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TO MERCHANT
 News to His Fel-
 Citizens.
 5.—Here is a letter
 one of our readers will
 39 years old. Have
 for four years with
 was Rheumatism—
 muscles of my legs,
 soon. The stiffness
 went to Hot
 back a little better,
 drinker, but quit us-
 ether, and carefully
 diet. One day I got
 the trouble was worse
 to lay off for three
 had similar attacks at
 since, each one worse
 than the last. Had
 headache, all of the
 back, urine
 and scalding. Began
 old's English Tonic
 ago, and am already
 cured. Feel con-
 fidence me, and I shall
 well for years as I
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 Tonic Pills, the only medicine
 by killing the germs that
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 on receipt of price, by The
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PS'S
COMFORTING.
COA
ST—SUPPER.
SION
 substitute for
 the taste,
 most sensi-
 physicians
 throat and
 if results
 almost no
 do.
 on receipt of 10
 Toronto

THEY LIVED IN 6000 B. C.

ARTIFACTS FROM VERY ANCIENT TOMBS OPENED IN EGYPT.

Some of the most interesting artifacts were used then—the habits of the people were very different from what they are now—family was felt.

How long has man been on earth? The answer to this question is being furnished by every turn of the explorer's spade. The expedition sent out by the University of Pennsylvania, which has been at work at Nuffer, has set the date of 6,000 or 7,000 years for some of the monuments discovered. Now comes M. E. Amelineau to re-enforce these dates by discoveries in prehistoric Egypt. The full results of the discoveries has not yet been published, but this investigator has prepared the way to it by issuing the first volume of his account of the excavations at Abydos, the sacred residence of Osiris. Here he has found prehistoric tombs, some 150 in number, the contents of which go back at least 8,000 years. Fortunately for us, who feel curiosity as to the doings of those distant ages and the men who lived then, the Egyptians had the custom that death was but the bridge from this life to the next, which would resemble this one so closely that the very food and furniture used here would be useful there. On this account, they furnished the tombs as they would furnish homes. Therefore to them have been found the very food and the utensils which the men and women of that time used while alive. It is to this fortunate accident that is due the exactness with which a nineteenth century excavator can say precisely how those who died 6,000 years B. C. lived, what they ate, how they dressed and what was the range of mind and civilization in that ancient time.

OLD CEREALS.

In the jars and vases of these old tombs Amelineau has found various cereals, like wheat and rye, proving the agricultural tastes of those people. Date stones are excellent evidence that the date palm was even then appreciated for its food products. For were these pre-historic people vegetarians, for if they were why should there be the bones of oxen and the horns of the gazelle in their tombs? Amelineau has actually taken us back to the stone age and the beginning of the use of metals in Egypt, for he has found innumerable arrow heads cunningly chipped out of flint, and knives, scrapers and saws made of the same hard material. The decorative instinct was already alive, or why should those old workmen have spent days on polishing and chipping stone bracelets?

INLAIN WOOD.

Besides the common pots for kitchen use, and the fine vases for the parlor, there were discovered pieces of wood wonderfully inlaid with pieces of colored glass, showing that the secret of manufacturing glass was known even then. This seems to indicate a long period of preparation or development, for men did not invent glass when they were crude and uncivilized. In fact, the discoveries at Abydos open so wide a vista of possibilities that we are scarcely surprised to hear that the tombs of the gods of Egypt have been actually found. But before this startling discovery was made, M. E. Amelineau stirred up the world's Egyptologists by the announcement that he had found the names of 16 royal personages hitherto unknown. He knew that they were royal, for their names were written in a public device, and it was just as if the sculptor had engraved King So and So. It is from these designs that the word Pharaoh is derived, or rather the devise signifies Pharaoh, from the Egyptian Per-aa, "Great House," that is, the place of the court.

When M. Amelineau opened some of these graves he found them to be the tombs of these great unknown kings, already acknowledged as kings of Upper and Lower Egypt, but not yet known as Sons of the Sun, the title of the late Egyptian monarchs. Among these was one whose name he reads Den, and another Qa, and 14 besides, some of whose titles could not be read, as they were entirely new. For instance, one was indicated by the sculpture of a serpent, but how this is to be pronounced or what it means the Egyptologist has yet found out. On comparing the names just found with all the long list of Egyptian Pharaohs, not one like any of them could be found, and it was very logically concluded that these antedate Menes, and that only now are we reaching the earliest history of Egypt.

PRIMITIVE TOMBS.

