

THE TROJAN HORSE AT THE PARIS OPERA HOUSE.

The Opera House, of Paris, has just put upon the stage a work of Berlioz, one part of which, under the name of "The Trojans," was played a short time ago at the Opera-Comique, although there was nothing comical about it, but rather the contrary. The other part, which the Opera House is now giving, is called "The Taking of Troy." Now, every one knows that in this affair a wooden horse plays an important rôle. It is probable that Homer and Virgil and the other authors who have written upon this subject refer to a

feet in length by 8'2" in width, surrounded by a fence. The whole weighs 9,240 pounds. The legs form the base of a huge framework constituting the animal's body, and it is to this framework that are applied the belly, flanks, hindquarters, shoulders and head, which latter is 11'5" feet in height and weighs 1,320 pounds. The nostrils, forehead, and eyes are sculptured, while the rest is constructed of juxtaposed pieces of board, and forms a sort of inlaid work which is very well executed.

As the Opera House does not give the same play

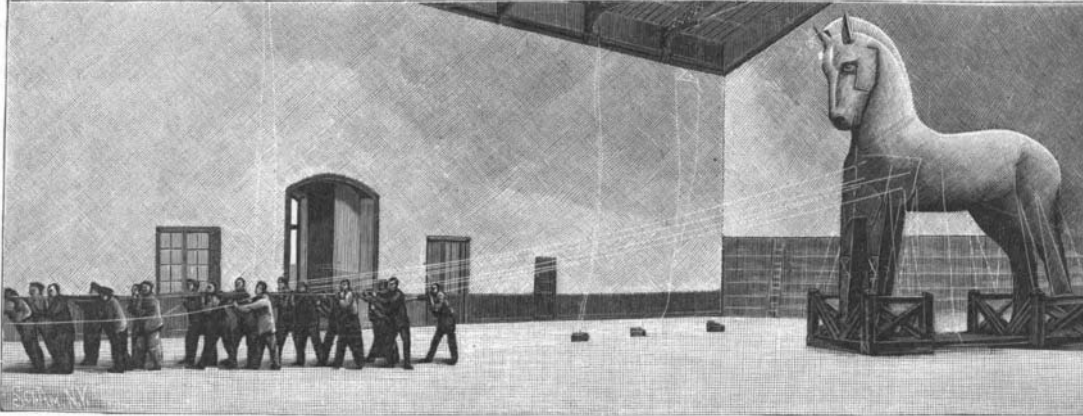


Fig. 1.—WORKMEN DRAWING THE TROJAN HORSE IN SHOP OF THE OPERA HOUSE.

more or less well founded tradition of a deed of war that made some stir in its time; but it seems scarcely credible that the Greeks would have been imprudent enough to inclose their bravest warriors in a frame having somewhat the appearance of a horse, or, on another hand, that the Trojans could have been simple enough to haul this affair into their city without perceiving that it was inhabited. Moreover, in view of the means that they had at their disposal, it would have taken them a long time to transport such a mass, even had they desired to do so. But, no matter; poets and musicians do not bother themselves with such details, and so we, in order to follow them, are obliged to reconstruct (for them alone, fortunately) the famous horse of Troy. It was M. Vallenot, the skillful head machinist of the Opera, to whom the business was intrusted.

Documents do not abound, since there are nothing but vague bas-reliefs that can be connected with this monument, and all that we can do is to refer to the Iliad and Æneid. Here we find, among other things, that the legs of the Trojan horse were formed of four trunks of young oaks, and that the body and head were of red fir. In order that the Opera horse may conform to this description, tints have been applied to it that imitate those of the woods employed in the original. The whole is very satisfactory, and it may well be conceded that it resembles the machine of war that the Greeks constructed in order to occupy their moments of leisure during the long years of the siege.

The Opera horse is about 28 feet in height (Fig. 2). It is made entirely of fir and rests upon a base 26'25"

every day, and as an accessory of such a size is somewhat cumbersome, it was necessary that it should be capable of being easily dismounted. To this effect, the head, neck, and back are provided with rings, through which, with the aid of ropes passing through pulleys above, the pieces are quickly let down to the floor. After this, the frame, which is assembled by bolts, is dismounted in less than an hour (Fig. 3).

