MAGIC FOR AMATEURS—IV

TRICKS WITH COINS.

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NO. 8. THE FOOLSCAP MYSTERY.

The same principles are here involved as in Trick No. 1, but owing to the different garb in which they are clothed, few will recognize any similarity between them.

A small drinking glass *e*, Fig. 12, having pasted across its open end a piece of white writing paper of the same shade and texture as that upon which the trick is to be performed, constitutes one of the essential parts of the apparatus. The pasting is best done by applying mucilage lightly to the edge of the glass and then resting the glass upside down upon the paper which should be laid upon a smooth flat surface. When perfectly dry, the surplus paper should be trimmed closely to the edge of the glass. The paper cone or foolscap *c*, which should fit closely at its lower part around the glass *e*, is easily made with paper and mucilage. Although not absolutely necessary, the setting of the piece can be enhanced by the use of a picture frame *s*, from which the glass and supporting screws have been removed. The writing paper *m*, upon which the trick is performed, should be stretched tightly in front of the backboard of the frame, and the backboard fastened in place. A flat coin *n*, such as a dime, or a small unmounted picture, is now laid upon the writing paper, which may be either framed or not, as previously stated. The paper cone is then slipped over the glass, and the two are lifted together by pressing the fingers tightly about them near the table, and placed upon the coin or picture. After a few mysterious passes of the hands or wand over the cone, the latter is raised off the glass, and the coin or picture is found to have vanished. The paper covering of the glass, being indistinguishable from the paper surface beneath it, effectually hides the object from view. To bring back the coin or picture *n*, place the cone over the glass, repeat the passes and remove both glass and cone together, whereupon the object is again brought in sight. It is advisable before taking away the apparatus, to remove the cone from the glass and pass the cone around for examination. The prepared glass, however, should not be removed from its white resting place while in view of the audience.

NO. 9. A SUCCESSION OF SURPRISES.

Parts of different tricks can often be combined to form an effective trick differing in many respects from the original ones, yet embodying their principles advantageously. Take the "Disappearing Dime" trick No. 1, and the "Foolscap Mystery" trick described above. Place the apparatus used in both these tricks upon a single large sheet of white unruled writing paper. Select two dimes bearing the same date, and place one of them under the prepared drinking glass before giving the exhibition. After showing the other dime to the audience, place it on the white paper somewhat apart from the drinking glass and cover it with the prepared ring upon which rests the cardboard and unprepared ring. Then cover the drinking glass with the paper cone, and make some mysterious passes with the hands above the rings in the direction of the covered glass. Remove the unprepared ring and then the cardboard so that the spectators can see the dime has vanished. Lift both cone and glass together from their resting place and set them elsewhere on the paper. Below their original position will be seen the dime.

The applause will probably be accompanied by a request to repeat. Before doing so, show the date on the coin so that all will be convinced there is no deception.

Owing to the perplexing apparatus employed, it is usually safe to comply with the request by making the coin travel back to its first position. Then lay it, the same side down as the other coin, upon the paper and cover it with the prepared drinking glass screened by the paper cone. Readjust the ring structure above the first dime and repeat the hand manipulation, making the passes this time in the opposite direction. Upon lifting the paper cone off the glass, the dime is seen to have vanished, but is apparently found under the ring structure when this is removed to another part of the paper. Attention is called to the date on the coin which, of course, is the same as that on the dime previously shown the audience.

NO. 10. PASSING A COIN THROUGH A SET OF CLOSED BOXES.

In common with many of the other tricks here described, the apparatus for this one could not be purchased if one desired to do so, yet the result is as startling and impressive as in many five and six dollar professional illusions seen on the stage and elsewhere. A small baking powder can is employed to vanish the coin, which should be a dime marked by an onlooker for identification. As shown in Fig.

13, the can has a slot *c*, just large enough to permit the coin to pass easily through. The slot is cut with its lower edge on a level with the inner bottom of the can. The set of boxes in which the coin is afterward found should consist of three or four small size flat pasteboard boxes, square or rectangular in shape,

Fig. 12.—ACCESSORIES FOR USE IN A SIMPLE DISAPPEARING COIN TRICK.

and furnished with hinged covers. The smallest one need be no larger than necessary to hold the coin, but each succeeding box should be just large enough to hold the next smaller one. A strip of tin about one by one and three-quarter inches in size is bent into the shape shown in Fig. 14 to serve as a guide for the coin

Fig. 13.—A BAKING POWDER CAN ARRANGED FOR MAKING COINS DISAPPEAR.

