

t-Pistoi Smeld of Henry VII (Obverse and Reverse).
--Skull Cap, Late Seventeenth Century.
--Sapper's Helmet, Middle of Nineteenth Century.
--Secrete, Late Seventeenth Century.
--Steel Skull Cap, 1915.
--Gorget, Early Eighteenth Century.
--Chapel de Fer, Fifteenth and Sixteenth Century.
--Chapel de Fer, Middle of Seventeenth Century. ARSHAL MAURICE of Saxe, writing

of Sir Philip Sidney from a spent bullet as a rea-

son for adhering to the old fashions in military

equipment. As early as 1569 armor was proved

by musket or pistol shot, and in 1590 Sir Henry

Lee, master of the armories, arranged a trial to determine the respective merits of Shropshire

fron and "Hungere" or Innsbruck metal, with re-

In the "Verney Memoirs," under the date of

1667, we find that one Richard Hals proved his

armor with "as much powder as will cover the

bullet in the palm of the hand." It was this

proof by musket shot, combined with the gradual

decadence of the craft of the armorer, who had

by this time lost the art of tempering his metal,

which produced the graceless and cumbersome

equipment of the seventeenth century-proof

against firearms, it is true, but so heavy and inconvenient as to be entirely unsuited for extend-

ed expeditions, and for the new school of military

tactics. The last relic of the complete suit of

plate was the small crescent-shaped gorget worn

by infantry officers up to about the year 1830.

Once this had been a practical protection to the

throat, but latterly it shrank to a small plaque

of brass, little larger than a regimental badge.

Quitted armor, brigandines, and chain mail were

occasionally used after field armor had been

given up; but these were solely used against the

attack of the assassin. Napoleon III is said to

have worn a defense of mail; the cavalry of the

Confederate army in the American Civil war fa-

vored a vest lined with plates of steel; and Ned

Kelly, the bushranger of our own day, wore a

helmet and culrass of bulletproof boiler plate.

The thin strips of steel used in the brigandine

were only of value against sword cuts, and it was

for this purpose that they were employe' in the

"secretes" or hat linings, of which there are still

large numbers in the Tower, and in the hat of

Bradshaw the regicide, in the Ashmolean mu-

seum, Oxford. The modern French and German

defenses of this nature would seem to be quite

useless against long-range rifles. For many years

inventors have brought forward contrivances,

claimed to be bulletproof, which provided thrill-

ing turns on the music hall stage, but none ever

dared to face the service rifle wearing their in-

vention. As has been repeatedly pointed out in

recent articles on this subject, the only value of

armor at the present day is as a protection from

glancing or spent bullets. It has no value what-

ever against the point-blank impact of a projec-

sults disastrous to the homemade product.

tile, for, even if the defense is not penetrated, in the middle of the eighteenth centhe resultant shock is as serious as a bullet epiored the disuse of deund. It is therefore this glancing surface which should be studied if armour is to have any fensive armor as being the cause of large number of casualties in batplace in modern warfare, and metal of a high tle. He very truly observed that temper and light in weight should be employed. It is unthinkable that such defenses will ever be most of the wounds caused by officially recognized, for, if issued on a large spent bullets, sword, lance, or pike scale, they would greatly impede the mobility of thrusts would be minimized, if not troops already carrying more dead weight than prevented, by the use of some kind of metal prodid the soldier of the sixteenth century in his tection. He does not suggest that its weight and suit of half-armor. If such contrivances are purunwieldiness was any drawback, for he recomchased privately an exhaustive test should be inmends a cuirass made of buff leather, re-enforced sisted upon, and proof should be recorded by with metal strips, weighing in all 30 pounds, as some responsible body, as it was in the days of a very useful equipment, and he gives as his opin-Charles I, when the Armorers company of Lonion that it was only the cost of armor which don were ordered to carry out such tests and brought about its disuse. From the middle of the stamp all armor that satisfied the conditions sixteenth century there had been much discuswith their mark. If these defenses are caresion as to the practical value of armor, and Sir lessly made of indifferent material they will as-John Smythe, writing in 1590, cites the death suredly be far more of a danger than a protec-

> It is imposible to criticize the modern productions without seeing them in actual use in the trenches, but it would seem that the pistol shield with crossed bars is in direct opposition to the theory that the "glancing surface" is of importance, for here, wherever the bullet strikes, it will deliver the full force of its blow and will not fly off at a tangent as it would from Henry VIII's pistol shield which is preserved in the Tower. The plain skull-cap seems to fulfill the required conditions, except that it should be provided with a brim curving outward, like the chapel de fer of the sixteenth century. The French helmet appears to provide some lodgments for the bullet in the straight brim and high comb, but again it should be noted that it is impossible to criticize practically until the defense is seen in action.

