleeves are fastened a pair of kid gloves, the palms of which are cut out, leaving, however, pieces at tips of fingers like thimbles in which to thrust the hands. The inside of these gloves are varnished with a mixture of shellac and methylated
spirits, so that they keep shape after hands have been removed. To the bottom of pants are fitted two shoes with no backs to them. Your assistant wears a beard, so if the strip string is pulled from coat and trousers, body


Fig. 238.
of assistant can go through the spring doors in board, and the beard conceals where the neck should be. The head is not yet removed. The trousers are stitched at waist to vest, and on shoulders are fixed two rings-one on each shoulder-so when placing assistant at the board, performer quietly pops the two rings on two corresponding black pegs in board; so that when assistant gets out of his suit, the suit still remains in position. When the strip strings are pulled, he slips right out of the suit. The strip string is made as in Fig. 239. You
get a number of pins and stick them in a table about


FIG. 3.
Fig. 239.
three inches apart; then get some thread and knot it to each pin-head, as in sketch. If those pins are inserted to sew up coat, and you pull one end of thread just the length of a pin, it all comes undone.

Now the improvement I am going to show here, towards the old-style vivisection, is that when the arm and the leg are amputated and laid on the chair, they move as if alive; and when the head is severed from the body and laid on the stool, it is still animated, and is in reality the actual head seen just before on the body at the board. When the performer goes solemnly to amputate the arm with his big knife, he takes a red handkerchief in the left hand, and with his knife in the right cuts off the arm at A (Fig. 238), instantly covering the cut portion with a red handkerchief. Then he proceeds to cut off the leg at A (Fig. 238), and places the red handkerchief over the portion just cut, as if to conceal all traces of bleeding. The severed arm and leg are laid on chairs, but on the seats of the chairs are two threads running from one side of the stage to the other. (See Fig. 240.)


Fig. 240.

If you notice, between these two chairs the threads sag and touch the stage, and also they sag at the other sides of the chairs and touch the stage there also, so that the performer can walk between the chairs and at the other sides of them without coming in contact with the threads or disarranging them in any way. If the limbs are laid on the chairs and on top of the threads, and the threads pulled taut, by careful manipulation of the thread, the limbs can be raised from the chairs several times and laid back on them again.

Now regarding the head. Have a wire framework on


Fig. 241.
which is fixed the beard and a small tuft of hair at forehead. When the assistant gets his body from out of the suit, he still keeps his head in position as at first seen by the audience; then when the limbs are amputated, take a handkerchief and blindfold the head-having a small silk shawl in readiness on the arm. As you blindfold the head, the assistant withdraws his head through a trap in the board, and you merely knot the handkerchief around the framework. The spectators now only see the beard and tuft of hair on top of the framework, and think that the assistant is still there. Do not give them time to meditate, but instantly cover the framework of the head with the small silk shawl on your arm, and taking your knife, sever the head from the body and lay same on the stool on which the assistant is supposed to be standing yet (Fig. 241). Finally, remove the silk shawl and the handkerchief used to blindfold, and the head is seen alive. This portion of the illusion is effected thus: The little stool, B (Fig. 241), has three legs, with two little mirrors (shown by dotted lines) running from front leg to the two legs behind, a la sphinx table, at angle of incidence; and in top of stool is a little trap, and a corresponding larger trap in the stage beneath it. When the assistant escapes from the board completely, he rapidly runs beneath the stage and at the proper time, just as performer is laying the framework of head (under cover of silk shawl) on the stool, he pops up his head and the framework fits exactly over it. Should there be no way of having a trap in the stage, then the board at the back reaches only to the top of the stool and rests on it, and the assistant, when the time arrives, goes on his face and stomach, crawls through the trap, CC (Fig. 237), and pops his head up through the hole in the stool. Instead of a hole, let there be a semi-circular piece cut out of the back of the stool, as in Fig. 242, and a piece to fit it exactly when not in use. Should you object to using the stool with mirrors, then use a small square stool. This stool has a little black roller-blind fixed beneath the top-right in the center of it, as shown
in Fig. 243 by dotted line-and is pulled down in position by the assistant, the audience taking the little black blind as the covering of the door at the back.


FIG. 6
Fig. 242.


FIG 7
Fig. 243.
A further improvement in this act may be made as follows:-Instead of having a plain black-covered board to which to secure the assistant, get a folding screen (see Fig. 244), the back of which is solid and the shaded portion cut out and cut in sections, as shown by lines in sketch. The designs or scrolls should be made to fit in order to conceal where the cuttings are made. This idea of the screen enhances the effect very considerably.
This illusion is very useful when introduced in a sketch with characters of a quack doctor; a gouty invalid (who has heard of the doctor's skill, and comes to be operated on) ; and a third actor in the sketch might be a nigger "Buttons," to work up hilarity.


## THE ART OF JUGGLING.

As a pretty and fascinating entertainment, juggling will doubtless always remain one of the most appreciated; therefore, I propose to describe in this chapter, a series of experiments that may be learned with comparative ease by almost anyone. A proper selection made from the number of feats of dexterity combined with innocent trickery that are explained in this chapter, should prove ample in quality and quantity for any ordinary juggling performance.

## THE BALANCED COINS.

The effect of this feat is certainly puzzling, although no particular dexterity is required for its successful execution. Three half dollars are borrowed from any members of the audience and laid upon the palm of the hand, which is immediately raised to the position illustrated in Fig. 245.


Fig. 245
To accomplish this apparently delicate feat of balancing, a small accesory in the shape of a thin strip of wood
is made use of. The strip should be about three and fiveeights inches long, or in other words, just a fraction longer than the combined diameter of the three coins, and about three-sixteenths of an inch wide.

Before commencing the trick, the strip of wood must be concealed in the right hand, between the thumb and first joint of the middle finger, while the coins are borrowed and received in the left.

The performer must now transfer the coins from the left hand to the right, and must place them over the strip of wood so that they effectually hide it from view. The three borrowed coins can now be exhibited lying upon the palm of the hand without any danger of the secret being discovered. Now grasp each end of the wooden bar between the thumb and middle finger, at the same time gripping the top and bottom coin moderately tightly; and it will be found that the hand can be raised perpendicularly until the actual borrowed coins appear as in the illustration, the wooden strip at the back being indicated by dotted lines.

To conclude the experiment, lay the coins back on the right palm, and then carelessly throw them from there to the left hand which returns them to the lenders. The strip of wood is of course retained, palmed in the right hand, which makes away with the accessory as the left hand is handing the coins back.

## THE CENTRE OF GRAVITY.

A few words in reference to that peculiar force which interferes more with jugglers than any other entertainers, may not be out of place in this chapter.

