THE MAGICIAN'S OMELETTE.

BY WILLIAM B. CAULK.

The magician has never proved himself an adept at the art of cooking, from an epicure's standpoint, yet the ease with which he can bake cakes in borrowed hats and cook omelettes in empty pans has long been a source of wonder to the economical housewife as well as to the professional cook.

To see the magician hold a small, shallow, empty pan over the blaze of a spirit lamp for a few moments, when an omelette, done to a turn, appears in the pan and is cut up and distributed to the audience, one is almost convinced that at least one person has solved that most perplexing of all problems, how to live with-

out work. But has he solved it? No! my friend, no more than you or I. He has merely deceived you, but most cleverly, you must admit.

The pan is without any preparation whatever, but so much cannot be said of the wand, which he is continually stirring around in the pan. This wand is hollow, with an opening at one end only, and in the wand, previous to the trick, of course, is placed the properly seasoned ingredients of an omelette, after which the end is closed with a metal plug that is turned and enameled to correspond with the opposite end of the wand.

When the pan is being examined, the performer is holding the wand in his hand, and such an innocent-appearing black stick

is never suspected of being in any way connected with the trick

Just before holding the pan over the lamp the performer finds it a most easy matter to remove the plug from the end of the wand, when by holding the wand by the closed end he can empty the contents into the pan in the mere act of passing the open end of the wand around the inside of the pan.

The metal of which the pan is made being thin, and there not being a great quantity of the omelette, assisted by a large flame from the lamp, it only requires a few moments to cook the omelette, when it is turned out on a plate and carried down to the audience.

It is hardly necessary to say that when the cooked omelette is carried down, the wand is left on the stand, which prevents any inquisitive person asking to

THE BATTLE CHARIOT.

The chariot was used in antiquity for the battle, the

chase, in public processions and in games. It had two wheels and was drawn by two horses, and when one or two horses were added they were attached to each side of the main pair by a side trace, fastened to the front of the chariot. These chariots have only come down to us in fragments, with the exception of the one in the Archæological Museum of Florence, which is a unique example of a war chariot, the so-called "Biga di Frassino," found by Rosselineo in a tomb at Thebes. It is certainly as old as the fourteenth century B. C. It is probably a trophy obtained in the north by some Egyptian warrior. There is an entire absence of metal in the construction. Immediately on the axle without springs of any kind rests the basket or body of the chariot, which consisted of a floor to stand on, and a semi-circular guard around the front and about half the height of the driver. It is entirely

open at the back, so that

the combatants might leap to the ground and up again as became necessary by the exigencies of action. There was no seat, and generally in war chariots there was only room for the combatant and his charioteer to stand in. The pole as in the present instance was usually attached to the middle of the axle, although to outward appearances it looked as though it sprang from the front of the basket. At the end of the pole was the yoke, which looked like a ram's horns. Depending from this by leather thongs was a Y-shaped piece, which preferably took the place of the modern horse collar. Probably broad bands were also fitted around the chest of the animals. Besides the harness of each horse there was

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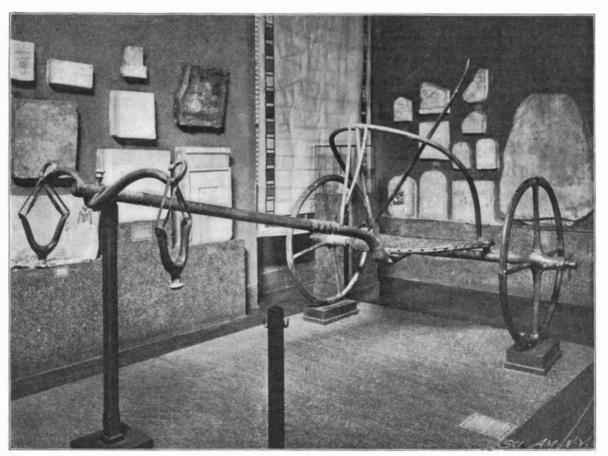
a bridle and a pair of reins somewhat in the same style as in use at the present day. These were made of leather and were ornamented with studs of ivory and metal. The reins were passed through rings attached to the collar and were long enough to be tied around the waist of the charioteer in case of his having to defend himself. The wheels and body were usually of wood strengthened in places with bronze or iron. The wheels had from four to eight spokes and the tires were of bronze or iron (in the present instance ash was used) and the pins which secured the felloes were of fossil bone. This description applied to the chariots of almost any of the nations of antiquity, the difference consisting



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chiefly in the mountings. Thus the chariots of the Egyptians and Assyrians, with whom the bow was the principal arm of attack, were richly mounted with quivers full of arrows, while those of the Greeks, who used the spear, were plain except as regards mere decorations. The Persians and the ancient Britons used a class of chariots having the wheels mounted with sharp, sickleshaped blades which cut to pieces whatevercame in their way. This was probably the invention of the Persians.

