

THE NEW HUNT BICYCLE SADDLES.

The subject of bicycle saddles is an important one, as upon it depends not only the safety but, to a large degree, the comfort of the rider. Nothing tends to make the cyclist more tired than a saddle which is ill adjusted and ill fitted. A few years ago the bicycle saddle was the last thing thought of, but at length the ingenuity of the manufacturers resulted in the production of saddles based on anatomical principles, and their attention was then devoted to the elaboration of the details which make the saddles of to-day so convenient and comfortable. Among saddles, the "Hunt" saddle, made by the Hunt Manufacturing Company, of Westboro, Mass., has an enviable reputation. Our engravings represent two of the many types of saddles which this company have now ready for the bicycle trade. Our first illustration shows a saddle known as style X-50, which is especially intended for a large class of riders who are looking for a saddle that is entirely without a pommel. This is a padded pattern with leather strand supports. The weight of the saddle is 26 ounces; the length is 7½ inches; the width is 9 inches. The padded saddles of this company differ from those of other saddle makers in that, instead of being supported by a rigid base, there is the same laced framework found in their hygienic saddles, which enjoy a well deserved reputation, so that in their padded saddles the framework yields as well as the pad under the rider's weight, and there is no liability of the pads becoming hardened by constant pressure of the rider's body, as is inevitable with a rigid support.

Our second illustration shows what is known as the "Sovereign" saddle. It is specially intended for the class of riders who desire a saddle having no pommel and yet require some assistance from the saddle in balancing the wheel. To meet this requirement, the "Sovereign," which is otherwise known as the "Semipommelless" saddle, has been devised. It is provided with two pads of generous thickness and well separated for anatomical reasons. The spring underneath aids the curled hair of the pads in giving a cushioned effect, and its riding qualities are excellent. It also presents a fine appearance, as the metal parts are all finely nickel plated, giving it a high finish. The ordinary form of the elongated pad at the front causes great discomfort, because the points of the pad are hard and unyielding, partly because of the shape and partly because there is no spring in front. In the "Sovereign" the makers have hit upon a happy combination of spring and pad, which will unquestionably solve many of the difficulties experienced in riding padded saddles. The outline of the pad is slightly triangular, with well rounded corners, so that the front of the pad, instead of projecting forward and forming a ridge, slopes gently toward the center, causing no obstruction to the movement of the rider's limbs. This feature removes the physician's final objection to padded saddles, so there is little wonder that this type of saddle has consequently received the unqualified indorsement of the medical fraternity. Our engraving shows the sensitive coiled spring in front, which accomplishes two objects: It affords instant relief to the rider from sudden jolts and at the same time is adequate for balancing the wheel. Thus a saddle is obtained with ample spring at the rear, doing away with the objection to a pommel or elongated pads, and yet furnishing an opportunity to easily balance the wheel. The improvement in their S spring for 1898 is shown in the forward coil, where the bolt and nut formerly used have been superseded by a change in the form of both springs, so that the coil is self-secured. This spring is furnished on no less than twenty-two different patterns made by this

company. Another interesting feature of this saddle is the clever post clamp, which is operated by a single screw and which is absolutely positive and very simple. It brings the saddle close down upon the frame, which is a very desirable feature.

A MEXICAN STATUE OF TERRA COTTA.

No one would suppose that the ancient Mexican civilization was far enough advanced to produce statues of terra cotta of natural size; and yet one has recently been found by an Indian in digging in a cavern near



NEW TYPES OF BICYCLE SADDLES.

the city of Tezcoco. This statue, which is probably that of a warrior, is 5¼ feet in height and 18 inches in width between the shoulders. The mouth is wide open, as if the individual were in the act of singing or shouting. The hands must have held some such object as a weapon or musical instrument, but, since the fingers are broken off, all conjectures as to this are rendered impossible. The statue was made in three different sections. The head, which is in a single piece, was attached to the trunk by a tube. The second section comprises the central part of the body, and the third the legs. These sections were evidently moulded separately, but no trace of the moulds that were used has been found. The naked parts were painted dark red. Their polish recalls that of the vases that are found in the valley of Mexico. The clothing, on the contrary, bears no trace of color, except at the points where they have been blackened by smoke in the process of baking. This clothing consists of a blouse ("uipilli") with very short sleeves, attached at the

back. Around the loins are distinguished the remains of a cotton girdle ("maxlatl"). The legs are covered with long leggings extending below the knee. The footgear consists of sandals held in place by two straps, one of which passes between the first and second toes and the other between the third and fourth.

The head exhibits the curious artificial flattening of the frontal and occipital bones so frequent in Central America, and which some Indian tribes still practice in our day.