Jugglers are all aware that an extraordinary amount of care and judgment must always be exercised in finding the exact centre of gravity in all the apparatus used for balancing feats.

One of the most curious exhibitions of this force can be obtained by placing two billiard cues upon the table and then laying a ball upon the tip ends of them. The butt ends should be spread apart slightly, and then, with-
out touching, the ball will roll up the cues.
This peculiar trick is explained in Fig. 246, which shows the position of the ball on the tips of the cues, and also the cross sectional drawing, which shows that the center of gravity, $C$, is higher at $A$ than at $B$, which


Fig. 246.
represents the butt end of the cues; consequently the ball will apparently roll up the cues, although it rolls down.
As another example, a pretty little interlude can be worked with a cigar that you have just accepted from a friend.
You pull out your knife to nip of the end, but before doing so, ask him if he has ever seen a cigar balanced upon onyone's finger. He is sure to say No; so then fix the point of the blade into the cigar, at an angle which allows the handle to act as a balance, and then place the


Fig. 247.
cigar tip on your finger, as illustrated in Fig. 247. No dexterity is required to balance the cigar in this position, because the knife acts as a balancing weight, and so prevents the cigar from falling off.

## STICK BREAKING.

Scientific experiments often suggest ideas that by a little ingenuity can be worked up into first-class juggling tricks. For instance, that force known as the centre of percusion undoubtedly suggested the silk-cutting feat, wherein a handkerchief floating in the air is divided in half by a sharp-bladed sword. The following effect, which is certainly more startling, is based upon the same prin-ciple:-

A broomstick of medium thickness is rested upon the edges of two tumblers filled to the brim with water. The tumblers are stood upon two chairs, and then the performer, with any ordinary sword, strikes the broomstick exactly in the center. (See Fig. 248.) The stick is im-


Fig. 248.
mediately cut in half, without either cracking the glasses or spilling a single drop of water. Owing to its simplic. ity and its startling nature, this experiment is particularly recommenäed.
)ther sımilar tricks or feats of dexterity, based upon
the same principle, can be worked in place of the illustrated experiment, if desired. Two asistants smoking cigars are asked to kneel down opposite each other, while the performer pins the two ends of a strip of paper, 30 inches long by an inch wide, together ; this strip is hung on to one of the cigars, and a similar piece of paper is placed on the other, and a wooden stick suspended between the two strips, with the ends just resting in the paper loops, the same as upon the edges of the two glasses.
Now by hitting the suspended stick fairly in the centre with another broomhandle or similar weapon, the stick will break in half without tearing the paper strips or without causing any inconvenience to the assistants.
It is advisable to let the asistants use wooden cigarholders about 4 inches long when performing this experiment, and the loops should be placed about 3 inches from their mouths.

Yet another method-that can hardly be believed unless the experiment is tried-is to construct two paper strips, same as for the previous method, which are laid upon the edges of two sharp razors, and a stick suspended as in the preceding effects. An assistant holds one razor in each hand, while the performer smashes the stick without injuring the paper loops in the least.

## REMARKABLE SWORDSMANSHIP.

To carry out this sensational experiment successfully, two good and sound poptatoes must be prepared by inserting a needle right through each one. These are placed among several others which are piled on a plate, and an ordinary sharp-bladed sword is proved to be in good condition by slicing some of the potatoes in half and by cutting pieces of paper.

An assistant is now introduced, and one of the prepared potatoes is laid on his hand; but as it apparently does not lie to suit the performer he slices off one side of it, being careful to cut away the side under the needle as closely as possible; the potato is then laid upon the
assistant's hand again (see Fig. 249). After a few flourishes with the sword, the performer cuts through the potato, dividing it fairly in half. In striking the potato with the sword, always make sure that the blade will come exactly crosswise on the needle; consequently when the sword reaches the needle it can penetrate no farther, and the brittle nature of the potato will canse it to fall apart.


Fig. 249.
The second potato is then cut in the same manner, only this time it is laid upon the assistant's neck.

An apparently convincing test of the genuineness of the feat is obtained by laying a piece of notepaper between the flesh of the assistant's neck and the potato. When the cut has been made, the paper can be exhibited showing that there is an impression of a cut upon it, which you are careful to assure the audience was made by the blade of the sword. In reality it was simply caused by the needle, which is pressed downward on to the paper on being struck by the sword.

Another variation is to place a silk handkerchief over the potato, and cut it right in half without damaging the handkerchief at all.

## THE BALANCING BILLIARD BALL AND CUE.

As will be seen from the illustration, Fig. 250, this is one of the prettiest, and apparently one of the most difficult feats of balancing extant, but allow me to explain how this marvelous trick may be accomplished.

First, have a wooden cue slightly hollowed out at each end to correspond with the shape of the balls usedround wooden balls are to be preferred; one of them must be loaded upon the same principle as "the bottle that will not lie down," and with which all my readers are doubtless acquainted. After being loaded, the ball should be enamelled white so as to exactly resemble the


Fig. 250.
other two, which are unprepared. By experiment it will be found possible to balance the loaded ball on top of either of the others, because the centre of gravity being so low causes it to cling, as it were, to the point upon which it rests.
'To present the trick, hold on ordinary wine glass between the teetil and place one of the unprepared balls inside the mouth of the glass, then take the cue tip downwards and balance the other ball on the butt end. This is simplicity itself, owing to the hollow cup arrangement which just fits the ball. Lastly, take the loaded ball and balance that on top of the one already on the cue, and steadily raise it up, and place the tip end on to the ball resting in the wine glass, where, if balanced steadily, the whole lot will remain as long as desired.
This trick will be rather difficult to thoroughly master, but the result will more than repay for any time expended in its study.

While the method of working the above feat is certainly the most genuine, there are other ways which are easier and consequently may be preferred by some of our readers.

The effect may be produced with tennis balls if the one that is going to rest on the top is faked in the proper manner. To do this, the ball must be slit open, and a small piece of lead should be fixed on some portion of the interior. The slit must either be sewed up, or repaired with a rubber solution, and then the ball must be placed in front of a fire for half an hour, when it will be found to become fully inflated and as useful as ever. Now the trick can be worked as described with the solid balls, only by using tennis balls the result is easier to accomplish, because of the nap on them.

One other method which is very simple, is to have the balls made of wood or ivory, and the top one countersunk to allow it to rest securely on the ball underneath it.

Of course, in any case all three balls should be juggled with prior to performing the trick, and a few unsuccessful attempts should be made to balance them before it is accomplished; because with an effect so marvelous as the one explained, a little judicious acting always adds to the appearance, and tends to swell the applause when at last the performer is successful.