The tombs are primitively constructed, some of the walls being so irregular that it is to be doubted whether the plumb line was then known. But, nevertheless, the interiors of the tombs were most interesting. Some of them were so short that it was evident that no human body could have been laid here at full length, and the explanation was forthcoming that at last in a tomb which no vandal Arab had reached a body was found all curled up and surrounded with earthenware pots containing food, ointments,

etc. Of course, there was no thought then of embalming and it was entirely due to the dryness of the soil that the body had been preserved at all. In the tomb of the Pharaoh whose name was indicated by a serpent, it was found that there was a number of adjoining chambers, probably intended for the bodies of his wives or of his prominent court officials. The tomb of one of these, by name Nebnofer, "good master," a royal scribe, was among those found. The floor of this tomb was made of heavy sycamore planks, which may well stand as the oldest planks in the world, being some 3,400 and odd years old, as well as can be estimated. Instead of having been nailed down to cross pieces, they were simply tied together by bands of brass, which were still found in place. The mortar, too, was found to have been mixed with fibres of palm leaves, much as hair is now used to mix with plaster, proving that this secret was known a few thousand years ago.

CIVILIZATION TRACED.

It is almost possible to trace the development of civilization step by step through these remains, for here are earthen plates so rudely shaped as to prove that the potter's wheel, one of the first inventions of primitive man the world over, was not yet known. Then come other plates and pots and jugs just as surely turned on that very useful machine, showing the next step upward. The following evolution of inventive genius shows itself in the more elaborate pottery, and the use of metals for making rude tools. Hard stone was now cut and shaped, diorite, onyx and rock crystal jars and vases were made with so much art that their highly polished surfaces astonish the modern discoverer. It seems as if the use of the diamond or some other hard substance must have been known by the people who hollowed out some of these vases, on the inside of which are still to be seen the marks of the cutting implements. It was found that some of the tombs were paved with a kind of rose-colored marble, not native to Egypt, and therefore this in which the shading of the plumage is must have been imported from some distant country, showing that the men of that time travelled and believed in imported goods much as we do.

PERFECT WORKMANSHIP.

From stage to stage the perfection of the workmanship and the care displayed in ornamentation increase constantly. The primitive geometrical designs on the earliest pottery give way to drawings from life, and there are representations of ostriches so lifelike as to be easily recognized; a carving of a duck's head in hard schist brought out, and a carving of a human hand in the same hard material, where the lines of the finger nails are well defined. As to wood carving these old artists were experts. They took the ebony which they had to import and carved perfect statuettes of lions, or of Nubian women, which can be identified as such by the low forehead, angular face, small eyes, prominent cheekbones, large mouth, thick lips, and hair parted into a number of tresses. Here is a frog carved out of diorite, as unmistakable as if it had been done by a modern artist.

ROTTEN WOODWORK.

The furniture was only found in bits, for the woodwork had generally rotted away, and all that remained was the ivory legs of sofas—the most remarkable finds made. These were so large that it is certain they must have been made of the tusks of the hippopotamus. That this animal was hunted by the early Egyptians is well established by wall paintings, but the proof furnished by the finding of these tusks is far more conclusive, carrying the mention back several centuries. The manner in which these legs are carved to represent the legs of oxen is one of the marvels of all who have had the good fortune to see the tusk of this early age is by no means primitive, for there are bronze bracelets, cunningly turned into serpents, alloys of silver and gold, copper and brass, and other tools of the earlier stage when pure copper was used. To illustrate how near akin mankind has been through these myriads of years it is only necessary to mention the discovery in one of the tombs of what must have served as a baby's nursing bottle in the long ago. It was an earthen vase, with a hole in the side, into which a bit of cloth might be inserted that the baby might draw his milk from the vase. Is there anything new under the sun?

DOGS OF WAR.

Real Animals Valuable, But Bark at the Wrong Time.

There is only one drawback that can possibly attend the taking of dogs on war expeditions, and that is that they may bark when a night surprise is intended; but even this does not apply when due precautions are taken, and in recent campaigns the presence of favorite dogs of officers has been repeatedly referred to.

In the German army a great number of dogs are trained in connection with the ambulance corps. At the command "Seek," and a gesture indicating some point of the compass, they start off and when they come across one of the men specially lying down in imitation of the wounded, they take up his cap, helmet or handkerchief and bring this back to the ambulance and the men, whom they lead back to the spot. These dogs were a striking part of the show at the last maneuvers.

WAR NOW LESS HORRIBLE

EFFECT OF IMPROVED MACHINERY AND MODERN SURGERY.

Long Range Bullets More Humane Than Those of Old-Hand-to-Hand Conflicts Relegated to Barbarians of the Past—Interesting Subject Discussed.

