

CUPS & BALLS

In

18th CENTURY

FRANCE

OZANAM

(1725)

&

GUYOT

(1799)

IN

ENGLISH TRANSLATION

**Edited and with Introductions
by Sean McWeeney**

Translated by Jane Poveromo

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I am also grateful to Bill Palmer who, in addition to being a practising magician, is probably the world's leading authority on cups and balls, unquestionably the biggest collector of cups and balls on the planet, the curator of the thoroughly delightful "The Cups & Balls Museum" on the internet, and the author of the highly regarded e-book in which he transliterated and modernized the cups & balls material in the 16th century conjuring classic, *Hocus Pocus Junior*. Bill is also de facto potentate of the "Ever So Sleightly" section of the Magic Café (internet) forum where we frequently meet and where, incidentally, I am known as Fortasse. Bill read the copies of the translations once they were completed. He was also the one who

first suggested that I consider incorporating the translations into an e-book to make them accessible to other cups and balls aficionados and the magic fraternity in general. For that, for his words of encouragement, and, lest I forget, his very welcome “sprucing up” of the digital photographs of the Ozanam illustrations, I am very grateful.

Sean McWeeney
April, 2007

DEDICATED
TO
ZARA

PART I

OZANAM

ON

CUPS & BALLS

(cover photograph : “A Gipsy Juggler” (c. mid-18th century), black and white etching by Francois Ravenet (1710-1774), after the painting by Philippe Mercier (1689-1760) in the Louvre.)

Ozanam, Jacques
RECREATIONS
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ET
PHYSIQUES,
OU L'ON TRAITÉ

Des Phosphores naturels & artificiels, & des
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Dissertation physique & chymique.

Avec l'explication des tours de gibeciere, de gobelets, &
autres récréatifs & divertissans.

NOUVELLE EDITION,

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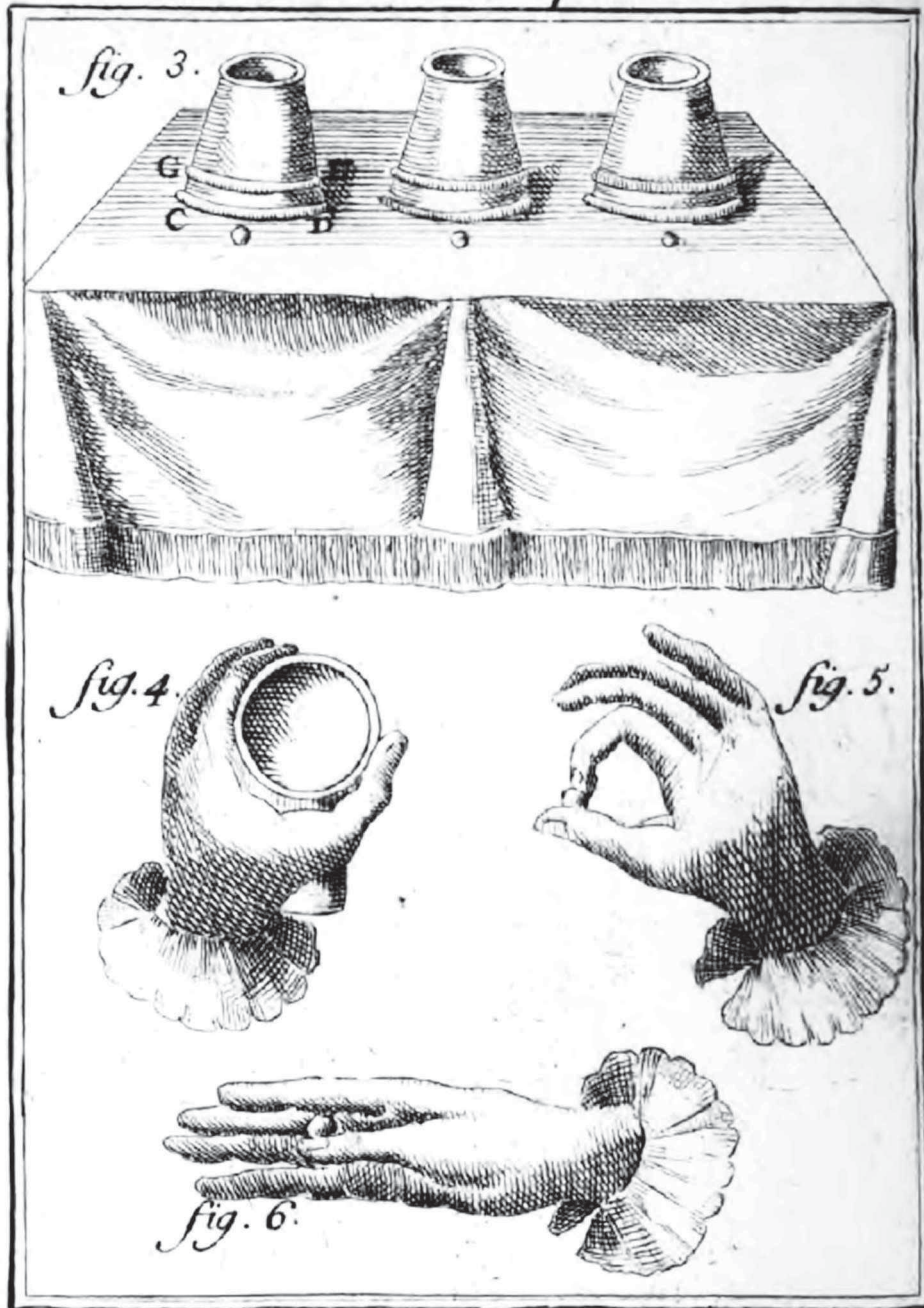
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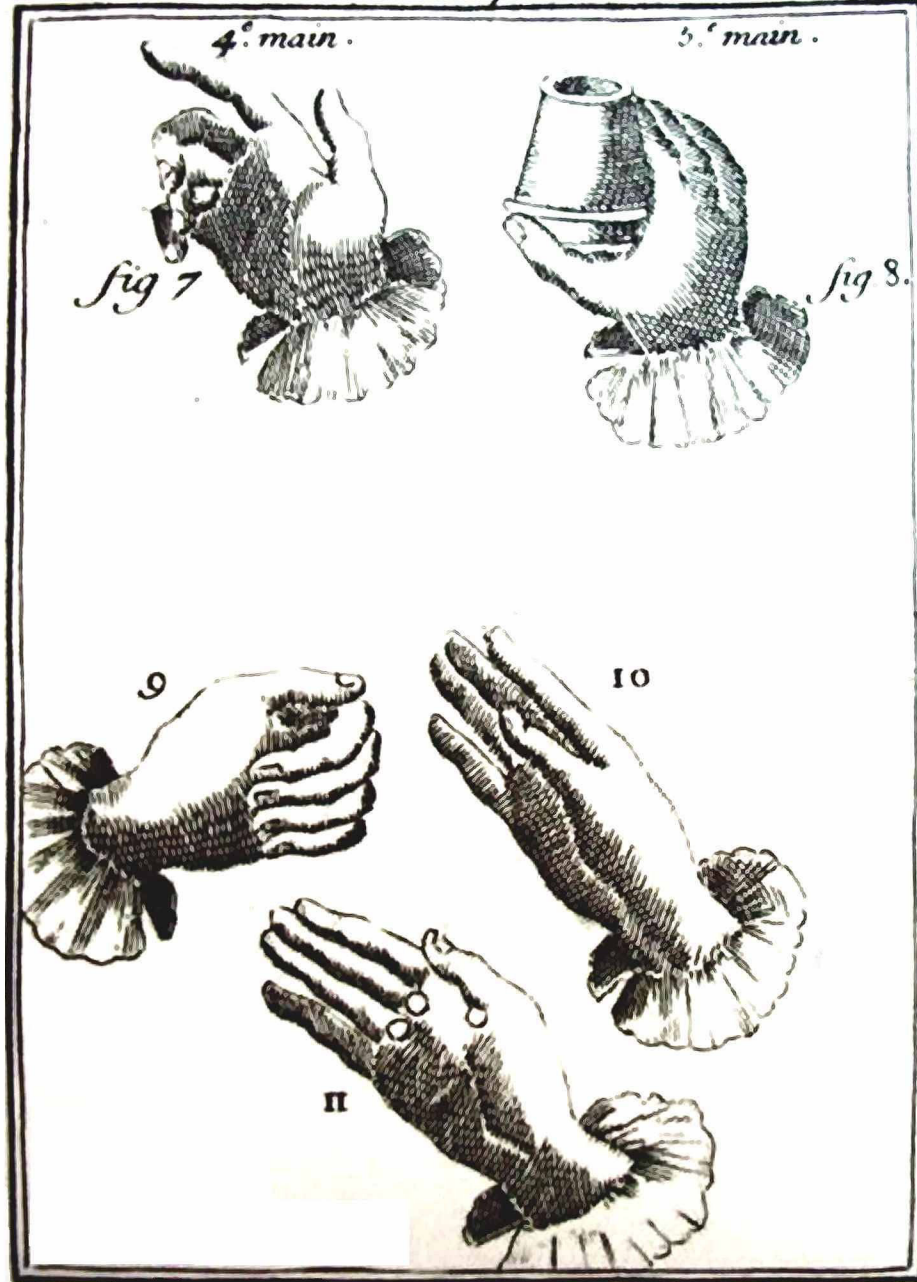
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To. III. Pl. 5.

**INTRODUCTION
TO
OZANAM
ON
CUPS & BALLS**

By

SEAN McWEENEY

JACQUES OZANAM (1640 – 1717)

Jacques Ozanam was born in 1640 at Bolingneux, France to a family of some wealth and provincial political influence. At his father's instigation, his early education was directed towards a future life in holy orders (originally Jewish, the family had long been converted to Roman Catholicism).