## EGG-SPINNING EXTRAORDINARY.

Juggling with eggs is always popular, especially that of spinning them upon either end on a japanned crumb tray, turned upside down, as shown in Fig. 251. This can only be accomplished if the egg is boiled hard before


Fig. 251.
the experiment is attempted; in this condition it is spun round on the tray, and if the tray is kept gently moving in a small circle, in the opposite direction to that in which the egg is revolving, the latter will continue to spin as long as desired.

## BLINDFOLD JUGGLERY.

After making a number of difficult and dexterous experiments, many jugglers create a great impression by thoroughly blindfolding themselves, and then manipulating knives, balls, and any of the usual implements in the ordinary manner.

To the uninitiated the performance is really marvelous, but to the juggler it is no more difficult than his other tricks, because the blindfold (being faked) does not in any way obstruct his vision.

The ingenious manner in which this exhibition of being blindfolded is made simply a farce, looks straightforward enough to convince most people that it is quite impossible for the juggler to see. An assistant binds a
large handkerchief tightly over the performer's eyes, and then, as an additional security, a hood of sacking material is placed over his head and shoulders, (see Fig. 252). This hood should be enough to exclude all light from the eyes, apart from the handkerchief, but yet the juggler can execute all his usual feats, although apparently so heavily handicapped.


Fig. 252.
The explanation is very simple: the bag or hood is made out of an ordinary sack, with two holes cut for the arms, and some few threads are pulled out of the part that will come in front ois the juggler's eyes when the bag is over his head, thus allowing him to see between the remaining threads as though looking through a coarse screen. When the bag is being placed over his head, the assistant who is performing the operation of fixing it manages to push the handkerchief up from the eyes to the juggler's forehead, thus allowing him to see through the open mesh of the hood. In removing the bag after the feat has been performed, no difficulty will be found in pulling the handkerchief down again over the eyes.

In Fig. 253 the blindfolded juggler is seen to be manipulating three lighted torches, and perhaps it would be interesting to explain their construction. They are 18 inches long, and made of the most non-inflammable wood obtainable. The heavier end should be
wrapped round with cloth, which must be tightly fixed to the wood by being bound with wire. The lighter ends should be painted white, so as to be easily distinguished, and the other cloth-covered ends must be dipped in gaso-


Fig. 253.
line, which, when lighted, gives off a bright flame.
To gain an additional effiect, the stage should be darkened while the throwing of the lighted torches is being porformed.

## THE SPINNING HAT.

This is a very pretty feat of genuine dexterity, that can be accomplished by almost anyone who will give it a little practice, when once they become acquainted with the correct idea.

Obtain a round hat made of soft felt, such as is worn by the majority of coon singers, and a very flexible cane about a quarter of an inch thick. Hold the cane by its extreme end, with its other inside the crown of the hat; spin same in the air with an upward jerk, and as it de. scends catch its rim upon the cane as shown in Fig. 254.


Fig. 254.
The cane must now describe circles, which the dotted lines in the illustration explain. By experiment and a fair amount of practice, this will be found comparatively easy and extremely pretty.

When once the hat can be spun successfully, many variations can be introduced, such as placing the stick under your leg, round your back, etc., with the hat still revolving. These and other effects arc accomplished by throwing the hat (still spinning) into the air, and then placing the cane into the desired position in time to catch the felt headgear in its descent.

## BALL SPINNING.

There is no trickery in this. The only thing you have to do is to obtain a moderately heavy and perfectly round ball about the size of a football, and start it spinning on the tip of the first finger, as illustrated in Fig. 255 , then describe a circle of about 3 inches, and it will


Fig. 255.
spin for any length of time. The same trick can be performed by using a stick instead of finger, the execution being exactly the same as above.

## AN EGG-AND-STICK BALANCE.

Obtain a round walking-stick about three feet long by an inch thick, and have it grooved all along with a quarter-inch groove that should be about one-eighth of an inch deep.

The stick should then be enamelled black all over, and it will look quite an ordinary cane. (See Fig. 256.)

When presenting the feat, always take care to wipe the stick with a cloth, just to negative the idea of any sticky substance, and then lay a ball, an orange, or an
egg in the groove, and you will be able to cause it to run either backwards or forwards.

It is advisable to use eggs for this trick, as their uneven evolutions cause much merriment; and it is also as


Fig. 256.
well to make one or two failures before being successful, as the audience will then think the feat is genuine.

## THE SWORD AND COIN.

The only apparatus required for this effect is an ordinary straight-bladed sword and a round metal dise, a little larger than a halfpenny. The dise should be an eighth of an inch thick, and the edge must be grooved to fit the edge of the sword. (See Fig. 257.)


Fig. 257.
Before presenting the trick, smear one side of the disc with beeswax or soap, and lay it upon your table alongside the sword, so that when picking up the latter you can secure the disc unseen and conceal it in the left hand.

Advance to the audience and offer the sword for examination; borrow a coin(half a dollar for preference) and lay it in the left hand on top of the disc, to which the wax will cause it to adhere.

Now exhibit the coin (the disc of course being unseen, as it is on the back of the halfcrown) and place it on the blade of the sword in such a manner that the grooved disc is fitted into the edge of the blade. When this has
been done, it will be found to be an easy matter to make the coin run up and down the blade as though it were balanced right on the edge; the motion being imparted by tilting the sword in the desired direction. To conclude the experiment, run the coin swiftly from handle to point, making an upward jerk as it leaves the end which will spin the coin in the air. Then catch it as it descends, slide off the disc, and hand the coin back to the lender.

## THE WHIRLING HOOP AND GLASS OF WATER.

The juggler, in our next illustration, (see Fig. 258), is seen whirling a glass full of water, standing upon the rim of a hoop, over his head and round his body.


Fig. 258.
The hoop is provided with a small cup arrangement that holds the glass firmly. The glass, which is unprepared, is filled with water and then placed securely upon the hoop as described.

Owing to that power which drives a revolving body from a centre, known as centrifugal force, the hoop can now be swung round without fear of spilling the water, which, although at times is hanging in a perpendicular
line with the earth, the centrifugal force binds it firmly to the interior of the circle round which it revolves.

