CURIOUS WAR WEAPONS

GROTESQUE MILITARY ENGINES OF THE MIDDLE AGES.

Machine to Break the Enemy's Ranks—Dragon for Attacking Towns.

The ingenuity of man has been taxed to the utmost to contrive new and more deadly means of killing and wounding his fellow men, and science has now brought our modern weapons to such perfection that it seems almost impossible to imagine any advance in their effectiveness. If we except the cold steel—which still has its uses, if we are to judge by the recent war in the East—there are but three classes of offensive weapons; the gun and its projectiles, the rifle and the mine or torpedo. In the process of their evolution from the stone and club of our prehistoric ancestors an enormous number of contrivances have been invented by the fertile brains of soldiers, mechanics and scientists.

Some of these, such as the "hand gonne," Edward III.'s "crakeys of war"—the cannon he took against the Scots—and the engineer Giannibelli's "devil ships of Antwerp," may be regarded, writes Lieut.-Col. C. Field in the Scientific American, as being the direct ancestors of the rifle, gun and torpedo of to-day. But there have been hosts of others, which have either become entirely obsolete after a very short reign, have never "caught on," or, in very many cases, have never had any actual existence outside the plans and ideas of their sanguine inventors.

Many of these warlike appliances, especially those belonging to the Middle Ages, are of the most grotesque description. As at no distant date the making of hideous grimaces to strike terror into the heart of an enemy was cultivated as a branch of the military art by the troops of the Celestial Empire, so in mediæval times the grotesque seems to have been considered at least as much a desideratum as the practical by the inventors of offensive and defensive weapons. So we have such extraordinary contrivances as a "machine to break the ranks of an enemy" and

OTHER DRAGONLIKE EDIFICES.

How the former—which appears to be a kind of mediæval motor car—got over the ground and how it brought its formidable array of spikes to bear upon those who had the hardihood to oppose its progress, must be left to the imagination. The other machine is merely a grotesque edition of the movable towers that played such an important part in the sieges of ancient and mediæval cities.

Ancient warriors had a great penchant for naming their various warlike engines and machines after animals, real or imaginary. Thus we have the Roman "musculus," or "little mouse," a machine for undermining the walls of a besieged city; the battering ram, the sow, the scorpion for discharging big arrows from a powerful bow, the onager for hurling stones. The onager, according to tradition, was an animal that had a pleasant trick of kicking stones with great violence at its pursuers. Again, the Roman warships were equipped with a spiked gangway known as a "corvus," or "crow," which on being let fall upon the enemy's ship grappled her and formed a bridge for boarders.

Mediæval soldiers made frequent use of the "wolf" in the defence of castles and towns. This was a species of huge harrow, made of balks of timber with wooden spikes at the intersections, which set up outside the walls could be thrown crown down and forward to crush the besiegers as they crowded to the assault. When cannon were invented their names became legion. A ship or a train of artillery contained a perfect zoological garden of birds, beasts and fabulous animals. There were basilisks, drakes, dragons volant, falcons, serpents and pelicans, not to mention "double dogs" and partridge mortars.

We have of late years seen a good deal in the newspapers about the training of dogs for military purposes, such as scouting, giving notice of the approach of an enemy and searching for the wounded. In former days this intelligent animal was also employed in warfare, not only as a watch dog. One method of

"LETTING SLIP THE DOGS OF WAR"

was to equip them with a pot of blazing resin, a collar of spikes and a jacket of leather scales to protect their backs from the fire, and send them among cavalry, much to the confusion of the horses.

An Arab writer describes some wonderful war dogs which belonged to the Grand Seignior, which he says were as big as donkeys, were clad in rich cloth, silver collars and neck-rings and a circle of iron points around the neck. Some were even clad in armor. They were equal to tackling wolves, dragons in the fire, eagles in the air and crocodiles in the water; to say nothing of being able to bring down a man from horseback, "however stout a fellow he may be." Dogs equipped in much the same manner were also used for incendiary purposes to set villages on fire, as were also cats and pigeons.