From fairly early on, however, it was apparent that Jacques had a prodigious talent for mathematics and the sciences. These scholastic leanings, combined with his decidedly indecorous proclivities towards gambling and excessive partying, would, upon the death of his father, lead him to eschew ecclesiastical life. Instead, he would pursue a career as a mathematics tutor, initially at Lyons.

Although Ozanam's inheritance from his father was not insubstantial, it would be dissipated soon enough by his natural generosity and gambling habits. In search of greener pastures, he moved to Paris where he reportedly earned good money as a mathematics tutor, catering mainly to students visiting from abroad.

His life, moreover, was stabilized by marriage to "*a modest, virtuous young woman without means*". She would bear Ozanam no fewer than a dozen children, all of whom, however, would apparently die young, before she, too, doubtless from the strain and melancholy of it all, perished in 1701, "*deeply lamented by her husband*".

Ozanam's personal misfortunes would be compounded by the outbreak of the war of succession with Spain, in consequence of which a great many of his foreign pupils would be compelled to leave France. With this reversal, his income "*became both small and precarious*". Indeed, it would not be until his induction into the Academy of Sciences in the twilight of his life that Ozanam would finally be rescued from the "*comparative indigence*" to which he had been reduced.

Quite old by the standards of the day, Ozanam would die at the age of 77 on April 3rd, 1717. The numerical symmetry would not have displeased him.

Eulogized as a man of "*mild and cheerful temper, generous to the full extent of his means, and of an inventive genius*", Ozanam would also be remembered for his tolerance and good humour. Devout Catholic though he was, it was said of him that rather than entering into arguments over religion, he preferred to rest content with the proposition that "*it is the business of the Sorbonne to discuss, of the Pope to decide, and of a mathematician to go straight to heaven in a perpendicular line*".

In addition to being a mathematics tutor, Ozanam was a prolific writer and it is on this account that his name has endured through the centuries.

From all indications, Ozanam's books were popular successes, possibly, however, at the expense of his reputation as a mathematician. Indeed, Montucla who succeeded Ozanam as the editor of *Récréations*, would observe that "*having to look to the support of himself and his family, he wisely consulted the taste of his purchasers rather than his own*".

The most popular of all of Ozanam's books, and certainly the one that has had the most enduring appeal through the ages, is his *Récréations mathématiques et physiques* ("*Récréations*") which first appeared in 1694 (in two volumes). It is from the 1725 printing of what was probably the 1723 edition of this work (which by then had grown to four volumes) that Part I of this present book has been drawn in translated form.

To readers of the modern era, it may seem rather incongruous that a discourse on magic tricks should appear in a book about recreational mathematics (or "mathematics for fun" as Singmaster has suggested, if a little light-heartedly). Hall and Albrecht Heefer (the latter in specific relation to another earlier and unrelated work with a similar title) have each demonstrated, however, that the lines of demarcation between magic (including, but by no means limited to, the conjuring arts)

and the sciences (including mathematics) remained fluid and indeterminate well into the Enlightenment.

Small wonder, then, that *Récréations* encompassed not only mathematical brain-teasers but problems drawn from an eclectic range of subjects including music, optics, gnomonics (the science of sundials), cosmography, mechanics, pyrotechnics, physics, watch-making, chemistry and of course, conjuring – all treated separately, to be sure, but nonetheless rolled together into a single work.

Moreover, in the context of late 17th century European society - more specifically, polite French society - mathematical puzzles on the one hand and magic tricks on the other were not quite as incongruous as they might appear today. Rather, they were conjoined by an important commonality of purpose : to make the student of these subjects more socially versatile (and therefore of greater interest and appeal to others) by equipping him with a modicum of skill at the new mathematical puzzles, conjuring tricks and/or other popular science-based diversions and amusements that had become all the rage of the French Enlightenment. Indeed, as Hooper, the 18th century author of *Rational Recreations* argued, the linkage of magic tricks to science and mathematics was designed to “*render useful learning, not dull, tedious and disgusting...butdelightfully alluring, captivating*”.

Befitting its status as the oldest sleight-of-hand trick in all of magic (and presumably also because of its popularity at the time), cups-and-balls is given pride of place in Ozanam’s treatment of conjuring. In broad outline, it consists of a relatively brief description (in comparison to what would later come in more highly developed form from Guyot) of the “tools of the trade” (cups, balls and gibeciere), followed by instruction on the manipulation of the balls, followed by an explanation of a dozen different moves (including the production of no fewer than 14 balls from under a single cup), culminating in a delightful, if messy, proto-chop cup routine, using tallow or wax for adhesive purposes.

Whether Ozanam was a practicing magician himself is unknown although Ponsin (who, with Ozanam, Guyot and Decremps, is generally treated as a constituent member of the great quadrumvirate of classical French writers on magic) was quick to dismiss at least one of Ozanam’s sleights as being full of “absurdity”, “impracticable”, “impossible” even – so much so that Ponsin was satisfied that “*Ozanam never performed the cups and balls and that he had been led into error by the people whom he consulted, unless he deceived himself by being too presumptuous*”.

Ponsin's condemnation, it needs be said, was based entirely on Ozanam's instructions concerning the concealment of no fewer than three balls in a single hand (one in the crook between the thumb and index finger; another in the crook between the index finger and middle finger; and yet another in the crook between the middle finger and the third finger). How, asked Ponsin, could anyone using such a method pick up a cup without dropping the ball lodged in the crook of the thumb and index finger, bearing in mind that this same thumb would have to "move aside" to grip the cup at its widest part?

However, as Ponsin's translator and editor, S.H. Sharpe, has pointed out, Ozanam's method of multiple ball concealment was neither original to him nor his times. In fact, the same method had been described well over a hundred years before by Reginald Scot in his seminal work, *The Discoverie of Witchcraft* (1584) ("*Discoverie*"), leading Sharpe to surmise that "*it seems probable, therefore, that it was an orthodox procedure at one time despite Ponsin's criticism*".

Moreover, as Camille Gauthier argued, Ozanam's method, though awkward, "is by no means absurd" ; moreover, it was, he said, consistent with the principles adopted by the legendary performer, Bosco. Indeed, an even more persuasive validation of Ozanam's method would be furnished in more recent times by the late Scottish magician, John Ramsay, whose celebrated cups and balls routine would begin with the concealment of not three but four balls in one hand.

The question that arises is where did Ozanam's exposition of the cups and balls originate? Although a great deal of additional research would be required before an opinion could be ventured on that question, it should be pointed out that Ozanam, learned and widely read man that he was, would very likely have been aware of earlier published works on conjuring, including not only *Discoverie* but *Hocus Pocus Junior* (1634) which discussed cups and balls in far greater depth and instructional detail than *Discoverie* (and which went through as many as sixteen editions before 1700). It is not improbable that in composing his own book, Ozanam would have read, and been influenced by, these and other conjuring works.

Further, it bears noting that the conjuring material in *Discoverie* derived, on Scot's own admission, from a Frenchman living in London by the name of John Cautares. According to Sharpe, this suggests that some of the moves described in *Discoverie* were

already well-known in France, and thus may have come down to Ozanam as part of the conjuring tradition in his own backyard, so to speak.

Further, as Hall observed, there is “*incontrovertible evidence to show that they* (the tricks described in *Discoverie*) *were being performed in Western Europe for more than a century before Scot wrote his account of them in The Discoverie of Witchcraft*.” (One particularly delightful example of this cups and balls tradition is to be found in what is probably the very earliest description of a cups and balls performance in all of European literature, viz. Teofilo Folengo’s 1517 epic poem *Merlini Coccaji Maccarnices, Libri XVII (Venice)*.)

The point, therefore, is that there was written source material (including instructional material as in *Hocus Pocus*) that would have been accessible to Ozanam when he wrote the conjuring section of *Récréations*.

Based on a comparative analysis of the cups-and-balls material in *Discoverie*, *Hocus Pocus* and *Récréations*, however, it is clear that the latter incorporates moves that are not to be found in either of the former, pointing, therefore, to an additional unrelated source, whether oral or written, or a combination of both.

Whatever may ultimately be revealed to be Ozanam’s sources, cups and balls performers of today will have an instant familiarity with much of what he wrote, so much so that it will remind them of the truth of the old adage that the more things change, the more they stay the same. Whether it is the cup-through-cup (“solid-through-solid”) move with which Ozanam opens his routine (just as so many magicians are wont to do today) or many of the other eleven moves he describes, one will have to just shake one’s head and smile at the uncanny similitude between the way it’s done now and the way it was done three centuries ago.

SOURCES FOR INTRODUCTION TO OZANAM

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3. Hall, Trevor H., Old Conjuring Books, London, 1972 (see espec. Chapter entitled “Mathematicall Recreations”)
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5. Gaultier, Camille (tr. Hugard, Jean), Magic Without Apparatus, 1945, New Jersey, U.S.A, (espec. Introduction, Parts I and II (“Magic and Magicians of France” and “The Literature of Magic”)
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7. Sharpe, S.H (tr.) Ponsin on Conjuring, 2nd ed. Revised (1987), California, U.S.A
8. Bouchard, André, The Grand French Tradition in Gnomonics, The Compendium, Vol. 13, No.2 (June, 2006)
9. Volkmann, Kurt (tr. J. B. Mussey), Conjurers of the Sixteenth Century, The Sphinx, vol.52 (1953), citing Histoire macaronique de Merlin Coccaie, Paris, 1859 being french translation of Merlini Coccaji Maccaronices Libri XVII (1517) by Teofilio Folengo (1491-1544) which, in translated form, reads, in part : “*Boccal took from his pouch some rags sewn together, dirtier than a cook’s apron. He took his gibeciére, which hung from his belt on the right side. Having set up trestles, he laid a table-top across, posted himself behind it like a banker preparing to count money, and adroitly pulled up the sleeves of his jerkin and shirt, like a washerwoman washing laundry by the water and showing off her plump arms to the sailors. From his gibeciére he took three or five copper goblets and I know not how many little balls, somewhat bigger than pil’s). He began his tricks. His swift hand was a marvel, moving so skillfully over and under these little balls that three looked like fifty. Now he would put one cup over the other, now he would pull them apart, turning them bottom upward, and on top he would put sometimes three, sometimes five of the little balls, and suddenly only one would be visible.*”); see also Cups & Balls in 15th and 16th century Art by the same author and translator.