## THE SPINNING HANDKERCHIEF.

The methods of causing this pretty effect is to affix to the end of your stick (which should be about two feet six inches long) a stout needle point; this must be very securely fixed with the point projecting about a quarter of an inch; borrow a gentleman's large linen handkerchief, and while holding it in the left hand let the top of your stick rest on it and push the point through the material at about three inches from one corner. Now keep on describing a wide circle with stick pointing upwards, and the handkerchief will spread itself out flat as shown in Fig. 259. It can be thrown upward off the


Fig. 559.
stick and then caught again, still spinning, if desired. It is best to conclude by throwing the handkerchief into the air and catching it in the left hand; you can then lay down the stick and hand the owner of the handkerchief his property.
When describing circles, do so without moving the arm, using only the wrist as far as possible; this causes the handkerchief to lie quite flat in the air.

The above trick has lately been improved by having a stick which you can hand round for examination before and after the experiment. This is done by having a cap of metal with a point soldered on to the end, made to fit over the top of the stick; both are enamelled black, and therefore it is imposible to detect any addition when it is put on the end after the spectators have thoroughly satisfied themselves that the stick is quite innocent of any fake. It is best to conceal the cap in the left hand, and when receiving back the stick, stand with it resting in the hand containing the cap, and while asking for a handkerchief, plenty of opportunities will be forthcoming to enable you to securely prepare the stick for the trick, which is proceeded with as before described. It will be apparent that should it be necessary to hand the stick round after the trick, all you have to do is to remove the cap in the same manner as you fixed it.

## THE TRAVELING BILLIARD BALLS.

This experiment can be accomplished with a fair amount of practice. One cue is laid upon the table and a ball stood upon it; upon this first ball the second one is placed, and then the other cue is rested on top of both balls. (See Fig. 260.) In this condition, by picking up both cues, the balls will remain stationary. By


Fig. 260.
gently altering the position of the cues, both balls can be made to run backwards and forwards without overbalancing. This is because one ball revolves forward and the other revolves in the opposite direction, as is explained by the little arrow upon either side of the balls.

This genuine experiment has been cleverly burlesqued by causing both balls to be attached to the topmost cue.

The underneath one is then removed, and the trick, as it were, shown up; this generally occasions a hearty laugh.

Another method of working this feat is to have the two billiard cues grooved in the same way as described for the egg balancing experiment, and then of course the trick is very easy, because the balls cannot very well fall out of the two grooves.

## NOVEL HAT MANIPULATION.

New and amusing effects undoubtedly brighten the whole entertainment, and for that reason they are always being sought after by the enterprising juggler. It seems rather strange that hat manipulators have not adorned their craft with many novel ideas or amusing feats, and for that reason I am taking this opportunity of describing a few hat fakes that I have arranged, and found to be thoroughly practicable.

Probably most of my readers are possessed of an ordinary clown's hat made of felt, which they use in their show. Now this can be easily converted into a headgear that will allow of an increased number of variations being executed.

First, procure a metal ring about four inches in diameter, and insert this into the interior of the hat, pushing it toward the point until the slope of the sides prevents the rings from going any further. (See Fig. 261.) Then the ring should be firmly fixed in this position, by sewing it to the felt with a needle and cotton. Now by pushing the top point downwards through the ring, it will form a kind of cup, in which balls and similar objects can be easily caught.

This idea would no doubt form a welcome addition to the billiard-ball pockets belted round a performer's waist; but probably my readers will be able to use the hat in a variety of different manners. Of course, the crown or point can quite easily be pushed back into its ordinary position when the cup is not in use.

The next hat is constructed upon an entirely different principle, and has a very amusing effect. For instance,
supposing that the hat is upon your head, and you are manipulating some tennis balls. Suddenly you throw one ball high in the air, and when it descends, it is seen to pass completely through the crown of the hat, emerg-


Fig. 261.
ing through a little door in the front, and dropping into your hands; thus enabling you to continue the manipulation.

The construction of this hat is extremely simple, and an ordinary chapeau can easily have the required preparation made to it inside of half an hour. The crown is literally cut right out, and an opening two or three inches larger than the size of the ball is removed from the front of the hat. (See Fig. 262.) This trap or door is then refixed by a limp outside joint, made out of the silk taken off the crown, and another joint of elastic is glaed on to the inside, so that directly the door has been opened, it will close by itself, the elastic of course drawing the trap back to its proper place. Inside the hat, a piece of dark-colored cloth should be fixed in a slanting direction from back to front, commencing two inches below the top edge of the trap, as explained in the illustration.

Now everything should be apparent; the ball is thrown into the air, and in its descent is caught inside the hat;


Fig. 262.
and as it falls upon the cloth, the ball will not rebound, but will roll on to the trap, which it will easily open, and drop out, the trap reclosing of its own accord.

## A COMPLICATED BALANCE.

The effect of this experiment is to balance a playing card upon a walking stick, another stick on the card, and a basin upon the top of the stick, and then to cause the whole lot to revolve. As everything used in the trick is faked, perhaps, it will be as well to give each piece of apparatus a thorough explanation.
The playing card is one of the most important accessories, and this is made of tin, so as to be quite firm, with a steel pin running diagonally from one corner to another, and projecting a quarter of an inch at each end. An ordinary playing card is split in two, and the front pasted on one side and the back on the other side of the piece of tin, to which the projecting steel pin has already been attached. This then resembles an ordinary playing card, and the two projecting steel points are quite invisible a few paces away. One other detail that must not be forgotten, is to fix a little tiny circular metallic
disc on to one of the corners of the prepared card, at the point where the steel pin joins the tin plate; the reason for this will be perfectly obvious in a few moments.

The stick that the performer holds in his hand is prepared by having a pin-hole made about six inches from the end, just large enough to admit the pin of the card; while the second stick, upon which the basin spins, is rounded at one end and provided with a pin-hole in the other, which is also grooved sufficiently to allow it to grip the corner of the card. The illustration, Fig. 263, should make everything clear.


Fig. 263.
The basin can be made of tin or wood, enameled to resemble china, the bottom being shaped like a tent, so that there need be no fear of it working off the top of the stick.

Present the trick in the following manner: First take hold of the stick upon which the basin is to spin, and throw the basin into the air, catching it upon the rounded end of the stick, which must then commence describing circles until the basin has centered itself and is spinning steadily; hold this in the left hand, and take the other stick in the same hand also, maintaining it in a
horizontal position. Then take the prepared playing card, and after a little pretended difficulty, apparently balance it upon the stick. This is accomplished by fitting the projecting pin in the hole made in the stick for that purpose, taking care that you put that end downwards which is provided with the dise; the object of the dise being to allow the card to revolve smoothly without tearing the wood. Now lift the stick and basin, and fix it on to the top of the card-being very careful to fix it so that the groove grips the card tightly, and that the pin fits into the hole made for it in the center of the groove.