With the advent of artillery and firearms, all kinds of queer weapons were from time to time invented. Many of them distinctly foreshadowed our modern repeating and rifled weapons. Not a few revolvers, repeaters and rifled muskets were made in the sixteenth and seventeenth centuries, but as the whole affair had to be made by hand their cost precluded any general adoption of these ingenious devices. The earliest cannon were breech loaders, and like our modern guns were built up rather than cast. But even after the invention of cast iron and brass cannon the smaller pieces were generally made to load at the breech. A couple of such weapons mounted in a kind of a cart were used by Henry VIII. against the Scots, and would appear to have been quite practical little affairs. They evidently could be wheeled like hand barrows; the sloping shield would afford excellent protection to the gunners and probably contained a receptacle for ammunition.

War carts or chariots were not unusual at this time, especially in Germany. They generally took the form of a rude machine gun, several musket barrels being placed together in the centre, and a great array of curly, murderous looking spears and halbreds arranged on either side. The Lyoners is a later type without musket barrels and intended for blocking a narrow passage. Sometimes a whole sheaf of musket barrels were fixed upon a stand or carriage. These contrivances were called orgues, from their resemblance to the pipes of an organ, or sometimes

THUNDER CARRIAGES.

Monster cannon were an early form of extravaganza in military weapons. There are several accounts of such pieces of ordance. A traveler once stated that he had seen at Brunswick a gun or rather mortar cast in 1411. It was made of brass, was 10 feet 6 inches long and no less than 9 feet 2 inches in diameter, and was said to be capable of throwing a 1,000 pound shell. India boasted several of these monstrosities. One still to be seen at Kubberpore is said to be no less than 21 feet 3 inches long and 5 feet 6 inches around the muzzle. It is called Jaun Kushall, or destroyer of life, by the natives, and was probably cast somewhere in Persia.

Another India piece, cast by Chuleby Koomy, Khan of Ahmednuggeer, about the year 1500, has such a tremendous bore that the interior is now fitted up as a kind of summer house. A cannon made as Bruges in 1346 had a square bore and fired cubical shot. Guns were made of all kinds of materials, though all such may be regarded as freaks or experiments. The leather guns invented by an officer in the army of Gustavus Adolphus had a certain vogue on account of their lightness. Some were effectively used against us by the Scots under Gen. Leslie at the battle of Newburn Ford in 1640. They were made by wrapping rope and twine around copper cylinders strengthened by iron rings. They were then coated with plaster, and finally covered with leather. They were very portable, but unreliable and short lived. Guns have been made of wood hooped with iron, not only in ancient times, but quite recently in the Philippines, where they were used against the American troops.

The Chinese had a gun made of bamboo in 1259, but only the other day the Japanese were making effective use of wooden mortars bound around with bamboo for throwing explosives into the Russian works at the siege of Port Arthur. Guns have been made of glass and even of ice. Some of the latter, made for saluting purposes at the marriage of the Russian Prince Gallitzi in 1739, are stated to have been "fired more than once without bursting." Guns have even been made of the precious metals. In 1663 there was in the arsenal of Verona "a great gun found in Candia, all of gold and silver."

A GOLDEN CANNON

was captured at Pekin in 1860, and King Thebaw of Burma was the possessor of another, which was also incrusted with precious stones. The early caliver was little inferior to a cannon in clumsiness, as it took three men to carry it and a fourth to fire it.

When firearms became somewhat more portable, and especially when pistols were introduced, we find them mounted in the most extraordinary fashions. Shields or targets not infrequently had a pistol fixed in the centre with a small grating for aiming through, but there is an account of a shield at Genoa which had no less than 120 pistols connected with it. Rather a heavy affair to handle, one would imagine. The Emperor Charles V. had a curious shield which he carried when walking about a night; "a spear came out of the side of it, beside that in the middle; if any thrust was made at the shield, the sword's point was catched in it and broken."

