

**THE PUPPET SHOW AT THE EXPOSITION.**

Among the novelties that have been brought together in the "Bue de Paris," which would of itself suffice to justify the name of "big fair" that has been given to the Exposition of 1900, there are few that deserve as much attention as the little theater in which MM. A. and H. Guillaume exhibit their puppets. Here the resources of mechanics, combined with the art of the decorator, have been employed in designing a spectacle far from commonplace. Even in antiquity there were puppet theaters for grown persons, and in the Middle Ages, in the Passion plays, puppets with movable heads and eyes were employed. Under Louis XIV. the puppet impresario was Brioché, who earned about £1,365 in three months' representations at Saint Germain, in the presence of the Dauphin. In the middle of the last century puppets were all the rage, and it was considered fashionable to have puppet exhibitions at one's house. The greatest artists did not disdain to decorate puppets. Some dolls were painted by Boucher, and for them certain pieces were composed especially by Malézioux, of the French Academy. In our own time, about thirty years ago, Mme. George Sand took great interest in the subject, and at her Nohant estate gave representations that were much enjoyed by her guests. The MM. Guillaume, two artists who are well known to every one, are therefore simply keeping alive a tradition. Their puppets, say La Nature, have not only been carved, painted and dressed by true artists, but are so constructed as to resemble living persons through the naturalness of their motions.

The metallic rod, A (Fig. 3), by which they are supported, is connected by a universal joint with a tripod, and is kept in a vertical position by a counterpoise, situated at its lower extremity. When placed upon the stage, the arrangement requires no attention whatever. The universal joint gives the rod a flexibility and mobility not to be found in puppets suspended by wires. Through the hollow interior of the rod pass the links, F, by means of which the limbs, eyes, mouth, etc., are operated. At the bottom, and near the counterpoise, small hand-levers, N, are provided, for the purpose of actuating these links, somewhat in the same manner as the keys of a clarinet are manipulated.

The spectacles are chiefly of a satirical and humorous type, although military maneuvers and fairy scenes are often represented. For certain pieces, there are no less than 200 movable figures and as many dummies. The total number of puppets employed is more than 4,000, about 60 of which, completely jointed, are more especially designed for speaking plays. Each of these figures is then manipulated by a man who is concealed beneath the projecting edge of the stage, and who has his hand upon the handle-lever of the puppet speaking the proper words as he moves the figure. The manipulation requires a certain amount of practice and nimble fingers. The puppet is played, so to speak, as one would play upon a musical instrument. Since the puppets are mounted upon a tripod, the same person can be placed in charge of several of them and pass very easily from one to the other. Certain of them are marvels of ingenuity, and perform motions that are charming by reason of their naturalness. Even those which are designed merely for spectacular effect have been fashioned with the greatest care, and, among these, we may mention especially the cavalymen, in which the motions of both the rider and the horse are wonderfully true to nature.

The stage is as well equipped as that of a large theater, but not in the same manner, since it has been the desire to avoid the loss of time that occurs through the shifting of the scenes. The scenes are arranged in such a way that they are always in place. Four backgrounds are affixed permanently to a large drum (Fig. 1), which is capable of turning on its axis. It is, therefore, necessary merely to cause the drum to rotate in order to bring to view the scene that is needed. The puppets, isolated or mounted in groups, are arranged

all around upon shelves. Some of the pieces are heavy, and would run the risk of being destroyed if they were carried by hand; and so for those that are housed at the lower part there is arranged an elevator, which raises them quickly to the circular floor placed at the level of the stage. As soon as they have passed before the spectators they are lowered on the other side. For the defiling of a regiment, the scenery represents a village with a fort in the distance. In front (Fig. 2) is arranged a traveling road formed of two parallel endless chains, C, which are provided here and there with hooks, N. Each row of soldiers is mounted on a board provided with rings which engage with the hooks, and all are carried along at the same speed and at the same distance apart. The officers on horseback are arranged in the same way, and the rocking motion which gives them a semblance of life is produced by means of a cam.

The tail end of the regiment, which is descending from the fort while the head is crossing the stage, is composed of silhouettes, mounted upon an endless chain arranged vertically along the frame forming the scenery. One of the scenes includes two changes of

ture of Asia Minor and Phrygia would thus appear to be further established, not only by the evidence at Hissarlik, but also by discoveries in the eastern parts of Greece and in Cyprus.