The whole lot will now balance steadily if a little skill is expended; but to make the trick even more effective, just twist the card round once in the same direction in which the basin is moving, and when it once gets started it will revolve with rapidity for some considerable time, making an exceedingly pretty feat, that is apparently the outcome of marvelous dexterity.

## THE CARD, CANDLESTICK AND CIGAR

## BALANCE.

Although this effect somewhat resembles the preceding experiment, it may be preferred by some on account of its more clever appearance. The feat is to balance a card on a cigar, a stick on the card, and a candle upon the stick; and, as a finale, to cause the whole to revolve whilst enjoying a smoke.
The card and stick are exactly the same as those used for the preceding effect; the cigar is made of metal tubing, and made to resemble a cigar by being tightly bound round with pieces of paper and properly painted. This imitation cigar is provided with a socket for receiving the pin of the card, about three-quarters of an inch from the end. The candlestick has a bottom shaped in the same manner as a juggling basin, and the candle protruding from the nozzle is really a spirit lamp made of tin, enameled white to resemble a genuine piece of candle, the wick being a thread of wool.

To present the trick, the cigar should be loaded with
a little tobacco in the end, lighted, and placed between the teeth, with the socket side uppermost. The candle wick should also be ignited at the same time, and the candlestick spun upon the wooden stick. The prepared card should then be picked up off the table, and the pin placed into the socket in cigar, and then the stick fixed on to the card. The properties will then appear as shown in Fig. 264, and by giving the card a turn, the whole lot will revolve.


Fig. 264.
This is an exceedingly pretty feat, and should find a place in many programmes.

## HAND SHADOWGRAPHY.

The amusement of forming shadows or silhouettes is a very ancient one. It was, we are led to believe by historians, very much in vogue amongst the Chinese many centuries ago. It was, however, left for Frizzo, a Spanish Conjurer and Fantaisiste, to first produce it as a stage feat, and it is to him that the modern shadowist is primarily indebted for the "stock" figures

- such as a dog, rabbit, horse, old man, etc.-now always seen at exhibitions of Shadowgraphy.

To Felicien Trewey, however, the credit is unquestionably due for raising the hitherto almost childish pastime into an art. Anyone who may have had the pleasure of witnessing Trewey's performance will, I am sure, agree with me that Shadowgraphy in his hands becomes a grand art. He invented, amongst many clever figures, "'The Swan," "Dancer," "Elephant," "Fisherman,'" etc., and innumerable shadow pantomimes. It was not, however, so much in his novel figures his success was made as in his marvelous ability to make each and every little detail appear to be absolutely life-like.

Trewey was first imbued with the idea of becoming a shadowist after witnessing the performance of Frizzo, before referred to, in Belgium. He was not long in ascertaining that what he had witnessed was capable of imn rovement, and, after many months of tedious and patient exercise of his fingers to render them supple, he succeeded in producing new figures, which are each, in their way, little masterpieces.

Trewey has, up to the present time, invented over 300 entirely new hand shadows, and although he has now retired on a large fortune his activity will not permit him to altogether discard and forget his inventive ability.

The first thing for one who desires to give shadowgraphy performances is to obtain a good light. This has deterred many from taking up this fascinating study. I have quite recently devised a lamp which gives a strong enough light for the largest theaters. A carbide bicycle lamp, but with the lens, reflector and covering for burner removed. In their stead is attached to the lamp a small metal box with an opening an inch square in the front, the inside being painted dead black. Fig. 265 shows the light attached to a metal stand so that it can be raised or lowered as required.

With the adjustment I have explained the light increases tenfold and gives a sharp clear shadow. If placed four feet from the screen it produces about four feet
square of light. Fig. 266 shows the screen that I use. The frame is of nickel-plated metal tubing, made to come apart for convenience in traveling. The canvas, about


Fig. 265.


Fig. 266.


EFERCISES FOR TAE FINOERS.
Fig. 3.
Fig. 267.

4 ft . square, should be drawn very tight and this can easily be accomplished by having a cord running through eyelets and attached to rings around the frame. Now we will commence the preliminary lesson. Fig. 267 depicts a series of finger exercises which should be diligently practiced with both hands. This renders the formation of the different silhouettes I am about to describe a far simpler matter.


Fig. 268.

## DOG AND RABBIT.

The first silhouette to be described is that depicted in Fig. 268. The rabbit is first of all shown, then the dog uppears, looks round to see no one is about and promptly bites off an ear from the rabbit, then the other ear, the motion of eating being created by moving the little finger of right hand. The dog then apparently swallows the rabbit, and under cover of this movement the left hand moves alongside the wrist of the right, thereby making the throat of the dog appear to contain the rabbit. By moving the left hand up and down a lifelike motion of swallowing is imparted to the dog. An additional effect can be obtained by extending the little finger of right hand and pushing forward the second finger of the left hand between the third and fourth fingers of the right. This gives the dog the appearance of having a tongue.

## A "NEW" RABBIT.

As I have just described the "Dog and Rabbit" silhouette, it may not be out of place to explain here my own method of "forming" a rabbit. Fig. 269 shows the


Fig. 269.
figure as I make it. It will be observed that not only the ears, fore legs, and eye are visible, but also the tail and hind legs. I also obtain the motion of the animal "nibbling' by pushing forward the first finger of right hand (the top of which is now forming the eye) to the first joint of the first finger of left hand. By now slightly moving the former the "nibbling" movement is produced, the rest of the same finger also at the same time causing the eye to move.

## FRENCH CHEF AND FRYING PAN.

In Fig. 270 I take pleasure in acquainting my readers with a novel figure originated by myself. A piece of cardboard, cut to the proper shape and size, held in the hand with the fingers in the position depicted in the illustration forms the chef, the left hand of the performer, which should be much nearer the screen than the right, holds the frying pan. Attached to the pan by means of two loose threads is a piece of thick cloth. The chef now appears and tosses the pancake. He then puts his mouth into the pan to taste same, it burns him; he then tosses it again, and rubs his nose round the pan. Innumerable other effects, all of an intensely comic character, can be obtained with this figure, but they are, of course, impossible to describe in writing, the object being to give the performer the idea so that he can work it up to suit himself.

## THE MAN AND THE BOTTLE.

A man drinking is a very old subject, but as regards creating a shadow picture of same I am not quite sure as to the age. Anyhow, it being a silhouette which admits of many little touches of character, I feel it my duty to include same in this work.

Fig. 271 explains the correct position of the hands with the little pieces of cardboard attached.

A few of the effects to be obtained are as follows:
The man enters (without the bottle) in a jovial mood, throws a kiss at an imaginary barmaid and makes the motion of ordering a drink. He then takes the bottle


Fig. 270.