Another surprising mediævel contrivance was an iron hat or helmet, which is described as having "two crowns, each with four pistols." A volley of eight shots from an opponent's headpiece must have been very disconcerting—probably to all parties concerned. A curious mortar in the Tower of London is square in front and has no less than nine separate bores. The eighteenth century was distinctly the epoch of sieges. The attack and defence of carefully fortified places was carried out in the most methodical and patient manner.

There were many inventions at that time especially applicable to the attack and defence of fortified towns. The petard was much used. It consisted of a bell shaped iron receptacle filled with powder and clamped down to a block of hard wood. It was intended to be fixed to doors and gates for the purpose of blowing them in. Another device was the pot a feu or fire pot, which was a kind of ball or globular jar filled with old tarred rope, which was thrown upon the enemy's works, to light them up at night and enable fire to be directed upon them. Loaded pistol barrels were attached to these to prevent any one from picking them up and extinguishing them. The pistol a reveille could be set to explode a mine at a given hour.

But all said and done, we need not dive into the past to find extraordinary ideas and weird warlike appliances. Our modern inventors are quite capable of keeping up the supply. Leaving aside the steam guns, which were intended to spurt out streams of bullets after the fashion of a Maxim gun, which were invented by Perkins in 1824, by Winans in the '60s, and the very similar compressed air gun patented by one Sturgeon in 1887, none of which realized its inventor's expectations, we can find plenty of

EXTRAORDINARY CONTRIVANCES

The wire bullet proof screen behind which the soldier advancing to the attack defies any projectile smaller than a three-pounder is as far fetched an idea as anything produced in the Middle Ages. The reservoir helmet, a French scheme, is about as quaint as anything we have noticed. The lower part of this eccentric headpiece forms a species of tank or reservoir, into which the water (and pipe clay?) drains from the upper surface of the helmet. The soldier's head is therefore kept cool in the tropics—though the weight may perhaps be rather trying—and when athirst all he has to do is to remove his helmet and fill his cup from the tap at the back.

One of the most important qualifications of a good soldier is to be able to march well, but it is doubtful whether the wearing of a pair of spring soled boots, such as a recent inventor has suggested, would add many miles to the day's march. These "seven league boots" have an outer sole, which is pivoted to the one made on the boot just below the ball of the foot. A strong spiral spring is fitted between the two at the heel. To see a whole regiment charging a position wearing these boots and bounding over the ground like kangaroos or wallabys, would indeed be a remarkable sight.

Another remarkable invention is a cannon that takes completely to pieces. It consists of a series of strong steel rings which fit over the inner tube, which is, of course, rifled internally. Externally it tapers slightly, so that it is bigger and thicker at the breech end. The rings slide down on this tube in their proper order, the central ones having projections to form the trunnions of the piece, and are screwed tight up by means of four rods and nuts fitting into a massive framework at either end of the gun. The rear one of these carries the breech closing mechanism.

Invisibility has been pretty well secured by the invention of smokeless powder and now inventors are trying soundless explosion into the bargain. This was effected in ancient days, according to an Arab writer, by the "powder which explodes without sound," made at El Meidaun, to do away with the noise of the explo- the ashes of human bones taking the place of charcoal. The making of this propellent is now, at any rate, a lost art, but the same object is to a certain extent attained in other ways.

Col. Humbert of the French army has invented a species of tube which, affixed to the muzzle of a field piece, prevents either flash or sound, while a rifle invented in America has a big cartridge containing water, which interposes between the bullet and the powder charge in its base. This is supposed to regulate the escape of the powder gas and so minimize the report without diminishing the force and velocity with which the projectile leaves the barrel. The great addition which this system would make to the weight of the ammunition is quite enough to put the weapon out of court for military purposes.

Grippe or Influenza, whichever you like to call it, is one of the most weakening diseases known.

Scott's Emulsion, **which is Cod Liver Oil and Hypophosphites in easily digested form, is the greatest strength-builder known to medical science.**

It is so easily digested that it sinks into the system, making new blood and new fat, and strengthening nerves and muscles.