> Besides the ordinary body armor of the late seventeenth century in the Tower collection there are a few interesting specimens of slege implements which were the precursors of modern contrivances. The chevaux de frise of the days of Wellington are a series of sergeants' pieces joined by horizontal rods, and so arranged that they can be stretched across a road or the breach in a wall as a protection against cavalry-an anticipation of the present barbed wire entanglement. The sappers' mantels of leather and iron have continued in use from the time of the Romans up to today, and the weighty trappings that were used in the middle of the seventeenth century show that even then armor was seriously used in the trench work. Several of the eighteenth century muskets in the Tower of London have brass cups fixed to the barrel or butt from which grenades were thrown, a necessary precaution when the fuse used was the slow match. Step by step we can trace the evolution of military invention, and it is peculiarly interesting to find that today, in the light of all our scientific knowledge and experience, we are suddenly forced back to make use of appliances of four hundred years ago which we had but recently stigmatized as relics of barbarism.

The facts show that from the stone age onward armor never became extinct. It has always been worn. At the present day, to be sure, it appears less for service than as a uniform of the bodyguard of royalty. And you recall that corselet and steel headpiece are still seen in St. James' park, or in Potsdam, or indeed in Republican



CHEVAUX DE FRISE, 18TH AND 19TH CENTURIES.

the emperor still survives. But even these relics of ancient armor are known to be serviceable. saving many a guardsman from wounds of saber or lance or even high velocity projectiles when striking at an angle.

It is true that the disuse of armor followed the invention of better grades of powder, but it must. nevertheless, be remembered that, during the time when armor was worn oftenest in Europe, gun powder was in common use. During the latter half of the sixteenth century not only cannon but guns and pistols were seen everywhere. Nevertheless armor continued to be used. It was in many cases the matter of expense which limited the wearing of armor; for in those days the cost of armor was high, very high. Clearly, therefore, a man would be less apt to wear a really good harness-one which might have cost the equivalent of ten thousand dollars in the present purchasing power of money-when the protection it gave him was not complete; he preferred then to wear common heavy armor, and in the end to neglect wearing armor altogether.

When he found that his enemy kept away from him, the range of firearms increased. Later on he "took a chance" of receiving a wound.

It was only during the Thirty Years war, say before 1650, that cheap armor of very great weight-almost intolerable-came into general use. Then, too, one must remember that there was for a long time a feeling that armor was not heroic. Even in earlier centuries many a distinguished officer thought it chivalrous to appear in battle only partly armed. Thus we read of his torical personages going into battle with helmet visor raised, and of such a knight errant as Sir Philip Sydney fighting bareheaded. The feeling that it is discreditable to wear armor is strong even at the present day.

The reasoning runs. It is cowardly to take an unfair advantage of an adversary. Surely a man in a duel would not wear a shirt of mail; so why should be be armored in battle, which is only a duel on a larger scale?

Shields should be and are already in constant use. It may be recalled that the Japanese redeveloped this system effectively in their war with Russia, especially in the capture of "Two Hundred and Three Meter hill," where they moved along in front of the advancing infantrymen. In earlier times the Japanese sometimes wore a flat shield slung upon the breast, but always as a defense against shot.

When one considers the value to the community of even one soldier, surely no nation should afford not to protect him as best it can.

The descendants of an individual may amount to thousands in the course of a couple of centuries. so one can figure out what the human losses to the countries now at war must represent in the future. If armor will save even a few hundreds of men it will certainly pay as a national investment to use it. The time will soon come when governmental commissions will take up this matter effectively.



FARM LIFE HIS IDEAL



"I wish I had had sense enough to stay on a Kansas farm."

