JUNE 16, 1900.

A CURIOUS HISTORIC WEAPON. BY ROBERT WILSON, D.D.

In the year of grace 1691, the Lords Proprietors of Carolina conferred upon Thomas Smith, Esq., the patent of Provincial Nobility, which made him hereditary Landgrave of Carolina, and proprietor of four baronies, consisting each of 12,000 acres of virgin land. His eldest son, heir to his father's title and most of his acres, was the owner of the curious and interesting historic weapon which is the subject of this sketch. In view of the fact that this gentleman possessed an estate of some 60,000 acres, and a family of no less than twenty sons and daughters, it is little wonder that his will should be one of the most voluminous of the ancient documents that are of record in the probate archives of Charles Town. The following is the only item in the will which concerns this paper ; " I give and bequeath unto my son Henry Smith my large silver Tankard and my double barrill Pistols, and such a gun as he shall chuse out of my Gunns, and my silver hilted Sword and two silver Spoons."

One of these pistols is still preserved by a descendant, and is the remarkable weapon here figured, its special interest consisting in the fact that it is a *revolver*, and one of the few existing examples of the application of the principle to fire-arms operated by flint and steel. Although it is well known that revolving weapons were invented certainly as early as the middle of the fifteenth century, there is no evidence of such fire-arms' having ever been in general use.

The revolver, as will be seen from the cut, is a handsome, well-made and not unwieldly weapon, some sixteen inches long, smooth-bored, and carrying a halfounce ball. A reference to the cuts will readily explain its working. The barrels are placed vertically, being bound firmly together by two grooves of mahogany presenting a V-shaped section, giving the possible maximum of lightness, and strongly clamped at the base by a brass-faced steel breech-plate, fitting closely to a similar plate on the stock. Between the barrels on one side the wood is grooved and fitted with a springclamped steel scabbard for holding the ram-rod secure. Each barrel is provided with the ordinary priming-pan and spring steel-faced cover for the impact of the flint. These springs are strong enough to-day to secure the priming from falling out while the barrel is reversed, and indeed, after nearly two centuries of disuse, the pistol is in perfect working order, and might be loaded and fired as readily as when it left the maker's hands, the original flint being still in place and striking its shower of sparks at the touch of the trigger. There are no sights, as these would be unnecessary at the close quarter range for which the pistol was intended.

The stock is of mahogany, simply carved, but richly

mounted with silver filigree work, the heavy silver cap on the butt bearing the landgrave's crest, a greyhound se jant gu. collared and chained or. The lock is of the best workmanship, the hammerspring still strong and reliable. The revolving mechanism is of the simplest character. A short cylinder or pin projects from the center of the breech-plate, passing through the corresponding plate on the front of the stock, the two plates fitting with perfect accuracy. The upper barrel having been fired by a light touch of the trigger, the weapon is again cocked, the forefinger pressed on the movable spur on the outside of the trigger-guard, releasing a spring clamp, and the barrels, grasped by the left hand, are quickly revolved, bringing the under pan into position before the hammer, where it snaps firmly into place. All this may be done in a few seconds, the whole device being a wonderful improvement on the awkward broad-breeched arrangement of the ordinary flint-locked horizontal double-barrel. One cut repre-

Scientific American.

istics of "the little Englishman," as he was familiarly called, to make it certain that in his case all these would be of the best.

These pistols have been a cherished heirloom in the family—or rather in one of its innumerable branches—for more than a hundred and fifty years, and hung together on the walls of Yeamans Hall until the close



View Showing Barrels Half Revolved.



Barrels in the Firing Position. COLONIAL FLINT-AND-STEEL REVOLVER. AGE, 175 TO 200 YEARS.

of the war between the States, when they formed part of the loot carried off by a guerrilla band. The weapon shown in our engravings was recovered, but the other has never been heard of since that day.

ETRUSCAN TOMBS AT ORVIETO.

The Etruscan remains in Italy vie in interest with the later Roman remains. In many cases they are more interesting, for they are hidden away in the small cities and towns, and are not seen by the tourist unless special journeys are made to obtain a comprehensive view of the subject. Orvieto with its superb cathedral lies on the northeast of, and on the extreme Orvieto was Etruscan was proved only within this century by the discovery of the tombs in the immediate neighborhood.