Use *Scott's Emulsion* after Influenza.

Invaluable for Coughs and Colds.

ALL DRUGGISTS: 50c. AND $1.00.

ACROSS CANADA IN THREE YEARS.

Remarkable Trip Made by an English Lecturer.

A walking geography of Canada arrived recently in Vancouver in the person of Mr. H. Haywood, a fellow of the Royal Geographical Society of London, and lecturer, with Canada as his subject.

To master his subject Mr. Haywood has travelled from Halifax to the Terminal City by daylight, the tour having taken him three years. He has travelled thousands of miles by rail, steamer, and stage, also many hundreds of miles on foot, visiting large and small centres, new and old settlements, farm and mining districts, lumber camps, industrial centres, places that would afford him an opportunity of obtaining particulars respecting the resources of the country.

Mr. Haywood's aim has been to thoroughly know the country, from Atlantic to Pacific, its means and methods of transportation; its population; its products, and general resources; its cities and towns, and what they are noted for, so that he may make use of this knowledge during his lecture tours round the world. The views, with which his lectures are to be illustrated, will show the beauty spots that are of note and interest, besides street views, cities, parks, rivers, waterfalls, public institutions, and such scenes as would be an inducement to travelers and tourists generally to visit.

He also desires to induce travelers from Bombay, Madras, Ceylon, Calcutta, Australia, and New Zealand to favor the Canadian route in visiting England, so that they may become acquainted with Canada, its people, and the many picturesque spots that are to be seen from Vancouver to Halifax. His lectures will also be given in the United States.

He will try, while in British Columbia, to obtain a perfect collection of views descriptive of the country, so that outsiders, that is, people in other parts of the world, who may attend his illustrated lectures, may gain a good idea of British Columbia and its many beautiful scenes, with which the whole Province is so richly endowed; its great resources, stores of wealth, and the advantages to be derived by making it the great highway to Europe.

DAILY FADING AWAY.

The Story of a Woman Made Well by Dr. Williams' Pink Pills.

Bad blood means bad health. That is why Dr. Williams' Pink Pills mean good health. They actually make new, rich blood which strengthens every nerve and every organ in the body. That is why people who use Dr. Williams' Pink Pills feel bright, active and strong. Mrs. Arthur Hannigan, Marshville, Ont., is a witness to the truth of these statements. Mrs. Hannigan says:—"For nearly three years I suffered from anaemia (bloodlessness) and during that time consulted and took medicine from several doctors, without beneficial results. My complexion was of a waxy appearance, my lips and gums seemed bloodless. I suffered from headaches, dizziness and palpitation of the heart. My appetite was so poor that I did not care whether I ate or not and I grew so weak, and was so much reduced in flesh that my friends thought I was in consumption. As I have said, I doctored without benefit, until the last doctor whom I consulted advised me to try Dr. Williams' Pink Pills. I followed his advice, and less than a dozen boxes have made me the well woman I am to-day. All the symptoms of my troubles have vanished and I enjoy the very best of health. I know there are hundreds of women who are drifting into the same condition I was, and to all such I would strongly urge the immediate use of Dr. Williams' Pink Pills."

Dr. Williams' Pink Pills do not act upon the bowels; they do not tinker with mere symptoms; they go right to the root of the trouble in the blood. That is why they cure common ailments like rheumatism, neuralgia, kidney trouble, headaches and backaches, St. Vitus dance, and the special ailments that afflict so many women and growing girls. Sold by all medicine dealers or by mail at 50c. a box or six boxes for $2.50 from The Dr. Williams' Medicine Co., Brockville, Ont.

CAUGHT HIM.

Five young men went into a shop the other day to buy a hat each.

Seeing they were in a joking mood, the shopman said, "Are you married?"

They each said, "Yes."

"Then I'll give a hat to the one who can truthfully say he has not kissed any other woman but his own wife since he was married."