(Translated from Jacques Ozanam’s Récréations Mathématiques de Physiques, New Edition (1725 printing of 1723 edition, Jombert, Paris)

TRICKS WITH A GIBECIERE

Tricks with a gibeciere consist mainly of tricks using cups and several other sleight-of-hand tricks for which we now give an explanation.

Before explaining the cup tricks, with which we begin, we need to explain the most advantageous construction for the cups, and the way in which the balls should be made in order to perform the tricks more skilfully.

- 1) The cups should be two inches and seven lines tall (*one line=3.175mm; thus 2.87 inches tall—ed.*) (Pl. II Fig. 3); two and a half inches wide at the opening; and one inch and two lines wide at the base (*thus 1.25 inches at base – ed.*). The base should be in the form of an inverted skullcap and should be three and a half lines deep (*thus 0.44 inches –ed.*). The (cups) should have two rims, GH and CD (CD at the base to give the cups greater strength, and the GH three lines from the base (*thus 0.37 inches – ed.*) to prevent the cups sticking together when one is placed inside the other (*plate 4, fig. 3*). They are usually made of tin. Moreover, the dimensions I propose here for the

cups are not absolutely necessary. One should simply be careful that they are not too big, that the base is not too small and that they don't stick together.

- 2) The balls are made of cork, about the size of an 'aveline'. You burn them with a candle and when they are red you turn them in your hands until they are nice and round.

To perform with the cups, you need to know how to make the balls vanish for it is this 'escamotage' which is the most difficult part of the cup trick.

In order to vanish it, you must take the ball between the middle of the thumb and the end of the first finger (*plate 4, fig.5*) and roll it with the thumb to between the second and third fingers where you hold it by squeezing the two fingers together. Opening the hand, holding the fingers as wide open as you can, make it appear you have nothing in your hand (*fig. 6*).

When you wish to place a ball you have hidden between your fingers under a cup, you bring it out from your two fingers by pushing it with the second finger into the third as illustrated in the fourth hand (*fig.7*), and you use the third finger to hold it. Next, you take hold of the cup by its base as shown in the fifth hand (*fig.8*) and you lift it in the air, and lowering it very fast, you place the ball inside.

When you perform the cup tricks you must be behind the table and those who are watching should be in front, on the same side as the balls.

You will place the balls either in your pocket or in a gibeciere.

CUP TRICKS

The cup tricks we are talking about consist of eleven or twelve 'passes' or moves.

I

The first move is performed by moving the cups one through the other. For this you should, with the left hand, take (a cup) by its edge, and throw another one inside (with the other hand). The one you were holding in the left hand will fall and the one you threw inside it will remain in the left hand, but since this is done very quickly it will seem that the cups have passed through each other.

II

The second move is performed by taking a ball with the end of the fingers, by placing a ball under each cup, and by pulling them from the base of the cups. To do this you need:

- 1) to have a ball between the fingers of the right hand. Next, tap the middle finger of the left hand with the wand and announce that a ball will appear from it. Having done that, you pull your finger and show the ball you have

ready in your right hand. In order to seem as though you have taken the ball from your finger, you should snap the finger and thumb. For this, you should rub them with wax.

2) you should pretend to throw this ball into the left hand and make it disappear with the second and third fingers of the right hand. (*fig.9 & 10*). Having done that, you should take the first cup on the left of the right hand, open the left hand and immediately move the cup over it as if there were a ball which you were dragging from inside your hand to the table; and so that no one notices that there is something in your hand, you should, as you open your hand, put the cup over it to make it seem as if the ball is under it.

3) You pretend to withdraw a ball from the end of another finger and you show the one you have between your fingers, and by pretending to make it move to the left hand you vanish it. Then, you pass the second cup over your hand as you did with the first. Finally you withdraw a third ball from another finger and show you have it in your hand; and after conjuring it away, you pretend to put it outside the third cup as you did with the two others.

You pretend to withdraw a ball from the top of the first cup and by conjuring it away, you make it seem to pass into the left hand which you close, and as you open it, you say: "*this latter I cast into the air*". Immediately you turn over the cup with the wand and you say: "*Gentlemen, you see there is no longer anything underneath it*". You next withdraw the ball from the second cup by holding the base and at the same time you make the ball you have in your hand appear,

and having made it pass into the left hand as above, you say; *“this last one I sent to the Indies”*, and you show that there is nothing under the cup. You do the same to the third and you send it to wherever you like.

III

The third ‘passe’ is done 1) by making three balls from one; (and) 2) by putting a ball under each cup, and by making all three go under the middle one.

Before explaining this trick, I must point out that every time you wish to make it seem that you are putting a ball under a cup, you must take that ball in the right hand and pretend to cast it into the left hand which you immediately close. Next, you should take the cup with the right hand and make it pass to the left hand as though you were dragging a ball across the table.

To perform this third move, you keep in your hand a ball from the second move which you pretend to withdraw from the end of the fingers of your left hand and, throwing it on the table, you say: *Gentlemen I take some of my “perlinpinpin” powder*”. At the same time, you search in the gibeciere from which you take two balls between the two fingers of your right hand and you utter these barbaric words: *“ocus bocus tempera bonus”*. Next, you pick up the ball which is on the table and say : *“this one is a little bigger”*. You pretend to cut it in half with “Jacob’s wand”. You drop one from your right hand with the one you are holding in the left and throw them both on the table. Then you

take one of them and say: “*here is one that is still a little big*”, and with this one you make two by throwing down the one that remained in your hand.

You place these three balls on the table, one in front of each cup. You pretend to put one under the first cup on the side of your left hand. Next, you cover the ball with the second cup, and as you cover it, you insert the ball which you pretended to put under the first cup. Finally you pretend to put the third ball under the third cup on the right.

After this you say: “*I command the one which is under the left cup to join the one which is under the middle cup*”. Turning over the middle cup with the end of the wand, there are two (balls) under it. After that, you cover once more these two balls and, as you do so, insert the one you pretended to place under the right cup. Then you say: “*by virtue of my ‘perlinpinpin’ powder, the three balls will be under the middle cup*”. You turn over the middle cup and there are three (balls) under it.

IV

The fourth ‘passe’ consists of making the three balls go under the cup at the right hand without anyone noticing. This trick is performed immediately after the third trick as I am going to explain.

Just as you looked for ‘perlinpinpin’ powder during the third ‘passe’, you pick up a ball in your fingers and after turning over the cup, as I told you, you lift

the two cups which are on the left and on the right and knock them one against the other to show there is nothing there and that the balls have moved under the middle cup; then you lower them again and, as you do so :

- 1) you slide under the one on the right the ball that you are holding in your hand;
- 2) you knock it under the table as if you wanted to make it go into the cup through the table. Next, you lift up the cup again and there is one ball and as you put it back down you insert the one you pretended to move through the table.;
- 3) you take a second ball on the table and, pretending to throw it against a cup as if to make it pass through, you vanish it, and you lift the cup where you are surprised to see two balls;
- 4) you take the third ball on the table and you actually throw it against the cup and say: *“this is shameful; it is supposed to go in from under the table”*. You take it and knock it under the table and vanish it. Then, you turn over the cup with the wand where you find three balls, without anyone having seen you place any of them.

V

For the fifth move you place a ball under each cup. Next, pretending to change your mind, you lift the first cup with the right hand and as you put it back down further away, you slide inside it the (ball) you had in your hand for the fourth trick, and you remove the first one. Pretending to place it in the gibeciere,

you conjure it away. You do the same thing with the second and third cups that you did with the first. Next, you turn the cups over and everyone is surprised to see once more a ball under each cup.

VI

For the sixth 'passe' :

- 1) you pretend to put a ball under the middle cup;
- 2) you actually put one on its base (which is now at the top) and, covering it with another cup, you insert the one you conjured away;
- 3) you take a ball which is on the table and conjuring it away you say: "*I'm sending it to the top of this covered cup*". You uncover the cup and there are two balls on the top of the first;
- 4) you cover them again and at the same time slide in the ball you conjured away, and you say: "*I command the one which is under the first cup to climb on to its top and to join the other two*".

You uncover the cup and find three balls on top without anyone knowing where they came from.

VII

For the seventh 'passe'", you cover with the second cup the three balls which you have left on top of the first, and you put the third one on top of the second, that is to say, that you put the three cups one on top of the other and that the

balls are on the bottom cup. You pick up the three cups with the left hand and lift off the first to put it on the table. Next you lift the second one, which is covering the balls, which you move along as you raise the cup and you cover the first one that you put on the table, but in order to drag the balls with this second cup you must first lift the two cups slightly and then promptly take out the one underneath it and, at the same time, cover with the other one, where the balls remain, the cup which is on the table. Then you put back on the two others the one that is still in your hand. This must be repeated several times. The audience, seeing you uncover the cups but not seeing the balls, will not know what became of them. Finally, after having repeated the trick several times, you will no longer put the cups one on top of the other and you will ask people to guess under which cup the balls are.

If they don't guess correctly, you will show that they were mistaken and you will ask them to guess again until they guess correctly and when they have guessed where they are, you will pick up the balls from on top of the table with the cup and let the audience believe they were mistaken. Finally, having tired them from having to guess, you will uncover the cup where they are and you will show them.