Fig. 271.
up and smells it, then smacks his lips in token of satisfaction. He puts the bottle to his lips and drinks from same, this latter movement being created in a most life-like manner, but quite easy after a little practice, by means of a certain movement of the little finger, which will be apparent upon its being given a trial. He then gets intoxicated and the bottle is turned upside down. He tries to drink from the bottom, his hat falls over his eyes, etc. Innumerable other little artistic ideas will strike the performer with regard to this particular figure.


Fig. 272.

In my own performance of this shadow figure I obtain a great amount of laughter by having inserted in the bottle a long piece of cardboard shaped like a nose. Now when the figure smells I insert my first finger into this dummy nose, so that when the figure takes its nose away from the bottle it appears that it has become enormously long. (See Fig. 272.) It is, of course, simple, but always creates fun, especially if any juveniles are present.

## PRESIDENT McKINLEY.

M. Trewey always made a specialty in his per-


Fig. 273.
formances of producing finger silhouettes of celebrated people, and as this particular branch of the Art of Shadowgraphy, while requiring great practice and extremely flexible fingers, is undoubtedly very interesting, I take pleasure in presenting a new one in the shape of Mr. McKinley. Fig. 273 shows the correct position of the hands.

MR. GLADSTONE.
Here in Fig. 274 we have an excellent shadow-picture of a great statesman. By the aid of a piece of cardboard even his well-known collar is included in the silhouette.


Fig. 274.

## NAPOLEON.

In Fig. 275 we have a very interesting figure, inasmuch as the celebrated hat affected by Napoleon is formed, as well as his face, by the fingers only, no cardboard being used. This is a difficult figure to form quickly and correctly, but it amply repays the practice.


Fig. 275.

THE GIRAFFE.
This figure requires no further explanation than given in Fig. 276.


Fig. 276.

## THE PREACHER.

While the preacher is in the act of leaning over the pulpit I cause, by bending down the fingers of the hand, the top of the pulpit, or canopy, to apparently fall on his head (see Fig. 277), and then assume its original position, the preacher jumping up and not knowing what has happened. This is, of course, simply burlesque, but always causes merriment.


Fig. 277.

It will be observed that for the formation of the pulpit I only use the sleeve of the left hand, as this saves the trouble of attaching a box to the wrist, as described by Trewey.

## WOMAN AND SPOON.

Here, in Fig. 278, we have a figure of the comic species. The old woman is supposed to be eating treacle with a


Fig. 278.
spoon. The various movements of the woman licking the spoon and swallowing the treacle make this figure a study in the art of throwing expression into shadow figures.

## THE SWAN.

The illustration, Fig. 279, speaks for itself. Certain life-like movements of the swan cannot be adequately described in writing, and must be left to the artistic and inventive nature of the performer.


Fig. 279.

## MAN WI'TH PIPE.

In Fig. 280 we have a shadow figure which enables the performer to show his ability in the art of expression. The bowl of the pipe is attached to the mouthpiece in


Fig. 280.
such a way that upon the least jerk being given to same it falls.

The man is quietly and contentedly smoking, when suddenly the bowl of his pipe leaves the stem and falls, which brings to his face a look of annoyance and disgust. Many expressions of character can be brought into this figure, the extent of which is only limited by the talent of the shadowist.
[HE CONDUCTOR AND LADY VOCALIST.


Fig. 281.

Fig. 281 explains an original shadow figure of my own invention, and I venture to think, with all modesty, that it is one of the best silhouettes in existence. A piece of cardboard is cut in the shape shown in the illustration to form the stage. The dress on the lady singer is formed by having a miniature skirt attached to the wrist. The conductor takes his seat and commences to wave his baton, the lady now enters very demurely, bows to the audience, and makes the movement of singing. If the performer has a lady assistant a good effect can here be introduced by letting her sing a verse of song, the conductor in the figure meanwhile beating the proper


Fig. 282.
time and the woman making certain gestures. At the finish she bows to the audience, turns round, and walks (or rather wobbles) off the stage. Various touches of comedy will readily suggest themselves to the artist, such as the singer bending down and kissing the conductor, etc., etc.

## THE HORSE.

This illustration, Fig. 282, has often been described; but I include it herein as it is an interesting silhouette, as is also the one shown in Fig. 283, which represents the horse with his mouth open.


Fig. 283.

## THE DENTIST.

This is purely a pantomimic shadow-picture. Fig. 284 explains the position of the hands, etc. The dentist makes many attempts to extract a tooth from his patient, and at last succeeds in getting hold of one about as large as his head. This effect is, of course, brought about by the hook held by the dentist clipping a large tooth-shaped piece of cardboard hitherto concealed between the fingers forming the patient's head.


Fig. 284.

With practice the expression of agony and pain can be imparted into this silhouette.


This figure requires no further explanation or description than that given in Fig. 285. I would, however, mention with regard to this and other character studies that the performer will do well if, whenever possible, he takes his figure from a live model. The art of imparting life-
like expression is then more easily learned. I, myself, used to spend hours every day in St. James Park, London, watching the swans, so as to make my silhoriette of the same absolutely life-like in every little detail.

## THE FOWL.

Fig. 286 explains the correct position of the hands to form this shadow.


Fig. 286.

## THE DANCER.

In this silhouette I make my figure stoop down and seratch her foot. Various other little bits of by-play in connection with this figure, 287, I leave to the ingenuity of the performer.


Fig. 287.

## A FRENCH ADVOCATE.

In Fig. 288 is depicted a very good shadow picture. The illustration fully describes the formation of same, so that further explanation is unnecessary.


Fig. 288.

## THE WOMAN AT HER TOILET.

Here we have one of the very best shadow pantomimes aver devised.


Fig. 289.
Fig. 289 shows the first position. The looking-glass is carefully cut out of cardboard, the "glass" portion being covered with muslin, thus forming the faint
shadow seen in the picture. The woman enters, with dishevelled hair, etc., and, meditating in front of the glass for a moment (probably on the difference between her appearance now and that of years ago), she then takes a pair of curling tongs, warms them in an imaginary flame from a gas-jet, then puts them to her lips,


Fig. 290.
which she burns, etc. She then places some hair-pins in her mouth, straightens her hair out, digs the pins in, etc. She then considers for a moment, and comes to the conclusion the back of her hair hardly looks quite fashionable, whereupon she pins on a false "bun" at the back. She then rubs her nose with some preparation she apparently has on the table, after which she powders herself all over, neck and all (see Fig. 290). She then takes a hand-mirror and surveys the back of her head, after which, with a pair of fashionable eyeglasses with a long handle, she bows off.