**Pagodas.**

It is not to China only that pagodas are confined, says The Builder's Journal. At Kew Gardens there is a large pagoda. It was erected in 1762 by Sir William Chambers, the architect of Somerset House. His own description of the pagoda as it appears in his work, "The Gardens and Buildings of Kew," is interesting. He says: "The tower commonly called the Great Pagoda was begun under the direction of William Chambers in the autumn of the year 1761, and covered in the spring of 1762. The design is an imitation of the Chinese Taa. The base is a regular octagon, 49 feet in diameter, and the pagoda is composed of ten stories, all of them octagonal in plan. The lowest is 26 feet in diameter, exclusive of the portico which surrounds it, and is 18 feet high. The second is 25 feet in diameter and 17 feet high, and all the rest diminish in diameter and height in the same arithmetical proportion to the ninth story, which is 18 feet in diameter and 10 feet high. The tenth story is 17 feet in diameter and with the covering 20 feet high, and the finishing on the top is 17 feet high, so that the whole structure from the base to the top of the 'Fleuron' is 163 feet." It is not generally known that at Osborne there is a garden cottage in the shape of a pagoda, where none may enter except Her Majesty. This cottage holds nothing but mementoes of the late Prince Consort and relics of the Queen's youth, as well as the toys and games of all her children, many of which the Prince Consort made himself. The pagoda at Pao-tah is the most curious in China, and is regarded with great veneration and respect by the Chinese, for it is the only pagoda on which trees may be seen growing. The Chinese have a leaning pagoda at Ningpo.

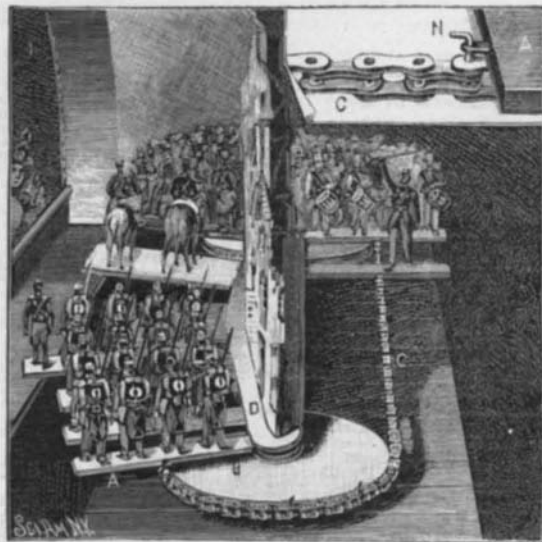


Fig. 2.—AUTOMATIC MARCH OF SOLDIERS.

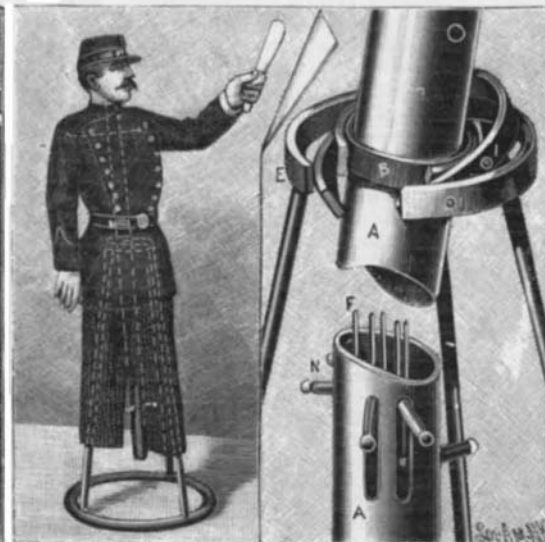


Fig. 3.—MODE OF SUSPENSION AND THE MANEUVERING OF A PUPPET.