Note that to lift the balls from on top of the table you must drag them slightly along the table and lean the cup over to the side where you drag them. The movement you will have made by dragging them will cause them to go into the cup. When they are inside, you lift the cup with the balls, but you must practise this trick well in order to perform it surely and skilfully.

VIII

The eighth 'passe' is to put three balls in your hand : one between the thumb and the first finger; the second between the first and second; and the third between the second and third, as shown in the hand in *Fig. 11*. You rub your hands together, even clap them, and say: "*Gentlemen, you see there is nothing in my hands*". And you show that there is nothing under the first cup and, as you raise it, you will slip in the ball which is between the second and third fingers. You will earlier have taken care to make it slide into your third finger as shown in *Fig.7* in order to make it easy to place under the cup. When you have placed it there, you will slide the ball which is between the first and second fingers into the third finger as you did with the first one. You will lift the second cup, saying that there is nothing there, and put a ball under it as you place it back down. Next, you will move the ball which is in the thumb and put it in the same finger that you put the others. You then lift the third cup and showing that there is nothing under it, you will insert the third one. Finally, you raise the three cups, one after the other, and show there is a ball under each one.

IX

There is a ninth move with the cups where you show only three balls although you actually have four. You place one in front of each cup but you cover only two and as you pretend to cover the third you push it from the top of the table

without seeming to see it and you slide another one under the cup. Then you say: “*Gentlemen, would you like to bet that there is a ball under each cup?*” Those who saw the ball drop, wager that there is nothing under the cup from which they saw it drop and when they have wagered, you have them lift the cup. They are extremely surprised to find a ball there.

X

For the tenth move, leave the balls under the cups, just as they were at the end of the ninth move. Next, take an apple from your pocket and hold it with your small and third fingers. Lift the first cup with the hand in which you are holding the apple in order to remove the ball which is under it, and as you put it back down, deftly insert your apple. Then put back into the gibeciere the ball you have just removed and, at the same time, take out an apple which you place under the second cup in the same way you put the first under the first cup. Do the same thing with the third and have them guess what is under the cups.

XI

For the eleventh ‘passe’, you make three balls appear in the right hand although there is only one, the other being in the left hand and the third in your mouth. To do this, you place three balls on the table and you secretly put one in your right hand and keep it there. Next, you take one of the three balls and make it move into the left but actually put it in your mouth. You take another, which is the second one, and you keep it in your right hand, pretending to pass it into

the left, which you close, letting people believe the ball is there. Then you take the third with your right hand and you open your hand and show there are three balls. Note that when you have put a ball in your mouth, you should pretend to swallow it.

XII

For the twelfth move, you throw three balls onto the table. You take one and say: *“I’m swallowing this one”* but vanish it as you pretend to put it in your mouth, and you bring out between your lips the ball you had put there during the eleventh move, and pretend to swallow it. Then you take the second which you vanish like the first and send it ten thousand leagues beyond the rising sun. For the third, you tell it to disappear and you also vanish that one.

You may, after performing all your moves, do one which is very nice, that is, you put 14 balls in a cup. To achieve this, you show there is nothing under your three cups and as you show there is nothing there you place under the middle (cup) 14 balls which previously you had threaded onto a strand of horse hair - the finer the better - or human hair. Next, you take from your gibeciere 14 other balls and you say you are going to make them all go under the middle cup. To make these 14 balls move under your cup, you take one and tell it to go under the cup, and as you say this, you make it disappear in such a way that no one notices (by putting it with your fingers under your left arm). You take another one and say: *“I’m going to swallow this one”*. You have one in your mouth which you show between your lips. You take yet another one and tell it to fly into the air. At the same time, you turn your hand to throw it down.

Finally, you take them all one after the other and you send one, one way; another, the other way; and after they have all disappeared and there are none left on the table you say: “*Gentlemen, these 14 balls must be under the middle cup*”. You lift the cup and the balls are there.

These are the tricks that are usually performed with the cups. You can, however, do one more at the end, after which you cannot do any more because the balls stick to the top of the cups.

To perform this trick you need to rub the top of the cups with wax or tallow or else apply some to the three balls, and place the three balls on top of the three cups.

When each one is on each cup, you take the three cups and place them one on top of the other. The top ball remaining uncovered, you leave it thus, and say: “*I’m going to take out these two balls which are covered*”. To do this you should have two balls hidden in your hand. Firstly, you take one out of the second cup and throw onto the table one of the (balls) you have in your hand. Then you say: “*I am going to take out the one under the third cup*”. And you again throw one onto the table. Finally, as you show the two cups from below, you show that there is nothing on top and that the two balls have been taken out. You must be very careful to put down your cups gently so as not to cause the balls to fall out. You can again say: “*Gentlemen, take note that there is nothing in my hands*”. (You can even show them inside and out). After showing them, you raise the three cups, one after the other, and as you show them, note

that there is nothing under them. You put them back down quite forcefully so that the balls fall onto the table. You will take a ball which you will hide in your hand and you will say: “*I move this one with my finger and order it to pass under the cup*”. You hide it at the same time and make it disappear. You do the same thing with the other two cups. Then you show that there is a ball under each cup.

To make this move easier to perform, instead of putting two balls in your hand, you can put only one. When you have pretended to take it out from under your first cup, you will take it and vanish it, pretending to send it to the West Indies. You will use the same ball for the second cup and send it very far away. You will use the same one again for the third cup.

It should be noted that you need enough tallow wax in the bottom of the cups to hold the balls inside. Care should be taken to clean the cups well for when you have to start again to perform the other tricks. The balls should be replaced also so that they don't stick to the cups.



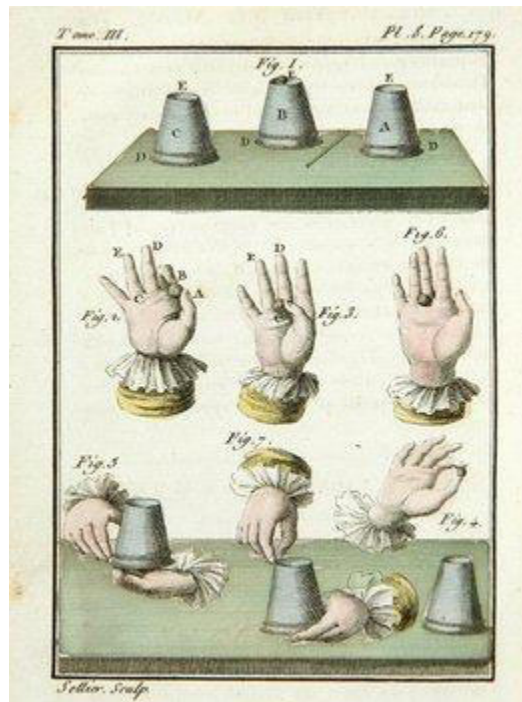
PART II

GUYOT

ON

CUPS & BALLS

GUYOT ON CUPS AND BALLS (1799)



**EDITED AND
WITH INTRODUCTION
BY SEAN McWEENEY
TRANSLATED BY JANE POVEROMO**

NEW
PHYSICAL AND MATHEMATICAL
RECREATIONS

containing what were thought to be the strangest of the genre and which are
being uncovered daily

to which are attached the causes, their effects, the way in which they are set
up and the amusement that can be derived from them as they astound and
pleasantly surprise

NEW EDITION

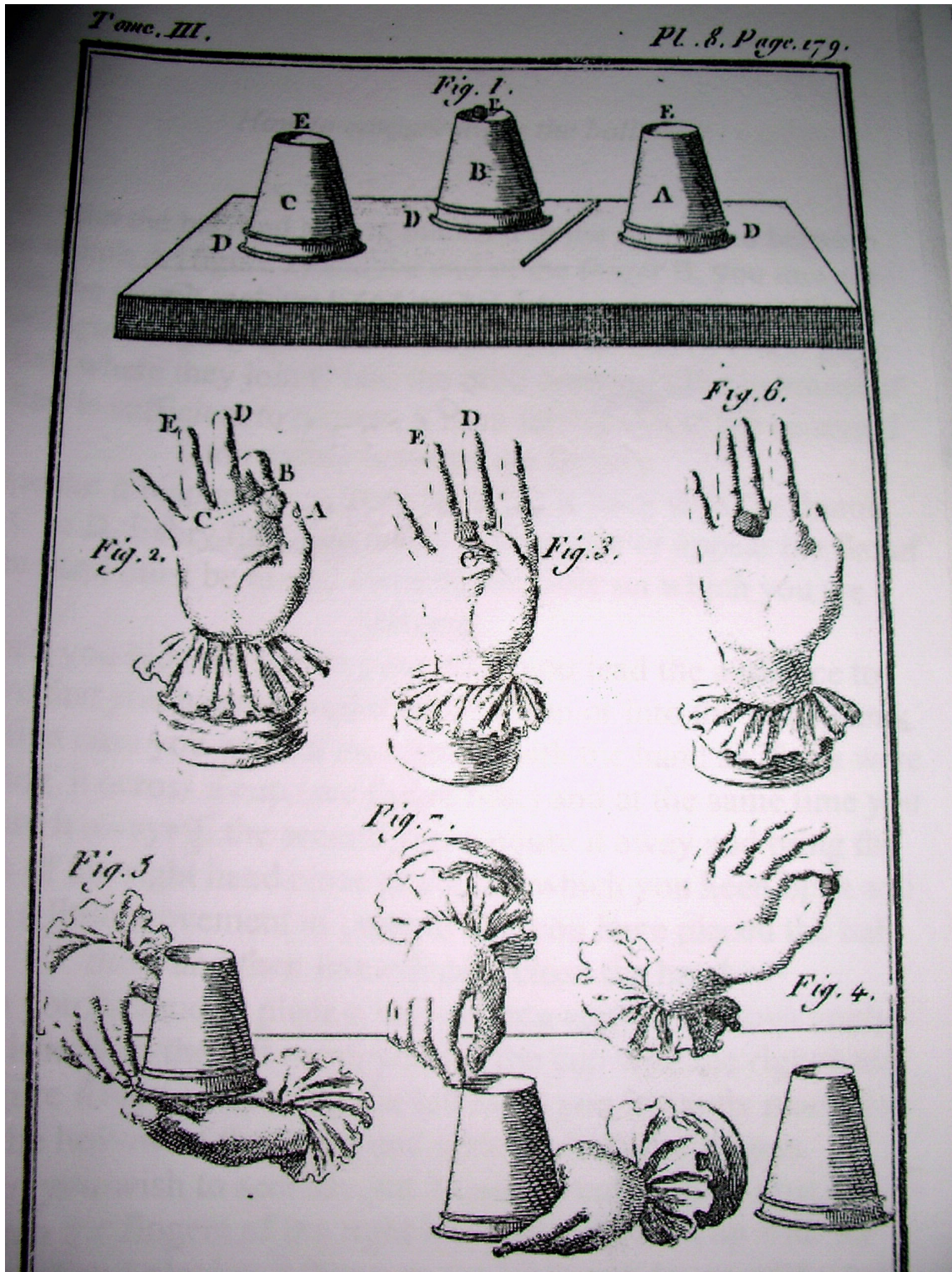
by **M. GUYOT**
of the Literary and Military Society of Besancon