I have in the foregoing lines simply endeavored to give a rough outline of a few effects to be obtained with a little practice from this silhouette.

## MR. AND MRS. CAUDLE



Fig. 291.
Fig. 291 speaks for itself. Whether Mrs. Candle is perpetrating one of her celebrated lectures on her husband, who has arrived home late, it is hard to say, but it is at any rate a good shadow.

## A GOOD STOR"

The above title and Fig. 292 fullw explain this silhouette. With practice various changes of expression in the figures' countenances can be obtained.


Fig. 292.

## Index.

Balls, Tricks With.
Ball Box, The ..... 167
Ball Which Changes to a Rose, The ..... 173
Marison's Pill Box ..... 171
New Billiard Ball Production ..... 179
Obedient Ball, The ..... 174
Red and Black Ball Vases, The ..... 168
To Secretly Introduce the Ball Under Cup ..... 146
To Palm the Ball-First method ..... 144
"، "، -Second method ..... 145
" ، " -Third method ..... 145
To Produce the Ball from Wand ..... 149
To Reproduce the Ball at the End of the Fingers ..... 146
To Return the Ball into the Wand ..... 150
To Simulate the Action of Placing the Ball Under the Cup ..... 148
Tricks with Balls Requiring Special Apparatus ..... 167
Tube and Ball, The ..... 183
Various Passes in Manipulating Balls-Pass 1 ..... 152

| ، | ، | ، 6 | ، | '6 | 2. | . . 154 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ، | ، | ، 6 | * | ، | 3. | . . 155 |
| ، | ${ }^{6}$ | * | * | ، | 4. | . 156 |
| ، | * | ، | ${ }^{6}$ | * | 5. | . 157 |
| " | 6 | * | " | " | 6. | . 157 |
| ، | '6 | 6 | 6 | 6 | 7 | . 158 |
| " | ${ }^{6}$ | ${ }^{6}$ | ${ }^{6}$ | 6 | 8. | . 159 |
| ، | 6 | ${ }^{6}$ | ${ }_{6}$ | * | 9. | . 160 |
| ، | 66 | 66 | ، | ، | 10. | . 161 |
| * | 6 | ${ }_{6}$ | ، | ، | 11. | . 162 |
| c | 66 | ${ }_{6}$ | ، | '6 |  | . . 163 |