Powder has spoken. It rests with that great agent now to put an end to the Anglo-Boer conflict. A signature of blood will alone settle the proposed suggestion to intervene. One can only deplore this struggle, which brings into play so many human lives and destroys so many lives. If it causes joy to the monstrous but happily scarce apologists of war, under the fallacious pretext that wars are regenerative, it plunges into consternation and too often into mourning those who do not think men were created to detest and destroy one another.

Each people seeks to do better than its neighbor. It is a constant tendency, a regular game with a record to beat. In 1836 the Germans held the record with the needle gun, but this record has often been beaten since. In 1870 they held the record for superiority in numbers, thanks to which France was suddenly invaded.

In the days of Napoleon victory was largely a matter of speed. So it may be said that the great Captain won his battles with his soldiers' legs. Today, when railways have made the concentration of troops rapid and easy, the god of battle does not favor as much as at the beginning of the century those who arrive first on the field of action. And this because a new factor has made its appearance—the rapidity, precision and efficaciousness of fire.

HOW VICTORIES WERE WON.

The victors of Austerlitz, Jena and Wagram were only armed with rudimentary flint guns, the smooth bores of which took only a round leaden bullet, carrying from 60 to 80 meters. And, even then, rain had only to fall during the battle to silence their weapons, since, if the powder in the pans was wet it would not light by the spark from the flint. As for the cannon, they discharged solid shot and bombs, but not to any great distance.

After 100 years nearly all the conditions which govern the art of war are changed. Hand-to-hand fighting is a mere accident; engagements begin at a distance of several kilometers, and with weapons so perfect that the two sides hit without seeing each other, and generally produce wounds sufficient to stop a man's advance and put him hors de combat without seriously endangering his life.

For the last 20 years ballistics have progressed continuously, and firearms have undergone, and are continually undergoing, fresh improvements. The modern weapon, at once more complicated in its structure and more simple in its use, has the enormous advantage over the old of a more powerful fire and perforation, more simple, more sure and more rapid, which requires of the shooter a minimum of instruction and effort. Projectiles have been fitted with a metal casing which enables them to be made longer. The use of smokeless powders of great explosive power has extended. Lastly, as a consequence of recent researches, it has been possible to reduce the caliber of weapons, thus reducing the weight of the rifle and projectiles to a minimum, and consequently enabling each marksman to carry a larger number of cartridges.

GOOD LONG RANGE WORK.

It is sufficient now to shoot in front of one to be a practically useful marksman. As far back as at Saint-Privat in 1870 men were shot at 1,000 meters, and in 1878, at Plevna, the Turks, though inexperienced, opened fire at distances of 1,500 and 2,000 meters. At the present time 1,000 meters is no longer a great distance, but a normal firing distance, especially in defense. The perforating power is such that it is manifested far beyond 2,000 meters. At a distance of 2,000 meters an 8 mm. bullet has still enough force to pass through a front rank man and wound the man in his rear when troops are drawn up two deep. At the average fighting distance two or three men may be wounded by the same bullet at that short distance, without saying anything of the greater thickness, now given to works of fortification on the battlefield, a single projectile would have force enough to go through four, five or six men. Thus, in Dabomy, it was observed that a bullet, after penetrating a tree 45 centimeters in thickness, still went through five men.

These are astonishing facts which will not be seen in reality as often as some people say. For this to be the case it would be necessary not only that the bullet should undergo no deviation, after having passed through the first obstacle, a thing which always happens at least after the second, but also that its point should not be deformed. Now Lagarde's experiments have proved that this happens in half the number of shots.

IN THE BULLET'S WAKE.

It is seen nowadays that the wounded are more numerous, but the killed much fewer. A supreme consolation

lies in the fact that the wounded not only receive less serious wounds, but are surrounded with such immediate care that they more frequently recover their health. As a last analysis the wounded, though they are more numerous, show a lower mortality.

With the ballistic power of modern weapons men are hit at great distances. Under these conditions the bullet only passes through the tissues without tearing them, or perforates the bones without producing real sequestrum. And the dressing to be done is much more simple. It is sufficient to place at the orifices caused by the ingress and egress of the bullet pads of aseptic or antiseptic gauze kept in place by a bandage to see the wound become cicatrized. If the wounded man shows a little fever on the evening of his wound the dressing is taken off and the passage made by the bullet syringed with antiseptics to drive out the foreign bodies which cause the fever.