VOLUME THREE

IN PARIS

AT THE BOOKSTORE, RUE S. ANDRE-DES-ARCS

No.46
(1799)



Introduction
to
Guyot on Cups & Balls
by
Sean McWeeney

Edme-Gilles Guyot
1706-1786

A man of many parts, Guyot was a physician, postmaster, cartographer, inventor, member of the Literary & Military Society of Besancon and, of course, a writer.

In 1769, he published the first edition (in four volumes) of his *Nouvelles Récréations, physiques et mathématiques* (“*Nouvelles Récréations*”). Subsequent editions would be published in 1772, 1786, and between 1798 – 1801. (The ensuing translation is drawn from volume III of the last edition, with a 1799 publication date).

Guyot has had a considerably greater influence on the development of cups and balls than Ozanam, firstly, because his treatment of the subject was far more extensive and detailed (twenty-seven fully described phases vs. Ozanam’s twelve) and, secondly because Guyot’s work (on cups and balls, at least) was plagiarized so slavishly in popular French conjuring books such as *Le Magicien Des Salons ou Le Diable Couleur De Rose* and in widely read English language books that successive generations of magicians, whether they realized it or not, were being indoctrinated by Guyot in multiple forms and guises. In contrast, Ozanam’s literary offspring were always more modest in both number and influence.

That raises, incidentally, an interesting bibliographical irony : *Nouvelles Récréations* appears in none of the modern English language conjuring bibliographies (see e.g. Hall, Toole Stott, Heyl), an omission that suggests (correctly it would appear) a consensus among bibliographers that Guyot’s book was never officially (or, at any rate, never avowedly) translated into English. On the other hand, what does appear in these same bibliographies is *The Secret Out* (1859?) whose cups and balls chapter (thirty-one pages long) is (except for a few brief prefatory sentences) a word-for word, illustration-for-illustration clone of Guyot’s chapter on cups and balls, save, of course, that the former is in English and the latter in French. Thus, without ever fully

knowing it, we have actually had an English translation of Guyot (on cups and balls at least) for the past 140-plus years, a fact that appears, however, to have been lost on all of the conjuring bibliographers.

Guyot himself acknowledges Ozanam's earlier work on cups and balls in his preface, stating that some of the readers of the first edition of his work had encouraged him to follow Ozanam's example and include a section on cups and balls in the new edition of *Nouvelles Récréations*. Contrary to what has been represented in many of the modern works on cups and balls, however, Guyot never said that he had been influenced by what Ozanam actually wrote on the subject. On the contrary, what seems to have persuaded Guyot to include cups and balls in his new (2nd) edition was his exposure to a German magician by the name of Kopp.

Kopp's routines were so inspired, so "ingeniously conceived", wrote Guyot, that he became convinced that he would indeed have something new and refreshing to offer his readers on the subject if he were to base his work on Kopp rather than regurgitating already "well known" things (from Ozanam, presumably).

If comparatively little is known about Guyot, a great deal less is known about Kopp. Just who was he? A practising magician or just a conjuring theorist perhaps? Was he a published writer whose work was simply replicated by Guyot or did he personally interact with Guyot to explain and demonstrate his methods to him directly?

These questions, unfortunately, appear no closer to being answered now than they were back in 1952 when the magician and writer, Roy Short, pleaded in the Magic Circle's magazine, *Magic Circular*, for "information of a biographical nature referring to a German 18th century magician named Kopp". Months later, however, the magazine's editor would have occasion to lament the fact that "not one piece of data was ever received and, in fact, no one to whom I have spoken seems to have heard the name or can recall having read of him".

The apparent universality of this ignorance about Kopp is intriguing in light of the fact that Kopp had been cited by name not only in *Nouvelles Récréations* but in the original *British Encyclopaedia* (1797) as the source of the fourteen columns (or seven pages) of discussion of cups and balls contained in that work: "The following method of exercising this simple and ingenious amusement is that practised by Mr. Kopp a German whose performances are deservedly preferred to those of former artists".

Stanyon, too, had mentioned Kopp by name as one of the sources of his lengthy series on cups and balls in the 1912 issue of *Magic* magazine (a series later reproduced in its entirety in *Jinx* (1937).

At any rate, Guyot's (and ultimately Kopp's) influence on the development of cups and balls is directly attested to in possibly the two most influential English language conjuring works of all time : *Secrets of Conjuring & Magic* (Professor Hoffman's translation (1878) of Robert-Houdin's classic French work *La Secrets de la Prestidigitation et de la Magie* (1868)), and Hoffman's *Modern Magic* (1876). In the latter, Guyot is credited as the source of the cups and balls routines then "*most generally in use*", and of the material in Hoffman's book "*as improved by Ponsin*", but with the caveat that "*Guyot, we believe, borrowed it (viz. his cups and balls material) from a German source*".

Guyot's continuing influence on cups and balls is as evident today as it was in Hoffman's time. Certainly, a comparison of Guyot's routines with any random sample of contemporary cups and balls routines would likely reveal a preponderance of passes and moves drawn from Guyot. Of particular note, Michael Ammar, arguably the single most influential teacher of cups and balls in all of contemporary magic, and certainly one of its most widely celebrated performers, acknowledged his indebtedness to Guyot in the introduction to his *Complete Cups & Balls*.

Finally, the structure of Guyot's presentation of the cups and balls merits special comment because it involves an interesting instructional technique that is really quite effective although it does take some getting used to. Before launching into the main part of his presentation, Guyot describes twelve different moves and ball-handling techniques that are to be encountered as the performance progresses through its twenty-seven phases. Some of these moves and techniques are also illustrated in one of the accompanying illustrations in Guyot's book. These moves are identified by sequential Roman numerals. These Roman numerals appear throughout the text to indicate that a particular move is called for at a particular juncture in order to execute some part of the routine in a particular way. (Ozanam used a similar technique in his cups and balls work as well). The other aspect of the presentation that is particularly interesting is the patter. It appears throughout the text and, as Guyot is keen to emphasize, plays a key role in the whole scheme of misdirection upon which most cups and balls routines rely.

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(Translated from Guyot's *Nouvelles Récréations, physiques et mathématiques* vol. III (1799))

RECREATIONS INVOLVING SLEIGHT OF HAND

PARTS WHICH MAKE UP THE GIBECIERE

NOTES ON THE CUP TRICK

Several people who acquired the first edition of this work, having observed that we should, by the example of M. Ozanam, have included the cup and gibeciere tricks, we have sought to oblige them, but without presenting ordinary and well-known things. M. Kopp, a German, wishing to comment mainly on the cup trick, a combination whose sequence seemed very ingeniously conceived and easy to perform, being more pleasant and extraordinary, we felt we should include it in this work, leaving in it some discussion which we deemed necessary to make the explanation easier to understand and which on the other hand contributes inevitably to an understanding of the type of amusement it can provide.

We give the name 'gibeciere' to a kind of bag, about a foot long and eight to ten inches deep, fitted inside with several little pockets in which are placed the various pieces of the trick which can be found quickly and easily below the hand. It is attached in front by means of a belt.

We feel we must warn you that it is not enough to have dexterity in the hands, agility in the fingers and all the things necessary to perform the various tricks which follow. One must also have a glib manner of speaking because it is sometimes necessary to distract the too close attention of the spectators who try either to find fault or to discover the method you use. So, since those who perform the tricks are not wizards, they have to amuse their audience with their patter to prevent them from seeing how the trick is done.

NEW VARIATIONS OF THE CUP TRICK

This trick, as old as it is simple and ingenious, is also, of all the sleight-of-hand tricks, the most amusing and the easiest to perform.

Normally one uses three cups of polished tin, A, B and C (first drawing, eighth plate). They must form the shape of a cone with its pointed top cut off, and with a double edge D towards the base (1) of about a half-inch. The top E should be hollow and spherical so that it can hold the balls (2) without them spilling over the top edge of the cup. You also need to have a little wand called *Jacob's wand*. Normally it is made out of ebony and decorated with ivory on each end. It is used for tapping the cups and as it is frequently held in the hand where the balls are hidden it has the advantage of often keeping the hand closed and changing the position of the hand, without which it would be a little awkward.