## Cards, Tricks With.

Ace Lost, The ..... 47
Bridge, The-How to Make It ..... 38
Cabalistic Star, The ..... 74
Card Sleights, New Thought-First method ..... 45
" " " " -Second method ..... 46
" ، ، " —Third method ..... 46
Cards, The ..... 18
Changing Card-Boxes ..... 65
Color Change, The ..... 34
Continuous Front and Back Palm ..... 30
Crystal Frame, The ..... 72
False Shuffle-How to Make It ..... 27
" " 6 -First method ..... 28
" " " -Second method ..... 28
Four Kings-How to Make Them Change from Un- der the Hand of one Person to that of Another ..... 44
How to Change a Card ..... 33
How to Force a Card ..... 25
How to Palm a Card. ..... 29
Ladies' Looking Glass, The ..... 57
Long Card, The. ..... 55
Mechanical Changing Cards: ..... 68
Pass, The-How to Make It ..... 18
" " " -First method ..... 19
" " " -Second method. ..... 21
-Third method. ..... 22
-Fourth method. ..... 25
Penetrating Card, The ..... 53
Rising Through the Air ..... 63
Three-Card Trick, The ..... 50
To Distinguish the Suit of any Given Card by Weight ..... 50
To Name All in the Pack in Succession ..... 48
To Name the Cards Without Seeing Them ..... 44
To Slip a Card. ..... 35
To Spring Them from One Hand to Another ..... 36
To Throw a Card ..... 37
Torn Corner, The ..... 59
Tricks Involving Sleight-of-hand or the Use of Specially Prepared Cardis ..... 50
Trick Requiring Special Apparatus ..... 62
Trick with Ordinary Cards Not Requiring Sleight- of-hand ..... 41
Simple Modes of Discovering a Card-First method. ..... 41
"، "، "، ${ }^{\prime \prime} \quad$ —Second ..... 42
-Third ..... 43
Coins, Tricks With.
Continuous Back and Front Palm ..... 80
Demon Handkerchief, The ..... 88
Half-Dollar Wand, The ..... 90
Nest of Boxes, The ..... 89
New Coin Catching ..... 95
Principles of Sleight-of-hand Applicable to Coin Tricks ..... 77
Shower of Money, The ..... 92
To Extract a Coin from a Folded Paper ..... 86
To Make a Coin Vanish from the Box, Though Still Heard Within It ..... 87
To Palm a Coin and yet Show Both Sides of the Hand Empty ..... 80
To Produce Coins from a Lighted Candle ..... 96
To Pull Four Half-Dollars Through a Handkerchief ..... 83
To Secretly Change a Coin ..... 80
Tricks Requiring Special Apparatus. ..... 87
Tricks Without Apparatus. ..... 83
Cup, To Pass One Through Another ..... 150
Cup and Balls, The ..... 142
General Principles of Sleight-of-hand Applicable to Card Tricks ..... 18
Handkerchiefs, Tricks With.
Balanced, The ..... 129
Burning Globe ..... 122
Dissolving, The ..... 125
Egg and Handkerchief Shot ..... 137
Locked and Corded Box, The ..... 118
Multiplication of ..... 132
New Handkerchief and Egg Trick ..... 136
New Sleights With ..... 133
Production of Handkerchief with Aid of False Fingers ..... 138
Red, White and Blue ..... 127
Spirit, The ..... 139
That Cannot be Tied in a Knot ..... 115
To Exchange a Borrowed One for a Substitute ..... 116
Tricks With ..... 114
Which Changes Color, The ..... 140
Hand Shadowgraphy.
Card, Candlestick and Cigar Balance ..... 411
Caudle, Mr. and Mrs ..... 439
Conductor and Lady Vocalist, The ..... 428
Dancer, The ..... 434
Dentist, The ..... 431
Dog and Rabbit ..... 415
Fowl, The ..... 433
French Advocate, A. ..... 435
French Chef and Frying-Pan ..... 416
Gladstone ..... 421
Giraffe, The ..... 423
Good Story, A ..... 440
Hand Shadowgraphy ..... 411
Horse, The ..... 430
Man and the Bottle, The ..... 416
Man with Pipe, The ..... 427
Napoleon ..... 422
New Rabbit, A ..... 415
Preacher, The ..... 424
President McKinley ..... 420
Snuff-taker, The ..... 432
Swan, The ..... 426
Woman and Spoon ..... 425
Woman at Her Toilet, The ..... 436-437
Hats, Tricks With.
Animated Cigar, The ..... 205
Bird Cages, From a Hat ..... 195
Bundle of Firewood, The ..... 201
Cake or Pudding, in Hat ..... 196
Cannon Balls, in Hat ..... 186
Dozen Babies, from a Hat ..... 192
Drums, from a Hat ..... 194
Flower Garden, from a Hat ..... 203
Hats, Tricks With ..... 185
Magic Reticules, from a Hat ..... 192
Magnetized Hat, The ..... 209
The Hundred Goblets, from a Hat ..... 190
Wand Passing Through Hat, The ..... 206
Welsh Rabbit, The ..... 197
Introduction ..... 5
Magic Wand, The ..... 10
Magician's Dress, The ..... 16
Magician's Table, The ..... 12
Miscellaneous Tricks.
Another Man Cut Up To-night ..... 380
Art of Juggling, The ..... 389
Balanced Coins, The ..... 389
Balancing Billiard Balls and Cue, The ..... 394
Ball Spinning ..... 401
Bewitched Fan ..... 284
Bewitched Skull ..... 341
Black Art Up to Date ..... 359
Blindfold Jugglery ..... 397
Bottle and Ribbons, The ..... 240
Box and Bran Transformed to Bottle of Wine ..... 244
Bran Bottle, The ..... 247
Bran Disappearing from a Glass and Reappearing Under a Plate ..... 272
Bran Glass ..... 248
Bran Plate, The ..... 271
Broken Mirror, The ..... 334
Butterfly Trick ..... 251
Cabinet of Proteus, The ..... 331
Cannon-Ball Globe ..... 265
Card Bouquet, The ..... 318
Card, Candlestick and Cigar Balance. ..... 410
Card in the Candle ..... 338
Center of Gravity, The ..... 390
Changing Ladle, The ..... 234
Changing Traps. ..... 301
Chinese Rings, The ..... 255
Coffee Trick Improved, The ..... 273
Complicated Balance, A ..... 408
Cross of the Orient, The ..... 290
Demon's Head ..... 319
Drawer Box, The ..... 230
Egg and Stick Balance ..... 401
Egg Spinning Extraordinary ..... 397
Enchanted Colored Sands, The ..... 276
Fairy Stair, The ..... 315
Famous Egg and Bag Trick, The ..... 277
Floating Coin, The. ..... 289
Flying Watches and Broken Plate, The ..... 329
Gravity, Center of, The ..... 390
Inexhaustible Bottle. ..... 236
Juggling, Art of, The ..... 389
Latest Cigarette Evanishment ..... 293
Magic Picture Frame ..... 326
Miscellaneous Tricks ..... 225
Mysterious Coffee Cups ..... 276
Mysterious Funnel. ..... 242
Mystic Afghan Bands, The ..... 289
Mystic Flight, The ..... 344
New Half-Lady and other Illusions, The ..... 349
Novel Hat Manipulation ..... 406
Obedient Candle, The ..... 270
Pistone ..... 306
Plain Trap, The ..... 295
Rabbit or Dove Trap, The ..... 298
Rabbit Trick, The ..... 312
Remarkable Swordsmanship ..... 393
Rice and Orange ..... 226
Spinning Handkerchief ..... 404
Spinning Hat ..... 400
Stage Tricks ..... 294
Star, The Fairy ..... 315
Stick Breaking ..... 392
Sword and Coin ..... 402
Tambourine and Ribbon Trick, The ..... 281
To Balance an Egg on End of a Straw ..... 269
To Fire Rings from a Pistol, ete ..... 249
Transformation of Paper and Shavings into Coffee and Milk ..... 283
Traveling Billiard Ball, The ..... 405
Vanishing Canary Bird and Cage, The ..... 286
Vanishing Gloves, The ..... 225
Whirling Hoop and Glass of Water ..... 403
Wine and Water Transformation, The. ..... 280
Wizard Omlette, The ..... 252
Wrist or Pressure Trap, The ..... 296
Preliminary Observations. ..... 8
Second-Sight Tricks.
Box of Numbers, The ..... 222
Dr. Lynn's Trick ..... 217
Reading Blindfolded ..... 216
Second-Sight Tricks ..... 211
Thinkophone ..... 220
Watches and Rings, Tricks With.
New Watch Trick ..... 102
Ring Trick, The Coin and Handkerchief ..... 104
Ring, Verbeek's Wedding, The ..... 108
Ring, Wandering, The ..... 111
Smashed Watch, A ..... 98
Tricks with Watches and Rings ..... 98
Watch Box, The ..... 106


[^0]:    "Is magic dead?"' is a question frequently asked, and answered in the affirmative. When the inevitable gentleman in full dress, bearing in his hand the mystic wand, and often about his neck a pseudo-chivalric order, obtained possibly for distinguished services rendered at the court of His Majesty the King of Spades, makes his appearance on the vaudeville board, there comes a wearisome expression on the faces of the "firstnighters,' which if uttered aloud might take the following form: "Dear me! Another one of those sleight-ofhand men with his bag of tricks! We had one last week who explained the whole business. Heigho! Magic is dead and buried. And this fellow! Yes, he is going tn expose things, too."

    This is no exaggeration.
    There are a number of magicians performing on the stage who have such a supreme contempt for their art that they deliberately expose their tricks to gain a cheap laugh from the spectators, forgetting that they are "killing the goose that lays the golden egg." Imagine a great artist like Robert-Houdin doing such a thing! True, he wrote a book on the art of prestidigitation, but, as Rudyard Kipling says, "that is another story."

    It is not the technical work on magic that injures the profession of the prestidigitator, but the public exposés by performers. If magic is dead, it is because of this pernicious practice. The treatise on sleight-of-hand does not appeal to the general reader; it is confined to specialists, amateurs and professionals. And it must be ever so.

[^1]:    Pass VIII. To Pass Two Balls in Succession From One Cup to Another Without Touching Them.-You again place the three cups in a row on the table, secretly introducing under the right hand cup (C) the ball which remained in your right hand at the close of the last pass, and then openly place the three other balls on the tops of the three cups. You then proceed, "I take this ball" (that which is on B), "and place it under this same cup" (B). You really palm it. "I take this other ball", (that which is upon A), "and place it under this cup" (A). You secretly introduce with it the ball which you have just palmed. "I take this last" (that upon C), "and place it under this goblet (A); or, stay, I will pass it invisibly to this one" (C)-really palming

[^2]:    The Butterfly Trick.-This is a trick of Japanese origin, which became very popular two or three years