The use of the battle chariot really belongs to the heroic period. The warrior standing by the side of his charioteer was driven in front of the line to invite hostile warriors to single combat. After the strategic skill of a commander superseded the demands on his personal valor, the chariot was transferred from the battlefield to the hippodrome, where alone its original form was preserved. The description of the Homeric battle chariot therefore to a great extent also applies to the historic chariot of the race course. The small diameter of the chariot wheel may be explained from



THE ONLY PERFECT WAR CHARIOT OF ANTIQUITY—THE "BIGA DI FRASSINO."

the desire of preventing the chariot from being opposed by the impediments in the battlefield, such as debris or dead bodies. The rim was usually formed of four felloes in which the four spokes were let. The upper rail, which was of either wood or metal, varies greatly in form and was intended to be grasped by the warrior on jumping onto the chariot, while the front part served for fastening the reins and the traces of the "wheel horses." In the Roman triumphal chariot a covering of leather served to ward off missiles, and later on the sides were composed of strong boards. Unfortunately we know very little of the vehicles of every-day use. They nearly all seem to be a variety of what we now term the "gig."

American Physical Development.

Dr. Angelo Mosso, while in America, made a minute study of the system of physical education, particularly as carried out at the athletic clubs of the American seats of learning, says The London Lancet. Referring to the Boston Gymnasium, he says: "The interest and the wonder with which these academic adjuncts inspire me awaken a sense of melancholy when I think how far we in Italy are removed from such perfection. It is enough," he adds, "to look at the passers-by in the American streets to be convinced how much more developed and strong they are than our compatriots. The boys and girls are in point of physique far superior

> to ours. All the public takes interest in physical exercises-every journal being compelled to report athletic competitions, regattas, football encounters, golf matches, and such like, because its readers have even a greater enthusiasm for those topics than for the strife of parties. America teaches us, by the plainest and most impressive of examples, that physical education may be carried to perfection without any military object. In the States no one dreams of becoming a soldier. If military force is required it is provided, as in Great Britain, by voluntary enlistment. Nevertheless, America and the British Isles are precisely the two countries where physical education has reached its highest development. My admiration for this New World is all the greater when I reflect that its civilization

is that of the future, which, even for Italy, will have better days in store."

October Building Edition.

The SCIENTIFIC AMERICAN Building Edition for October is a beautiful number of this unique periodical. The cover, which is in colors, is a modern cottage at Larchmont, New York. The artistic features of the number include F. W. Ruckstuhl's "Wisdom," the late Cornelius Vanderbilt's residence, the "Breakers," at Newport, and Golden Gate Park, at San Francisco, an elaborately illustrated article showing the attractive features of this wonderful park. The houses which have been selected for this number are of unusual variety and excellence and include brick, half-timbered, clapboard, shingle houses and inexpensive "bungalows."

The Current Supplement.

The current Supplement, No. 1241, has a superb

view of the Dewey arch erected in New York city as a decoration during the recent fêtes. The construction of the arch is the subject of a full article. "Acetylene for Lantern and Eularging" is discussed. "Works of the Diamond Match Company" is continued and illustrates the elaborate machinery employed. "Robert Wilhelm Bunsen" is a full biography. "An Advance in Measuring and Photographing Sound," by Prof. Benjamin F. Sharpe, is an important paper on physics elaborately illustrated. "Boats and Sails-Tools for Testing Boat Models," by Walter Burnham, is a most important and critical study and is fully illustrated. "The Modern Warship as Combining in Itself the Highest Results of Skill, Ingenuity, and Scientific Knowledge" is an address by Rear Admiral George W. Melville, Engineer - in - Chief, United States Navy, and was delivered on the occasion of the seventyfifth anniversary of the

founding of the Franklin Institute.

Contents.

| * | (Illustrated art | icles are |
|-----------------|--------------------|-----------|
| | mining interest of | |
| Autonio | bile news | 246 |
| Bacteria | as destroyers of | f ma- |
| sones | / | 244 |
| Poot lift | ing machine, prize | 250 |
| Deet mit | 16M | 252 |
| DOORS, I | alue of | 244 |
| Bread, v. | 8108 01 | 251 |
| Building | Edition | |
| Chariot. | bat tle* | |
| " Colum | bia *** | 241. 24 |
| " Colum | bia'''bia'' Sham | rock" |
| ın dr | y dock | 245 |
| Cycle pa | tb | 245 |
| | across the Gre | |
| | | |
| | conduit for stree | |
| | | |
| Plactric | al notes | 940 |
| Vicatrio. | vehicle, Riker* | |
| THEORETIC | ACTURE. Trigot | 42 |

| , | narked with an asterisk.) | |
|---|--------------------------------|----|
| | Energy wasters | 24 |
| | Engineering notes | 24 |
| | Fires in the United States | 94 |
| | Fish fry, exchanging | 24 |
| | Inventions recently patented | 95 |
| | More intons recently patented | 20 |
| | Marconi telegraphy | |
| | Matcher bead* | 24 |
| | Omelette. magician's* | 25 |
| | Physical development | 25 |
| | Railroads in 1898 | 24 |
| | Science notes | 24 |
| | Science notes | 24 |
| | "Shamrock "* 241, | ~ |
| | | 24 |
| | Sounds, reflection and refrac- | |
| | tion | 24 |
| | Statistical duplication | 24 |
| | Supplement, current | 25 |
| | Testing tank, investigations | |
| ı | with | 24 |
| | | |