All the skill of these tricks is concerned primarily with subtly hiding a ball in the right hand and making it seem to appear and disappear inside the fingers of that same hand. Every time it is hidden between the fingers it is called making the ball disappear/ conjuring it away. The audience must believe that you are putting it in the other hand or making it go under a cup. If, on the contrary, you make it re-appear when it is hidden in the hand, they should believe that it has been taken from the place that you then touch with the end of your fingers.

-
- (1) This edge serves to easily lift the cup and to more advantageously place the hand to insert a small cork ball called a '*muscade*'. See drawing six.
 - (2) They are made out of cork and blackened by burning them slightly with a candle.

How to conjure away the ball.

You take the ball and having placed it in the right hand between the thumb A (figure 2) and the end of the finger B, you move it with the thumb, making it roll on the fingers along the line BC. You move the middle finger D slightly apart from that of E and place the ball where they join C (see figure 3). The lightness of the ball is sufficient to prevent it from falling if it is not squeezed too tightly between the fingers.

To make it re-appear you likewise bring it back with the thumb from C to D. Every time you make it disappear or appear the flat of the hand must be turned towards the table on which you are playing.

When you hide the ball in your hand you lead the audience to believe that you have moved it under a cup or into the other hand. In the first case you make a movement with the hand as if you were ‘throwing’ it across a cup (see figure 4) and at the same time you conjure it away. In the second, you conjure it away and bring the fingers of the right hand close to the left which you keep open and make a little movement to pretend that you have placed the ball there and then immediately close the hand.

When you pretend to place a ball under a cup you always imply that it is now in the left hand, you lift the cup with the right hand (see figure 5) and opening the left hand you instantly place it in the hollow of that hand and slide it along the fingers.

When you wish to secretly put it under a cup it must now be between the fingers of the right hand. You lift the cup with the same hand and placing it down on the table you let go of the ball which, in accordance with its position (figure 6), should be situated to the side and a little below the cup which you take in your hand.

If you wish to secretly put the ball between two cups, on letting go of it you must make it jump towards the bottom of the cup which you are holding and promptly place it on top of the one on which you want it to be placed.

When the ball is placed between two cups and you wish to make it disappear you must raise with the right hand the two cups above the table and hurriedly taking out with the left hand the one under which is the ball, at the same time lowering with the left hand the other cup under which the ball is now placed.

NB. For a clear understanding of the following tricks may I inform you that the following terms will be used in order to explain if what you are being told is feigned or real; and we will apply the numbers to the explanation of the different tricks which follow.

No. I.

Place the ball under the cup, which means to put it in actual fact under the cup with the two fingers of the right or left hand.

No. II.

Put the ball under the cup or in the hand, which means to conjure it away by pretending to close it in left hand which you then half open to imply that you are placing it under the cup or elsewhere. (See figure 3).

No. III.

Make the ball pass under the cup, which means insert secretly the one you have conjured away into your fingers. (See figure 6).

No. IV.

Make the ball pass between the cups, is the same thing, except you place it between two cups.

No. V.

Make the ball which is between two cups disappear, means to withdraw with great speed and agility the one on which the ball was placed and at the same time lower to the table the cup which is on top of it and under which it is now hidden.

No. VI.

Take the ball means to take it between the two fingers of the right hand and to show it before conjuring it away.

No. VII.

Remove the ball from under a cup is to actually remove it with the fingers so the audience can see.

No. VIII.

Withdraw the ball means to pretend to withdraw it with the end of the wand from the cup or any other place by taking back into the fingers the one which is hidden in the hand.

No. IX.

'Throw' the ball across the cup means conjure it away while pretending to throw it.

No. X.

Lift the cups is performed in three ways: with the right hand whenever you wish by putting it back in place, secretly inserting a ball or with the wand which you place on top of the cups to lower them to the table in order to show the balls; balls which you have moved; or with two fingers of the left hand when you wish to show that there are no balls or when some have moved.

No. X1

Cover the cup, that is with the right hand take the one you wish to place over it and at the same time place the ball between the two.

No. X11

Re-cover the cup, that is with the left hand take the cup that you wish you to place on top without putting anything inside.

(Editor's note : text below in italicized font = performance directions; text in normal font usually = patter). Roman numerals embedded in the text = one or other of the twelve techniques or moves described under the foregoing headings)

FIRST TRICK

with a single ball

Put a ball under each cup and remove them

Having placed the three cups and the small wand on the table (as indicated by the first drawing on the eighth plate) we will begin this trick with any pleasant patter one would wish on the origin of the wand and of the cups (1).

You can say for example: there are some people who get involved with the cup trick and know nothing about it. This is not extraordinary since I myself who take a chance performing in front of you cannot conceive a great deal. I am not embarrassed to

avow that I was such a novice a short time ago; that I began to perform in front of a large audience with glass cups. You can imagine I wasn't well received. In fact, I only use this method in front of blind people. Nor do I perform with china cups for fear that out of clumsiness wishing to pretend to break the handles I really do break them. Here are the cups I use. They are made of metal which the alchemists attribute to Jupiter and Mars, that is to say, to speak more humanly and intelligibly that they are made of tin. See and examine these cups (*I show the cups to the audience and replace them on the table*). All my skill, and this is what is admirable, consists of fascinating your eyes and moving the balls without your noticing. Therefore I caution you not to pay attention to my words but to carefully examine my hands (*I show my hands*) and if there is anyone here who has the misfortune to need

- (1) There needs to be a lot of patter in this sort of performance in order to distract the sometimes too attentive eyes of the audience.

glasses he may remove himself, seeing that the most clairvoyant will see nothing.

Here is the little 'Jacob's wand' (*I show the wand with my left hand*). As for the shop from which I get all my balls (1), there isn't a single one in Amsterdam which is so well stocked seeing that the more you take out, the more remains. I remove (VIII) this ball (*I show it and place it (1) on the table*). Notice that there is nothing under these cups (*I show the inside of the cups*) and that I have not a single ball in my hands (*I show my hands*). I take (VI) this ball and I put it (II) under this first cup. I pull out (VIII) a second ball with my little wand and I place it under this second cup (*I actually put it there*). It is right to warn you that most people who perform cup tricks pretend to put the balls inside, but I don't deceive you and really put them inside (*I lift cup B and taking the ball which I had taken in the fingers of my right hand, show it*). I place it back (II) under this second cup. I withdraw (VIII) this third one and likewise place it under this last cup. You may say that is not extraordinary and you could do it just as well. I agree but the difficulty lies in moving these balls across the cups (*I tap the first cup with the wand*).

- (1) You secretly take with the other hand a ball from its gibeciere which you hide between the fingers.

I take out (V11) this first ball (*and show it*) I put it (11) in my hand and I send it to Constantinople (*I open the left hand*). I take out (V111) the latter (*I tap the wand against the second cup*). I put it (11) in my hand and send it to the Indies (*open the left hand*). I take out (V111) the last one. I place it on the table. Notice there is nothing left under any of the cups (*I push down the cups with the magic wand*).

SECOND TRICK

With the single ball which remains on the table.

Making a ball pass through each of the cups and taking it out of the same).

I put the cups back in place. I take (V1) this ball and place it (11) under the first cup. I take it back out (V111). Notice it is already not there (*I lift (X) the cup with my left hand*). I place it (11) under this other cup. I take it out again (V111) (*I lift (X) the cup*). I put it (11) under this last cup and take it out again (V111) (*I raise the last cup with my left hand and place the ball on the table*).

THIRD TRICK

With the single ball remaining on the table

Moving a ball across two and three cups

I never have a ball hidden in my hands as do most people who perform the cup trick (*I show my hands*). I take (V1) this ball. I place it (11) under the cup B (1). I cover it (X111) with cup C and I move (V11) this ball across two cups (*I show it by placing it on the table and put cup C in its place; I raise (X) cup B to show nothing is there*). I take (V1) this same ball. I place it (11) under the same cup B. I re-cover (X11) it with the two other cups C and A, and I move (V111) this ball across the three cups (*I show it and place it on the table*).

FOURTH TRICK

With the same single ball on the table

Passing a ball from cup to cup

Now I beg you to pay careful attention and you will see very clearly this ball pass from one cup into another (*I move the cups further from each other*). I take (V1) this ball and I put it (11) under cup C. There is nothing under B (*I raise it and place the ball under it. I take the magic wand in my hand*). I command the one I placed under cup C to pass under B. You can see it (*I move the end of the wand from one cup to another as if following the ball*). Notice that it has moved (*I lift the cup with the left hand, take the ball with the right hand and show it*). I replace it (11) under cup B. There is nothing under A (*I lift this cup with my right hand and place the ball under it*). I am going to make it pass under this last cup A. Open your eyes, come closer

(1) You can see cups A, B and C as indicated in the first drawing, eighth plate.

(*I pretend that I can see the way it is moving by pointing with the end of the magic wand*). You didn't see it move. I am not too surprised. I don't see it myself. There it is, however, under the cup (*I lift cup A and place it on the table*).

FIFTH TRICK

With the same single ball on the table

With the cups covered, move a ball from one to another without lifting them.

I am correct in telling you that the most clairvoyant would not see much but don't worry. Here is a trick where you will see nothing at all. I take this ball and place it (11) under cup B. I cover (X1) it with these other two cups (*I take one in each hand and place the ball under cup B*). Pay close attention that there is absolutely nothing in my hands (*I show them*). I command this ball to climb on to the first cup (*I lift the two cups put them back in place and show that the ball is on top*). I place (11) this ball under the same cup B. I cover it (*I cover it by taking a cup in each hand and place the ball between the second and third cups*). I take out (1) the ball which is under these three cups, and I throw it across the first cup (*I pretend to throw it*). Notice that I have not made it disappear, having nothing

in my hands (*I show them*). However, it has moved (*I lift the first cup with my left hand and place the ball on the table and the cups in their places*).