Instead of which he went into the army, gained fame and promotion by spectacular deeds in the Philippines, took Vera Cruz away from the Mexicans temporarily and made it a clean and habitable city, and now commands the United States troops that are trying to maintain order along the Rio Grande. For the man who wished he had stayed on a Kansas farm was Mal. Gen. Fred Funston.

'I was raised on a farm, and I like the feel of the soil. It's good to hoe potatoes and radishes and plow corn," he added.

"You got away from it about as quickly as a farmboy ever did," his companion suggested.

"Yes, and I was a rattle-pated youngster, with mighty little gumption, too," he returned.

General Funston consistently refuses to be interviewed concerning either the European war or the troubles in Mexico.

"I talked too much when I came back from the Philippines once," he explained to a questioner. "Now the sphinx has nothing on me. The less an army officer talks the better, anyway."

LORD BERTIE OF THAME

Back in 1903, when Balfour was the British prime minister, the British embassy at Rome fell vacant. Mr. Balfour was at a loss to name the right man to fill it, so he consulted Sir Francis Bertie, the permanent undersecretary of state.

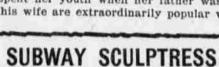
What sort of a man would you

put in?" asked Balfour. Sir Francis sketched the ideal ambassador. He must be this and that, he explained; and ended by making a most incisive picture of the person required for Rome. "I see, I see," said the other, pondering. "Then, Sir Francis, I must ask you to accept the post," he added, with a smile capable of dissolving the most obstinate permanency.

Two years later Sir Francis was ransferred to the Paris embassy, and he still holds the position there. In all these years he has performed his diplomatic and social duties so capably and skillfully that in his seventy-first year reward has come to him from the

erown. On the king's birthday he was raised to the peerage as a baron of the United Kingdom. His title, Baron Bertle of Thame, was a wise selection, for all the Berties are descended from the first and only Viscount Thame, who was a grandson of Sir Henry Norris, ambassador to France in the sixteenth century.

Lord Bertie is a son of the sixth earl of Abingdon. Lady Bertie, a daughter of Earl Cowley, belongs to the diplomatic world by birth and traing as well as by marriage, and she belongs especially to Paris, for it was in that city that she spent her youth when her father was ambassador. Both the new baron and his wife are extraordinarily popular with the French.





Boston always has been proud of its subway, and now it boasts of its wonderful subway sculptress, Miss Bessie Paeff. She was awarded the first prize for sculpture and modeling in the Boston School of the Museum of Fine Arts for this year's work, and great things are predicted of her by her teachers.

Any day and every day Bessie Paeff may be found at the south end of the Park street subway station. She is the ticket seller there. She intends to remain there, too, until she has earned enough money to go to Paris and study under Rodin.

As a child Bessie gave evidence of having the artistic temperament. She was graduated from high school and entered an advanced class at the Boston School of the Museum of Fine Arts. Thereafter Bessie Paeff allowed nothing to interfere with her study of art-nothing but the selling of tickets in Park street subway station. And

even here her art work is not neglected. Neither is her work in the subway office. She takes pleasure in selling tickets, because it is the source from which she has derived her success thus far as a sculptress.

HE QUITS DIPLOMACY

Nelson O'Shaughnessy, former charge d'affaires of the United States embassy in Mexico City, is no longer on Uncle Sam's pay roll. He has been separated automatically by the provision of a law which prohibits a longer period than 60 days of leave with pay. Privately, it is admitted at state department that Mr. O'Shaughnessy is not expected to re-

enter active diplomatic service. Mr. O'Shaughnessy acted as charge for the United States embassy in Mexico City from the time the last ambassador, Henry Lane Wilson, was recalled to Washington, until our diplo-

matic affairs were turned over to the Brazilian mission when United States troops took Vera Cruz. O'Shaughnessy's work during that period was most trying, in view of the spenly hostile attitude of the United States government toward President Huerta. Despite this situation, it is said that Mr. O'Shaughnessy was able to protect his nationals more effectively than they have ever been protected

before or since. Following his withdrawal from Mexico O'Shaughnessy was offered a secretaryship at his old post in Vienna. This he accepted and held for some months, but last summer he was recalled and came on leave to this country.