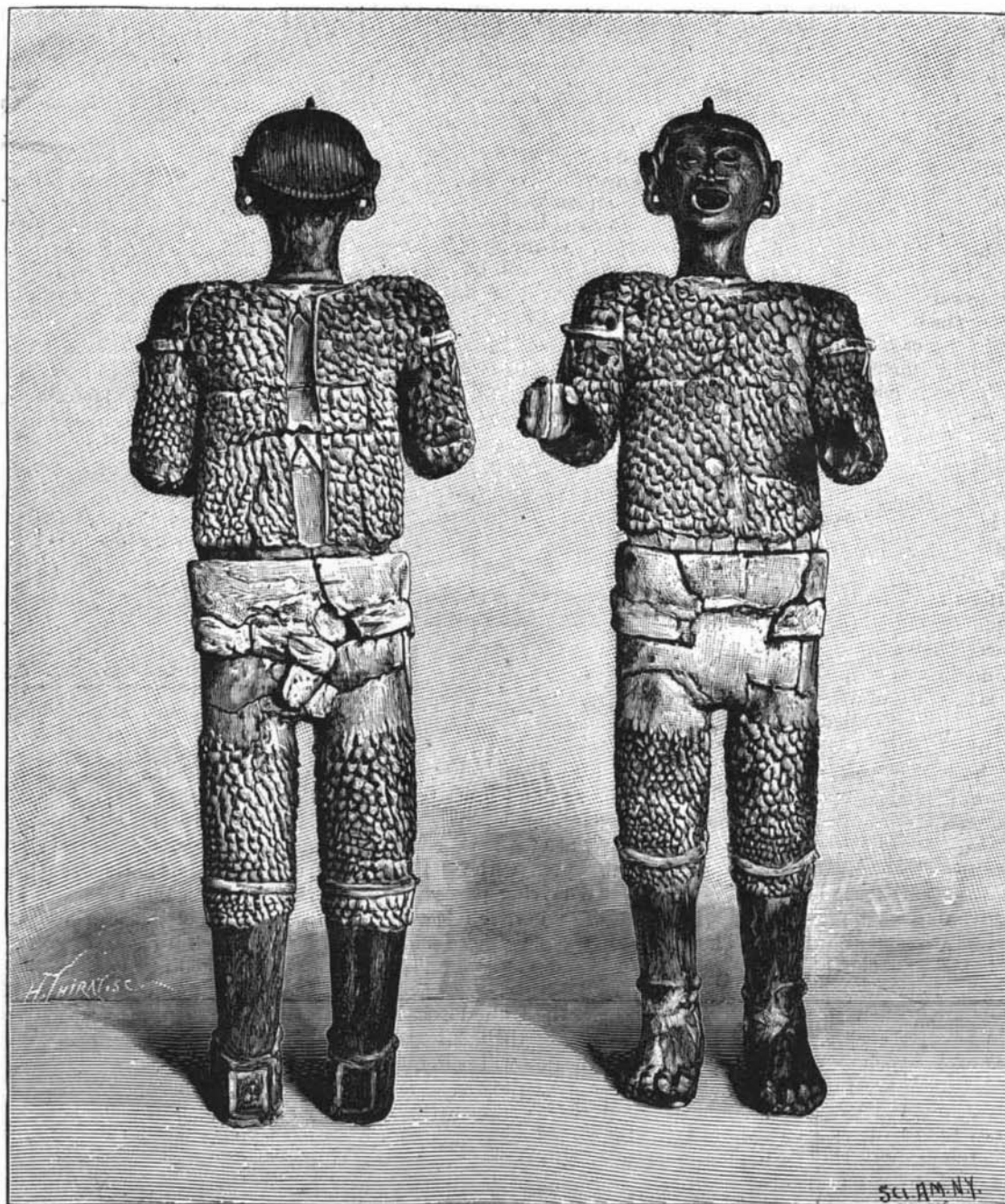
The ears are pierced, but the rings, which were probably of copper, have disappeared. The same is the case with the pendant that was attached to the nose, and which was an ornament worn exclusively by chiefs and warriors. The hypothesis that the statue was that of a chief or warrior is strengthened by the cotton armor, which Torquemada describes under the name of "icheauhuitl." This offered so efficacious a protection, says this writer, that the Spaniards hastened to adopt it in order to protect themselves against the arrows and the formidable saber ("maquahuitl") of the Mexicans. This weapon consisted of a strip of wood in which were inserted numerous fragments of obsidian, and which the Mexicans used with great dexterity.

The arrangement of the hair is such as to give the idea of a wig. There are apertures in the arms, shoulders and breast for closing the cracks.

Although the origin of this terra cotta statue is unknown, it is certain that it antedates the Spanish conquest. For the illustrations and the above details we are indebted to La Nature.

For Facilitating Examination of Inventions.

The Cycle Age voices the sentiments the SCIENTIFIC AMERICAN has presented, as being of the greatest importance to inventors. Factory superintendents and inventors, says the editor, will be interested to learn that the Platt bill for revising and perfecting the classification of letters patent and printed publications in the Patent Office has been reported favorably from the Senate committee on patents, and there is every prospect that it will speedily become a law. Our patent system proceeds upon the idea that when an application for a patent is made, it is to be determined in the Patent Office, before letters patent are issued, that the invention is new and useful and made by the applicant. This involves an examination of every application for a patent and search in the whole field of domestic and foreign patents already granted, and in all published technical works to discover whether the invention has been anticipated. In other words, whether, in the language of the constitution, it is "new and useful." The wonderful increase of inventions, of patents at home and abroad, has greatly enlarged the field of search, and yet, if a patent is to be what under our law it purports to be, of real value to the inventor and prima facie evidence of title to his invention, the search and examination must be thorough and complete. The increase in the field of search is enormous. Each year, since 1883, more than 20,000 patents have been issued by the United States. Last year the number was 23,794. The number of foreign patents issued each year is something over 60,000. The pressing need now is for a more perfect arrangement of the patents and applications and references of all kinds in the Patent Office. When it is remembered that the expenses of the Patent Office are not only paid by inventors, but that a surplus is each year turned into the treasury of the United States, forming a special, idle fund of over five million dollars, it would seem that there could be no question of the duty of Congress to provide sufficient force for the prompt transaction of the business.



A MEXICAN TERRA COTTA STATUE.