(1) But I pretend that I have taken it out and put it in the fingers of my left hand which I hold up in the air, moving the hand from side to side.

SIXTH TRICK

With the same ball on the table

Passing a ball across the table and two cups

You are no doubt surprised that, in fact, having a single ball, I was able, after showing it to you, to move it under this cup without lifting it, but don't let that surprise you. I have even more wonderful secrets. For example, I can move the church bell from one village to another. I have clock faces with which one can hold a conversation from two hundred leagues away. I have a flying chariot which can transport me to Rome in three days. I will show you all these things as soon as they are totally perfected, which is to say in a few centuries. While we wait for me to surprise you with these marvels, I will continue to amuse you. I put (11) the ball under cup A. I take it out again (V111) (*show it and pretend to place it in the fingers of the left hand*). I cover (X1) this cup with cups B and C (*place the ball between these two cups, still using the right hand and pretending to keep it in the left hand*), and I make this same ball move across the table and the two cups (*I put the left hand on the table*). There it is, moved (*I lift the first cup*).

SEVENTH TRICK

With the same ball

***A ball, having been placed under a cup, take it out
and make it move between the two others***

Here is yet another very good trick. I take this ball and place (11) it under cup A. Notice there is nothing under the others (*demonstrate and put the ball under C*), nor in my hands. I take out the ball which is under cup A (*I pretend to take it out and I show the bottom of the cup so that the audience's attention is not drawn to my fingers*). I cover cup C with the two others and I throw it (1X) across these two cups. (*I lift them to show that the ball has moved*).

EIGHTH TRICK

With the same ball and a twelve 'sol' coin

I take this same ball. I place (11) it in this hand and in the other this twelve 'sol' coin. In which hand do you think the ball is and where do you think the coin is? (*Whatever the audience member replies you will see that he is mistaken and that both are in the right hand. This is a pretext for taking a ball out of the gibeciere and putting the coin back*) (1))

NINTH TRICK

**With the ball on the table plus the one
taken secretly out of the gibeciere**

Passing under a cup the two balls placed under the other two

To continue to amuse you, I need a second ball. I take this ball and cut it in two (*I take it in my left hand and holding the wand in the right hand I pretend to cut it. I next place the wand on the table and bring to the end of the fingers that which I have*

(1) one could, without breaking the sequence which links all these tricks, do away with this one and pretend to drop the ball one is using on the ground to have the pretext of taking up another one.

taken from the gibeciere). Nothing is as convenient as being able to multiply the balls. When I need money, I cut and cut again until I have five or six bushels and I sell them to the grocer (*I place the two balls on the table*). Notice there is nothing under cup A. I put (11) the first ball under it. There is nothing under the two other cups either (*I place the ball under cup B*). I take the second ball and place it (11) it under cup C. There is now a ball under cups A and C. I take (V11) this ball out of cup C and I throw it (1X) across the middle cup B. Notice that it has moved (*I lift cup B and place the second ball under it*) and I command the one which is under this other cup A to move under cup B (*I lift this cup to show they are both there and I place them on the table*).

TENTH TRICK

With the two balls that are on the table

***Having placed the two balls under one cup,
move them under the other two.***

When I was in college the professor always told me that I should know how to do compositions in two ways. I have just moved these two balls into the middle cup. I am now going to make them come out, one not being more difficult for me than the other. So I take these two balls and place them under cup B (*in fact, I place only one ball and make the other disappear pretending to put it with the one I took in my left hand*). Notice there is nothing under either cup A or C (*I put the ball I made disappear into the latter cup*). I command one of the balls in the middle cup to move to one of the two other cups, A or C. There it goes already (*I lift cup B to show there remains only one ball and taking into the right hand the ball which is under it, I show it and place it back (11) under cup B*). Let's see which cup it is under (*I first lift cup A and place under it the ball I have taken from cup B*). Here it is under cup C (*I lift this cup*). I command the other ball to move into cup A (*I lift it and show that it has moved*) (1)

ELEVENTH TRICK

With these two balls and a third that is shown plus a fourth hidden in the hand.

Move three balls to one single cup.

All this is nothing but a trifle. I am going to show you something else with three balls (*I take out a third ball from the gibeciere, place it on the table and hide a fourth in the hand*). Note carefully that there is nothing under any other cup (*I lift them and place a ball under cup C*). I take this first ball and throw it (1X) across cup C. Notice that it has moved (*I lift the cup (X) with my right hand*). I take the second ball. I throw it through this same cup. There it is (*I lift (X) the cup again*). I take the third and move it in the same way (*I lift (X) the cup and show that all three have moved*).

(1) This trick is normally performed with three balls but it is more exceptional with two.

TWELFTH TRICK

With the three balls remaining under the cup and the one hidden in the hand.

***Moving two balls from one cup to another
without touching any of the cups.***

Here is another that I have never been able to understand and which will astound you (*I lift cup C and I take out the three balls which were still under it. I place them on each cup and raising cup C, I place under it the ball which was hidden in my hand*). I take this ball (*the one on cup B*) and place it (11) under this same cup. I take this one (*the one on cup A*) and I place (1) it under this same cup (*I also place the one that was hidden in my hand*). I take this last one and throw (1X) it across this third cup C and to show you that I am not deceiving you, here it is (*I lift (X) cup C and place under it the ball in my hand that I have just conjured away*). Notice that in actual fact there is one under each cup. Into which of the two cups, A and C, would you like me to move the one in the middle (*I lift the chosen cup which is assumed to be cup C and show that there are two*)? I again take these two balls and place them once more under cup C (*in fact, I only place one*). Notice there are none under cup B (*I place under it the ball I have just removed and show I have nothing in my hands*). I

command one of the two under cup C to go and join the one under cup A. Notice that it has moved (*I lift cup C and put back these two balls on cup C to show there is only one and I put it back on the same cup. I don't lift cup B under which a ball remains*).

THIRTEENTH TRICK

With the three balls which were placed on the cups and the one which remains hidden under the middle cup.

Moving to one cup the balls placed under the others.

I take this ball (*the one on cup C*) and I place it (11) under this same cup. I command it to pass into the middle one. Here it is (*lifting cup B, I insert the ball I have just conjured away*). I take this one (*one of the two under cup A*). I place it under cup C and I command it to pass into cup B. There it is (*lifting the cup I insert a third ball*). I take this third ball and place it (II) under cup C and command it to pass into cup B along the table and in sight of the audience (*I take the wand in my left hand to pretend to show it the way between the two cups*). You don't see it? Here it is (*I draw it (VIII) with the end of the wand which is seemingly pointing it out*). Come on, move quickly (*I throw it (XI) across cup B and show that all three are there and there is nothing under the two others*). Next, I place the three balls on the table and keep the other hidden in my hand).

FOURTEENTH TRICK (1)

With the three balls on the table and the one hidden in the hand

Multiplying the number of balls

If there are in the audience some people who consider themselves to be wizards, I advise them not to see any more, as what I am going to do is much more amazing. I place (1) these three balls under these three cups. I remove (V11) this first ball (*the one under cup C*) and I place (11) it in this vase. I remove (V11) this third one (*the one under cup A*) and do the same thing (11). (*Each time I lift one of the cups to remove the ball I put in the remaining one, still hidden in my right hand in such a way that after pretending to throw three balls into the vase there is still one under each cup (by means of which I again lift cup C and remove the ball which is under it, and so on, until I have feigned to remove a dozen)*). You may be thinking

that I don't always use the same balls but in order to prove the contrary, here they all are (*I turn over the vase in order to remove the twelve balls which were hidden there*).

NB. If the vase is well made, the inside can be shown and can be turned over on the table before performing this trick so that no one suspects that the balls have been placed there in advance.

(1) To perform this trick you need a vase made of tin (first drawing, ninth plate) at the bottom of which there is a 'bascule' A which can fall freely, that is to say, when turning it upside down on the table, by means of a little catch at the base of one of the handles, B. You place inside in advance, between its base and the 'bascule', a dozen balls.

FIFTEENTH TRICK

**With the three balls which are under each cup
and the one hidden in the hand**

Moving a ball under each of three cups

I place all these balls in my pocket. I take (V1) this one (*the one that remained hidden in the hand*) and I make it pass across the table under cup C (*I make it disappear*). I take another from my gibeciere (*I show this ball*). I make it move across cup B (*I make it disappear again*). I take a third one (*I show this one*) and I make it move under this last cup A (*I conjure it away*). Here they are, all three, moved (*I lower the cups and when lifting them again I place the ball I have in my hand under cup B then I place the three balls on to the three cups*).

SIXTEENTH TRICK

**With the three balls on top of each cup and the one which has been placed
under the middle cup.**

Removing two balls through one cup (1)

Let us use only two balls (*I take the one which is on cup C and place it (11) in the gibeciere. In the fingers of my right hand, I take the one which is on cup B. I show it and with the other hand I simultaneously cover cup B with cup C, moving the one I pretended to put in the gibeciere. I take the ball which is on*

(1) The preceding move should have made the audience think I was playing with only one ball.

cup A with my right hand and showing with each hand the two balls I say): here then are two balls. I place (11) them under cup A (in actual fact I put only the one I have in my left hand). I draw one of these two balls through this same cup A (I show it and place it on top of the cup C. I lift cup A and take the ball below it with my right hand and add: there is only one left (I place it back under the cup). I withdraw (V111) this other ball (I lift the cup and show it is no longer there: I next take one of the two balls which seem to be the only ones remaining and place it (11) in the gibeciere, saying): I'm replacing this one in my gibeciere.

SEVENTEENTH TRICK

**With a ball which is hidden under the middle cup,
another which is under the one covering it, the one remaining in my hand, and
a fourth which is on the table.**

Moving a ball successively through the three cups.