However, when the plays produced during the week do not require a great display of stage setting, the horse is not dismounted, but merely stowed away. By means of two cables winding around a winch in the loft, the mass of 9,240 pounds is raised about two inches, and then, while some of the machinists quickly remove the inclined plane upon which it rests, others cause it to turn about 90 degrees. Then, at a signal, it is gently lowered upon another track provided with rails and at right angles with the first, and is pushed to the back of the stage, where it is no longer in the way.

The horse is not inhabitable, since the piece does not require the entrance and exit of Greek warriors before the audience; but it has to pass over the entire width of the stage—starting from the wings to left of the spectators and going to the right in order to enter the breach made in the walls of the city. This gives rise to a large procession, formed in part of Trojans, who drag the animal (Fig. 1). Now it would never have been possible, no matter how wide the stage, to make parade of this entire "team," and so it became necessary to employ an artifice. The ropes upon which the men who cross the stage pull are really attached to the horse, which is supposed to be still very far away, while in reality it was very near by and concealed by the side scenes. But the ropes are all of the same length because they are wound around drums that are installed in the framework (Fig. 3) and provided with brakes so that the ropes shall be very taut in order to make it appear that the Trojans are in fact drawing a heavy load. In reality, it is by a windlass placed under the stage that the machinists move the colossal animal at the proper moment. The base upon which the latter rests is, moreover, provided with rollers which run over rails fixed to the inclined plane representing the declivity to be ascended in order to reach the walls of the city. The effect of this huge mass crossing the stage is very imposing.

For the above particulars and the illustrations, we are indebted to La Nature.

The Evolution of the Bedroom and Bedstead.

Perhaps the last article which the late Lawson Tait contributed to medical literature was "Hygiene of the Bedroom and Bedstead," which appeared in several British and American journals. It treats of the evolution of the bedroom and of that now necessary article of furniture, the bedstead, in Great Britain. It tells us, says The Medical Record, that in the days of the cave dwellers and through the various stages of savagery and nomadic life, dwelling space was used for all purposes in common. It was not until the wandering hunter had, so to speak, settled down that he saw the advantage of putting aside a portion of his

dwelling for sleeping purposes. The Briton in the time of the Norman era had a very fair notion of what constitutes a comfortable bedroom and bedstead, although his castle might be outwardly grim and forbidding. The walls of the castle were thick and solid, thus securing a fair uniformity of temperature, while the downdrafts of cold air were modified by hangings of tapestry. For their bedsteads there was no need of hangings. The Saxon farmer, however, had to live under very different conditions. His house was of wood, and carpentry at that time was at very low ebb, so that the doors and windows were ill-fitting, and drafts were the rule. This resulted in the evolution of that abomination of abominations, the four-poster bed; and as Dr. Tait preferred to put it, "A small apartment was constructed inside the bedroom in the shape of a four-poster hung round with curtains, into which a whole family must have crowded, possibly with the addition of occasional visitors." The conservative Briton clung to his time-honored four-poster until the fifties, when occurred the dawn of domestic sanitation. The first step in the right direction was the introduction of the metallic bedstead.

American Inventions Abroad.

The fact that the United States is the most profitable field for the exploitation of useful inventions has taken a firm hold upon the inventive minds of other countries, says Consul Albion W. Tourgée, of Bordeaux, France. The first thing a man does who has a new idea of any sort is to seek to have it patented in the United States. This is specially true of inventions pertaining to railroad appliances. French inventions are usually defective in the mechanical character of the means by which the end sought to be accomplished is attained. This is, no doubt, due to the fact that so small a portion of the population have any practical mechanical knowledge. Almost every man