In 1874 the most important find of all was made; this was the Necropolis at the foot of the cliffs beneath the city to the north. This is probably the most attractive collection of tombs to be found anywhere in Etruria. They are not hollowed out in the rocks as is the case with most Etruscan burial sites, but they are constructed of massive masonry and arranged side by side and back by back, exactly like houses in a town, forming insulæ, or blocks of tombs instead of residences; each tomb having its doorway closed by a slab of stone and the name of its occupant engraved in large Etruscan characters on its lintel. These blocks of tombs are separated by streets crossing each other at right angles, so we have here truly a "city of the dead." According to Dennis, the masonry is of local red tufa, cut in large rectangular masses, and always laid without cement. The tombs are 11 or 12 feet deep. 6 or 7 feet wide and 9 feet high, constructed of very neat masonry. For the last three courses the walls are upright, but above that the courses project on either side and gradually converge until they meet in the center of a flat course forming a primitive sort of vault. The faces of the blocks within the tomb are not hewn to a curve to resemble a Gothic arch, as in the Regulini-Galassi tomb at Cervetri, but the angles of the projecting blocks are simply beveled off. These tombs are considered by the archæologists to date from before the invention of the arch of Etruria and are therefore, in all probability, earlier than the foundation of Rome. While some of them are quite empty, others contain a rude bench formed of slabs on which the corpse was laid. Each sepulcher can be removed without disturbing its neighbors. Each terminates above in a high wall of slabs, which face it in, and inclose the roof. Across this inclosure stretches the masonry which roofs in the tomb, in a double flight of stone steps, meeting in the middle in a narrow ridge which tops the whole. On this ridge or by its side stood a stela or cippus of stone, shaped in general like a pointed cone or the finial of a cupola. Some of them bore inscriptions, and it was observed that when this was the case, the epitaph over the doorway was always wanting. According to Dennis, whose extensive researches upon Etruria are of the greatest importance, the doors of the tombs are tall, narrow and without architectural decoration, not having even the Egyptian or Doric form so common in other Etruscan cemeteries. The inscriptions are very peculiar, not so much in the form of the characters as in the epitaphs themselves, which are written without the usual division into words. They all have the peculiarity of commencing with the word "mi." Thus in the street shown in our engraving, which has

been sadly overgrown since its discovery, there are four epitaphs: "Minamarkesteethelies," "Milauchusieslatinies," "Minamarkestriasnas," "Milarthiasrupinas."

The Current Supplement.

The current SUPPLEMENT, No. 1276, has many articles of unusual interest. " The Power Generating Plant at the Paris Exposition" is elaborately illustrated. "An Outline of the Development of American Locomotives" is illustrated by five engravings, made from large drawings which were made for the Paris Exposition. " Recent Developments in Nernst Lamps" describes the commercial forms of lamps which have been used. "On Krypton" is a valuable chemical article. "The Tapir" forms the subject of a full-page engraving. "Means of Defense in Ani-





ETRUSCAN TOMBS AT ORVIETO, ITALY.

sents the pistol ready for use, and the other shows the barrels half revolved. The maker's name, "E. Tilley," may still be deciphered on the lock-plate, but there is no date and no hall-mark on the silver work. The weapon, however, is certainly one hundred and seventyfive years old and more, probably two hundred, for the colonial nobleman who owned it had need of its protection before the eighteenth century began. It may well have been a part of his epuipment as a captain in the Provincial militia in 1696, for gentlemen officers in those days provided their own mounts, arms and uniforms, and enough is known of the personal characterverge of the great Etruscan plain. The situation is one of the most commanding of all the hill towns of Italy, and it is little wonder that the old Etruscans and the mediæval Italians had the same views about its being an ideal position for the building of a town and its fortress. The antiquity of Orvieto is very great and its history can be traced back several hundred years before Christ. Unlike most Etruscan sites, Orvieto does not retain a vestige of its ancient wall, which forms so marked a feature of all important Etruscan towns, the great blocks of masonry being put together without mortar or cement of any kind. That mals, II.," by Philip Calvert, Ph.D., of the University of Pennsylvania, appears in this issue. "The Protection of the Young" is dealt with in this section. The article is of great interest and importance. "The Wind Cave of South

Dakota" is by E. O. Hovey. "The Political Organization of the Filipinos" is by R. L. Packard.

Contents. (Illustrated articles are marked with an asterisk.)			
	Contents.		
	(Illustrated articles are marked with an asterisk.)		
Armor plate fasco 370 Inventions recently patented	Armor plate flasco	Inventions, index of	