I am now going to perform a very nice trick with this single ball (1). I had forgotten to show you it at the beginning of the performance. I cover (X1) these cups (*I place cup A over C and B*). I take (V1) this ball and I throw it through this first cup (*I lift (X) cup A with my right hand and show that the ball has passed between cups C and A and I put it back in place, placing under it the one I have in my hand.*) I take (V1) this same ball and I throw it (1X) through cup C. (*I lift (X) cup C and show that it has moved and insert the one I have in my hand and replace the cup.*) I take up (V1) once more this same ball and I throw it across cup B (*I lift (1X) cup B, remove the ball which is under it with the left hand, place it on the table and putting the cup back in place insert the ball I have in my hand.*)

EIGHTEENTH TRICK

With the three balls which are under the cups, the one on the table and two taken from the gibeciere.

Making move under a cup the balls placed under the two others, without lifting them.

Now let's return to the trick I interrupted and let's continue to play with three balls (*for this purpose I take two balls from the gibeciere (1) and place them with the one that is remaining on the table on top of each cup*). I take (V) this ball (*the one which is on cup C*) and I throw (IX) it through cup C. There it is (*I lift (X) the cup, show it and insert the one I have in my hand*). I take (VI) this one (*the one on cup B*) and I throw it through cup B (*I lift the cup with my left hand, show it has moved and cover it again*). I draw (VIII) this ball out of this same cup B and I throw it across to C. Notice that it has gone (*I lift (X) cup C and show that now there are two and I insert the one I have in my hand*). I take (IV) this ball (*the one that is on cup A*) and I throw it (IX) through this same cup A. There it is (*I lift this cup with my left hand, show it and cover it again*). I take out (VIII) this ball from cup A and I throw it (IX) through C. There it is (*I lift (X) cup C, show the three balls and insert the one I have in my hand; I put the three balls on the table*).

(1) This move is performed with six balls although the audience believes I am playing with three.

NINTEENTH TRICK

With the three balls remaining under the cups and the three that are on the table.

Moving one at a time the three balls across each cup.

(*I place once again the three balls which are on the table on top of each cup*). I take this one (*the one under cup C*). I throw (X1) it through the same cup. Here it is, moved (*I lift (X) this Cup. I remove (V111) the ball, showing that it has moved and insert the one I have in my hand. I put the ball back on the same cup*). I take this one (*the one which is on cup B*) and I throw it (1X) through this same cup. (*I show that it has moved. I remove it (V11) and insert under this cup the ball in my hand, I put the ball on top of the cup*). I take this last one (*the one on cup A*) and I throw it through this third cup A. There it is. (*I lift this cup A. I remove (V11) and*

show the ball. I insert the one in my hand. I place the first one on top of cup A and nothing remains in my hand). Notice that I have only these three balls (I show my hands).

TWENTIETH TRICK

**With the three balls which remain on the table
and the ones under each cup**

***The balls having been placed back in the gibeciere,
make them return to the cups.***

I take these three balls and I replace them in my gibeciere (*I keep one in my hand*). Here we have come down to everything I had to show you for your amusement. I used to know some very good tricks but I have forgotten them (*I pretend to think for a moment*). Oh, I remember two or three more good ones. Come, my ladies (the balls); come back under the cups (*I turn over the cups*): see how they are alert and obedient at the same time. (*I cover them again with their cups*).

TWENTY-FIRST TRICK

**With the three balls which are under the cups
and the one in my hand.**

Moving the balls across two cups.

I remove (V11) this ball (*the one under cup C*). I cover it (*with cup B, and while moving (111) the other ball which is in my right hand between these two cups*) and I throw it (1X) between cups B and C. There, it has moved (*I lift the cup (X) and show that it has gone and I insert the one in my hand*). I take this other ball (*the one which was under cup B*) and I throw it (1X) likewise through these two cups, C and B. See, it's moved again (*I lift (1X) the cup again showing there are two balls and I insert the third*). I take this last ball (*the one under cup A*). I cover again (*with my left hand*) these two cups, B and C, and I throw (1X) this third ball through these two cups. Here they are, all three (*I lift the two cups and show the three balls, then cover cup C with the two others*).

TWENTY-SECOND TRICK

**With the three balls which are on cup C
and the one in my hand.**

Moving three balls through two cups.

I take (V111) the first ball and I place it in my gibeciere. Likewise the second, and I place (11) it also in my gibeciere. I take the third (V111) and I put it in my gibeciere (*in actual fact I put the one I had in my hand*). Notice that they are no longer under the cups. (*I lift cup A with my left hand and replace it. I raise with my right hand cup C, holding it up with cup B which is in my left hand. I lower cup B very quickly and a little to the side, and at the same time I place cup C on the table under which we immediately find the three balls which have not had time to scatter*).

TWENTY-THIRD TRICK

**With the three balls under the middle cup and three others taken from the
gibeciere.**

Moving the three balls all at once through one cup.

I take three balls again (*I take them from the gibeciere and place them on top of cup B which I cover with cup A*). I command them to disappear and to pass under cup C (*I hastily grab cup B as I did in the preceding trick leaving cup C under which are three balls*). Here they are under cup G (*sic*) which is in the middle of the two others. I remove them, replacing them on this same cup and make them return in the same way under cup C. Finally, I take the three balls and placing them in the gibeciere I pretend to make them cross the table under the cup where the other three remain. Once more I replace two of these three last balls in the gibeciere and take out two white balls which I place on the table).

TWENTY-FOURTH TRICK

With the black ball remaining on the table, two other white balls (1) and a black one hidden in the hand.

Moving three balls from one cup to another.

Let's now perform a trick to prove I don't conjure away the balls. There is nothing under cup C (*I insert the black ball I have in my hand*). There is nothing much under B. I place there these three balls (*the three balls which are on the table, conjuring away one white one*). There is nothing either under this third cup A (*I insert this white ball*). I command one of the two white balls under cup B to pass to cup A (*I lift cup B and take the white ball into the fingers of my right hand and the black one into my right, showing them and saying*): notice that there is only one white one left. I replace these two balls under cup B (*in fact, I only put the white one, and make the black one disappear by pretending to put it with the one in my left hand*) and here it is under cup A. (*I lift cup A and insert the black ball*). I now command the black ball to go under cup A (*I lift cup B, take in the fingers of my right hand the ball which is there and show it*). I replace it (11) under this cup (*I make it disappear*) and I show you that it is under A (*I insert the white ball*). Lastly, I command the white ball which is under cup B to move into A. Here it is moved (*I lift cup A and put the three balls on to each cup, the black one on the middle cup*).

(1) I don't blacken them with a candle but I rub them with a piece of chalk.

TWENTY-FIFTH TRICK

With the three balls that are on top of the cups and the one which was inserted under one of them during the last trick.

Changing the colour of the balls.

If there is anyone who knows how to perform tricks with cups, he must see that it is not possible to perform this trick by normal means and with only three balls. However, I don't have more than three (*I show my hands*). I take this white ball (*the one on cup C*) and I cast it (1X) through this cup (*the same cup C under which I left a black ball during the preceding trick*). I take this black ball (*with the fingers of my left hand*). There is nothing under cup B (*I insert the white ball*). I cast it (1X) across cup B (*to demonstrate, I*

take this ball in the fingers of my left hand). There is nothing under cup A (I insert the black ball). I cast it across to cup A (I take it in the fingers of my right hand to make it disappear). Notice that they have all changed colour (I cover each of the balls with their cups).

TWENTY-SIXTH TRICK

**With the three balls which remain under the cups,
two white balls and a black one which
I remove one by one from the gibeciere.**

Changing the size of the balls.

I remove the white ball which is under cup C (*I take it with the fingers of my left hand and I lift the cup with the right, inserting (1) a white ball which I have removed from the gibeciere*). I make it pass across the table under this same cup (*I take again this ball into my right hand and, placing my hand under the table, I also place it in the gibeciere and take out a black ball*). I remove this one (*the one under cup B, into which I place this same black ball*), and I make it go back across the table (*I take a white ball*). I remove the one which is under cup A (*I insert this ball*). I likewise make it move across the table, and here they are, all three (*I show them and cover them with their cups*).

TWENTY-SEVENTH TRICK

**With the three balls which are under the cups,
two other black balls and a white one
which I take one by one out of the gibeciere.**

Moving the balls from one cup to another.

Note carefully that there are two white balls under cups A and C and a black one under here (*I lift the cups*). I cover these three balls (*cover them under their three cups*). I make the white ball which is under cup C come out across the table.

(1) I keep this ball in my hand with my fourth and little fingers and I lift the cup at the same time as I insert the balls. Then, lowering the cup, I simultaneously move my fist to insert this ball. These balls should be stuffed with horse-hair or cardboard, so that they are very light and don't make noise.

I take a white ball from the gibeciere (1). Here it is (I show it). I put this first ball back in my gibeciere (I replace it), and there is nothing left under cup C (I lift it, holding the ball in my little finger). I remove this ball (the one under cup A), and I move it across the table under cup C (I take a black ball from my gibeciere). Here it is (I raise cup C and show it, inserting this black ball). I replace this other white ball in my gibeciere, and I command the black one which is under cup B to move under the latter. It is no longer under this cup (I lift cup B, supporting with my little finger the remaining ball), and here it is, moved. (I lift cup C and show the ball. Then I take this ball in my left hand and throw it in the air. I catch it in my right hand and pretending to throw it in the air a second time, I drop it in the gibeciere. I raise my eyes upwards, then I lower them as if I could see it fall on to cup B. I lift this cup under which there was a black ball and I say:) here it is, once more moved across this cup.

- (1) So as not to make a mistake, I would have put the black balls into a separate pocket of the gibeciere, and the white one into another.