as in Fig. 15. To pass the dime into the innermost box, it is merely necessary to slip it into the tin guide *a* inclined upward. Withdrawing *a* permits the respective sets of elastic bands on the different boxes to press down the covers and effectually bind them in a closed position. The performer commences the trick by coming forward with the tin can in his right hand, the bottom of the can in his palm and the slot at the right. He removes the cover with his left hand, and passes his wand around the inner part of the can turned upside down to prove there is nothing in it. He then requests that the marked coin be dropped into the can, after which he replaces the cover and shakes the box sidewise, so the audience can hear the rattle of the coin inside. He continues shaking the box in this way until the coin has slipped through the slot

Fig. 14.—THE TIN GUIDE USED IN THE BOX TRICK.

Fig. 15.—MEANS OF PASSING A COIN INTO THE INNERMOST ONE OF A SERIES OF RUBBER-BANDED BOXES.

in the bottom of the can and into his right hand. Then with his left hand he places the can on a table apart from the set of boxes which, with the tin guide pointing upward, has been previously concealed behind a handkerchief on another table. Walking toward

these boxes from the left, with the dime concealed in his right hand, the entertainer deliberately slips the coin into the tin guide, under cover of his left hand with which he holds the boxes, and withdraws the guide, letting it fall on the table. This movement will not be noticed if the performer explains that he was looking for a suitable cover for the can, but that as he cannot find one he will use a handkerchief instead. Bringing forward the handkerchief which previously served as a screen for his movements, he spreads it over the can, and then places the set of boxes near the covered can in full view of the audience. After explaining how he intends to pass the marked coin from the can to the innermost one of the series of boxes, each one securely bound with three rubber bands, he passes his wand from the can to the boxes. Then, removing the handkerchief he shows the can empty and hands the nest of boxes to the audience to be opened by them.

The surprise created by the disappearance of the dime from the tin can and its reappearance in the innermost box of the set is still further increased when, by the marks of the coin, it is shown to be unmistakably the one at first placed by the audience in the can.

Science and the Atmosphere.

These are times when any, or indeed all, information concerning the air is eagerly sought after by those who are striving to attain mastery over its powerful forces. Upper and lower currents are becoming everyday expressions, and the students both of aerial navigation and wireless telegraphy are many. Studies of the air, and especially its relations to the conditions of the weather, were encouraged and fostered by the authorities of the Smithsonian Institution more than half a century ago. The everwise Henry aided with substantial grants the development of the new science of meteorology at that time, and the names of Coffin, Loomis, Ferrel, Abbe, and others are to be found among the list of authors whose papers found ready acceptance for publication in those early days by the Institution.

More recently came the substantial gift of Hodgkins having for its chief object the establishment of a fund for the prosecution of studies in the atmosphere. Langley's pioneer contribution to aerial navigation is scarcely a decade old, and therefore still fresh in the memory of us all. The study of the atmosphere requires not only a practical knowledge of the conditions that prevail in that medium, but also a knowledge of the laws in science that govern the movements of the currents, ever restless like the waves of the ocean, that move hither and thither exerting their wonderful influence upon our earth.

The most profound of our American students of meteorology—one who has devoted a lifetime to the study of that subject—is Cleveland Abbe, now senior professor in the service of the United States Weather Bureau. This distinguished scholar has gathered together in a volume of over six hundred pages some twenty-five papers, mostly translations of articles by learned meteorologists of Europe, which, with the title of "The Mechanics of the Earth's Atmosphere," has just been issued as No. 1689 of the Smithsonian publications. A summary of the contents of this volume would require many pages; and therefore it can only be said that the series of papers begins with Hadley's classic essay "Concerning the Cause of the General Trade Winds," with which our modern interest in the science may be said to have been inaugurated. Kerber's masterly study on "The Limit of the Atmosphere of the Earth," which has received so much attention from balloonists, is included, and nine papers by Von Bezold are among the valuable contents of this important volume.

An adequate index facilitating the finding of the more important topics mentioned in each of the essays brings the work to a close.

Steam heating for snow removal around switch points has been successfully employed, according to the Railway Age Gazette, in the Erie station at Jersey City. The installation is for twenty-six sets of points, and has been in service for three years. A 2-inch main is led from the power-house in the adjoining yard, and a 1-inch pipe to each switch. Two lines of pipe forming a loop are placed between switch sleepers under the points, the ballast first being removed. Automatic traps discharge the condensed water and thus prevent freezing. The snow melts as it falls, and no attention to the points is required. Throughout the severe winter of 1909-10 no difficulty was experienced, and a small force kept the pipe-lines and detector bars clean.