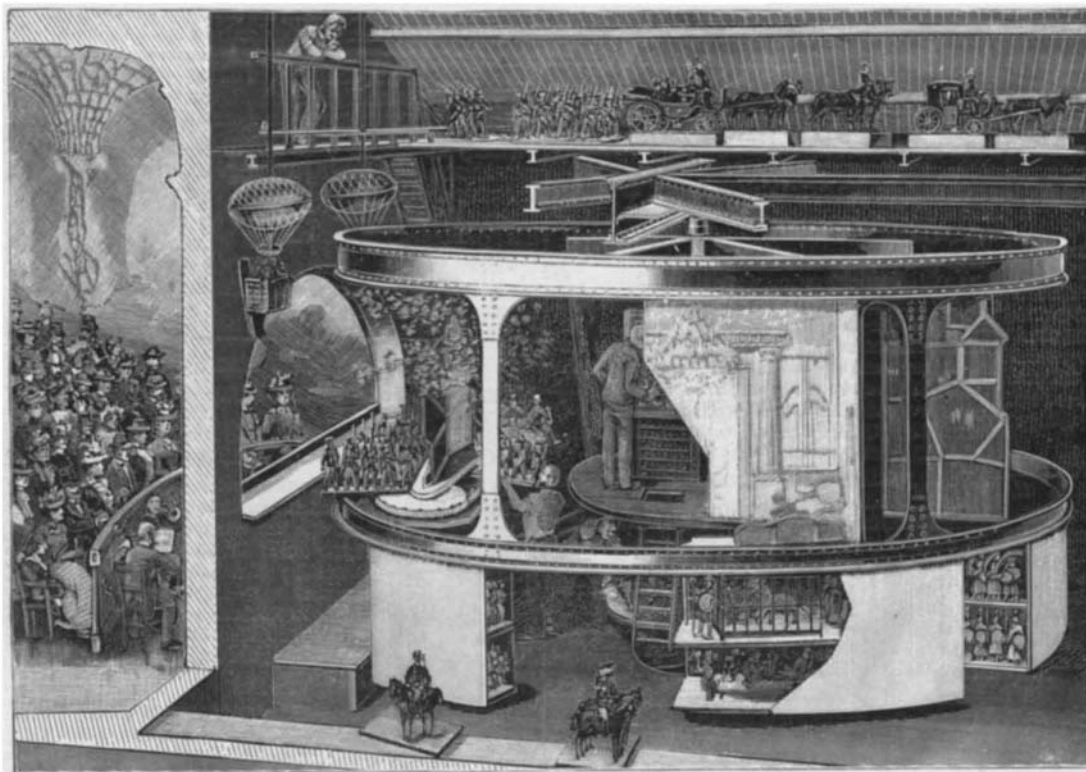


Fig. 1.—THE REVOLVING STAGE OF THE PUPPET THEATER, PARIS EXPOSITION.

view. Electric illumination enables the operator to obtain very happy effects.

A DISCOVERY by the French explorer, M. Paul Gaudin, in Asia Minor, is considered by French archaeologists to be an important link in the chain of evidence which unites Greek with Eastern culture, says The Architect. France has for a long time sent various investigators to that region, and among others M. Guillaume, the architect, who afterward had charge of the Louvre, distinguished himself by his researches among the ruins. Near the river Keikus, and not far from Stratonikeia, M. Gaudin has excavated an ancient necropolis. Among the objects found in the graves were a great many which in style and character corresponded with those found by Dr. Schliemann in the lowest strata at Hissarlik, and which were assumed to mark the existence of a city of a much earlier date than the Homeric Troy. The vessels, vases and clay figures were decorated in a similar manner, and the idols were long in form, with engraved lines to indicate the features. The connection between the cul-

ture of Paris" is illustrated by attractive engravings showing the exhibits in place. "Chemical and Technical Education in the United States" is concluded. "Modern System of Teaching Practical Inorganic Chemistry and Its Development" is by Mr. W. H. Perkin, Jr.

**November Building Edition.**

The November BUILDING EDITION is a particularly attractive number of this handsome periodical. "A Castle of Lauenstein" is accompanied by a plan and interesting engravings. "The New Providence Public Library" is accompanied by two illustrations. A full page is given up to the "German National Pavilion at the Paris Exposition." There are a number of interesting articles in the issue.

**The Current Supplement.**

The current SUPPLEMENT, No. 1297, has a number of articles of unusual interest. "On the Frontier Near Herat" gives an idea of this strange country. "Poisonous Snakes and Snake Poison" is concluded. "The Commercial Use of Birds" is an illustrated article. "Contemporary Electrical Science" gives ten interesting electrical notes. "The Delphi Collection at Paris" is illustrated by attractive engravings showing the exhibits in place. "Chemical and Technical Education in the United States" is concluded. "Modern System of Teaching Practical Inorganic Chemistry and Its Development" is by Mr. W. H. Perkin, Jr.

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