"Hand over a hat," said one of the party. "I've won it."

"When were you married?"

"Yes'erday," was the reply, and the hat was handed over.

One of the others was laughing heartily whilst telling his wife the joke, but suddenly pulled up when she said:—

"I say, John, how was it you didn't bring one?"

It's as easy to annoy grown folks as it is difficult to amuse a baby.

CHRONIC CATARRH NOSE AND THROAT

"At the Advice of Friends I Tried Pe-ru-na and the Results Have Been Highly Satisfactory." — So Writes Mr. Pilon.

MR. RAOUL PILON, 116 Rue Notre Dame, Lachine, P.Q., Can., writes: "I write you a few words to express to you my satisfaction at being cured. **I was afflicted with catarrh of the throat and nose and suffered much.** I was greatly discouraged. I had a bad breath and bad taste in my mouth in the morning.

"I took treatment for some time without obtaining relief. At the advice of friends I tried Peruna and the results have been highly satisfactory. **At the end of four months I was completely cured.**"

Neglected catarrh becomes chronic. Having developed into the chronic stage, a longer and more persistent treatment will be required to cure it than if the disease were treated at the onset.

However, Peruna will bring relief, whether the catarrh is acute or chronic. If you are wise you will keep Peruna on hand and take a few doses at the first appearance of a cold or cough, and thus save yourself both suffering and expense.

Patients have the privilege of writing to Dr. Hartman for free advice. A book on "Chronic Catarrh" will be sent upon request.

Ask Your Druggist for Free Peruna Almanac for 1907.

THE SHABBY GREAT.

Eminent Nobleman Shuffles Down Regent Street in Raggy Apparel.

It is one of the privileges of being great that one can afford to have samples of by-gone repasts on one's waistcoat, writes Mrs. John Lane in an article on "The Tyranny of Clothes," in the January Fortnightly.

The Englishman, she says, is not only the apotheosis of the perfectly dressed, but he can reach a degree of shabbiness which is phenomenal. Not the poor and obscure, but the rich and usually the great. Who has not seen the great shabby and spotty to a degree?

"Before I had learned by experience, I remember being introduced to the shabbiest, spottiest kind of old gentleman in Regent Street, who was shuffling along in company of an aged, greeny-brown umbrella. He looked as if a shilling charitably bestowed would have been a godsend. I took a hasty inventory of his spots, his draggled necktie, his frayed waistbands, his down-trodden boots, and felt rather superior.

"It was, therefore, with a start that I heard a very famous name indeed, and found myself shaking the limp hand of a very eminent nobleman. He saw that I was deeply impressed, but distinguished though he was, he could not guess the real reason. I watched him shuffling down Regent Street the threadbare seams of his coat boastfully outlining his bent back, and it struck me that he looked modestly triumphant as he climbed the bus that passes the palace in which he lives.

"If ever a man was tyrannized over by a mean umbrella, a threadbare coat, and frayed trousers—the kind that hitch up behind—that was the man."

WHEREIN THEY DIFFER.

"Character," remarked the thoughtful thinker, "is one thing and reputation is quite another."

"Wherein do they differ?" queried the very young man.

"A good character is a luxury," explained the T. T., "but a good reputation is a necessity."

ADVICE TO MOTHERS.

If you have a baby or young children in the home always keep a box of Baby's Own Tablets on hand. Don't wait until the little one is sick, for sometimes an hour's delay may prove fatal. This medicine cures stomach troubles, constipation diarrhoea, simple fevers and makes teething painless. If children are sick Baby's Own Tablets make them well; and better still an occasional dose will keep them well. The Tablets are good for children of all ages and are guaranteed to contain no opiate or harmful drug. Mrs Joseph Ross, Hawthorne, Ont., says:—"I have used Baby's Own Tablets and find them just the thing to keep children well." These Tablets are sold by all medicine dealers or you can get them by mail at 25c a box by writing The Dr. Williams' Medicine Co., Brockville, Ont.