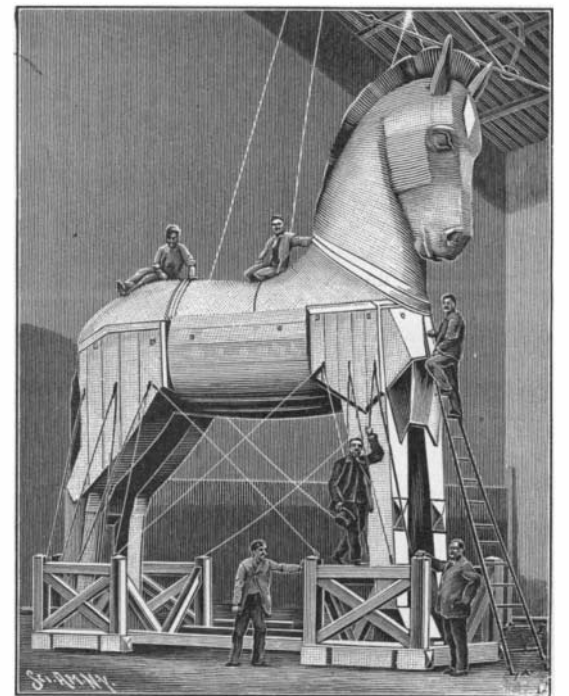


Fig. 2.—THE HORSE COMPLETE.

in the United States knows the use of tools, and very many who have no manual occupation are fairly skilled workers, and those who have inventive genius are not ashamed to devote their leisure time to the acquirement of the technical skill necessary to prepare their working models and perfect their inventions. In France, on the contrary, such knowledge is considered derogatory to anyone in the higher walk of life. A clerk will not close a shutter nor dust off the top of the desk on which he works, since that is the business of an "ouvrier"; nor will a man who moves in good society permit himself to be seen carrying a package of any sort along the street. One result of this exclusive use of tools by laborers is that French inventions usually have to an American a certain sense of awkwardness in their mechanical application. The idea may be a good one, but there is very seldom any of the handiness which one finds in an American invention. Mr. Tourgée cites a French invention which was brought to him. It does not seem to us to be particularly new, and he says concerning it that whether the system is of practical importance or not, it serves to show how the United States is regarded by the inventors of Europe, who make haste to secure protection under our law, so as to take advantage of the wonderful market it opens to really meritorious devices.

THERE is a total enrollment of about 3,000 students in Cornell University, consequently the class rooms, lecture rooms, and laboratories are overcrowded. This shows that Cornell is enjoying well-deserved prosperity. Extensive additions are contemplated. There are now 225,000 volumes and 36,000 pamphlets in the library of the university.

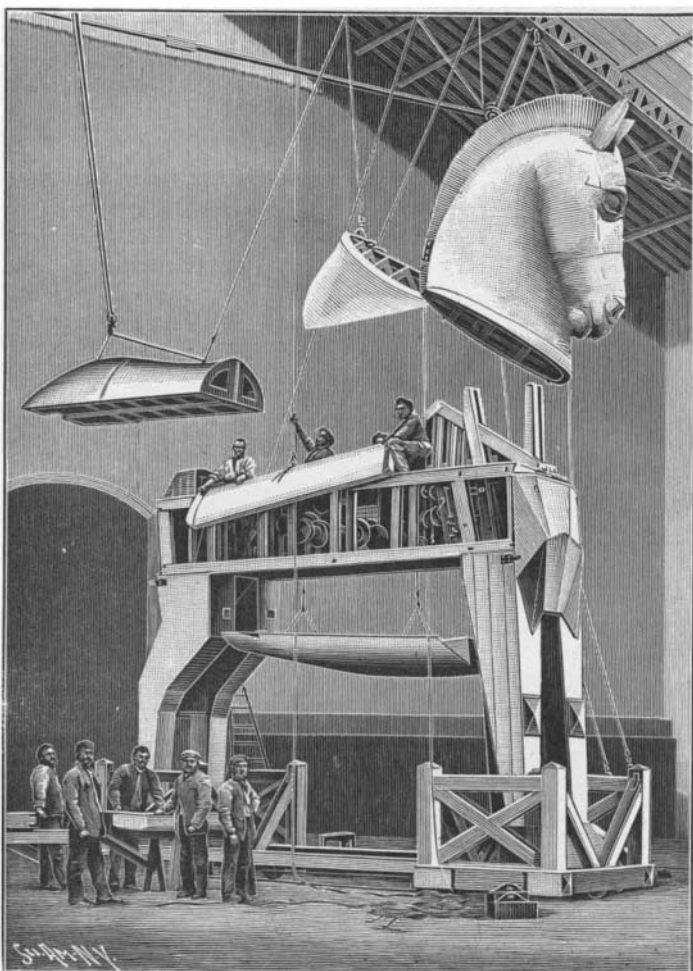


Fig. 3.—DISMOUNTING THE HORSE OF TROY.