What happened of old? Many soldiers succumbed to slight wounds, carried off by complications which it was not known how to foresee or prevent. It is a very little thing not to touch the wound, but simply cover it with stuff from which all the germs have been removed. And if the wound is infected either by earth or by fragments of clothes, or from any other cause, the use of sterilized bougies to open it if necessary, and of antiseptic liquids suffices to put matters right and to keep the wounded man from the danger of putrid infection, which used to make so many victims.

OPERATIONS LESS PAINFUL.

Supposing that it is a question of the shattering of the knee by the bursting of a shell, or the comminative fracture of a thigh, the present progress of surgery gives the patient more chances of recovery than of death. Formerly the limb was sacrificed, and the operation was accompanied by the most horrible sufferings. At the present time the use of ether or chloroform renders the operation as easy for the operator as it is painless for the patient. The average traumatism necessitated a great use of the knife. For an open fracture of the tibia recourse was at once had to amputation of the leg. Injury to the bones of the foot led to similar consequences. Now, neither the knife nor the saw comes into use, except in very rare cases. It is asepsis and antiseptics which allow of seriously wounded soldiers being preserved from complications. The preservation of limbs is the general rule, and it is only when everything else fails, when everything is shattered or torn off, that the surgeon decides to amputate.

A surgeon had to possess an unusual degree of nerve to preserve the necessary calmness during an amputation made without anaesthetics. As a consequence the principal idea was speed in the carrying out of operations, with, as a result, an unfavorable influence on their success. The skill of this or that surgeon was legendary; to-day this equality is relegated to the second or third place. There is no necessity to hurry; chloroform allows the operator to proceed quietly, surely and efficaciously. The surgeon has all the time he needs, but his work must be irrevocable.

ADVANCED SURGERY HELPS.

The performance of an amputation resembles but little that of former times, though the cutting of the flesh and bone is necessarily the same. But what was not done formerly was the forcing back of the blood toward the base of the member by means of an elastic band, thus preventing the flow of the vital fluid, and allowing the surgeon to operate "a sec." Then there is the cleaning with soap, alcohol and ether of the parts to be operated upon, the heating of 130 degrees of 140 degrees centigrade of the instruments and the bandages, the sterilization of the hands of the operator with soap and prolonged immersions in antiseptic liquids, the employment of absorbent ligatures, the minute coaptation on the wound and the exact suture of its edges. The consequence is a rapid local recovery, so much so that in 12 or 15 days the wound of an amputated thigh is healed, which formerly was a matter of months, if indeed, no fatal results supervened.

During the Crimean War of 1854-55, hospital gangrene broke out at the same time as the cholera, scurvy and typhus, and showed a high degree of severity. It was observed in the Chersonese, in Constantinople and on the transports bringing the wounded from the Crimea to Constantinople and from Constantinople to France. It made equal ravages among the English and Russian wounded.

During the war in Italy in 1859 it reappeared in the Italian, Austrian and French hospitals. It broke out during the Civil war in the States, in Germany during the wars of 1864 and 1866, and finally during the campaign of 1870-71. It has even reappeared in more recent wars, but in a less intense form, much more mild than at the beginning of the century or that of 1854-55. Hospital gangrene is a microbial malady and gives way to antiseptic treatment. War must be made against it unceasingly.

QUICK DISEMBARKATION.

A remarkable piece of disembarkation work was accomplished when the Hawarden Castle reached Cape Town recently. Her troops, which numbered 1,700 men, together with stores, ordnance and rations for 14 days, were landed and entrained in 40 hours.

THE AMMUNITION TRAIN.

MORE BRAVERY NEEDED THAN IN ANY OTHER SERVICE.

Always in the Thickest of the Fight, But Are Defenseless—Their Business to Supply Shot and Shell to the Firing Line Regardless of Consequences.

It has been announced in the newspapers of late that among the troops leaving for South Africa have been many men of the "ammunition column." This tells nothing to the average reader, however. He has heard of the Lancers and of the Dublin Fusiliers, but the "ammunition column" is a body of whose existence he has previously been ignorant, and at whose work he can only guess.

Briefly, this ammunition column is a branch of the Army Service Corps, a body which acts as a sort of "Universal Provider" for the British army in the time of war, and its duties are to keep well up with the firing line during an engagement and see that it is well supplied with ammunition. When setting off to attack the foe, the ammunition is distributed as follows: Every man of the infantry and cavalry has the magazine of his rifle or carbine, as the case may be, filled, and he carries 100 spare rounds in his pouches. Further supply of 200 rounds per man with a suitable allowance for the quick-firing machine gun which is attached to each infantry battalion is conveyed directly in the rear of each regiment in a wagon bearing a distinguishing mark to show to which corps it belongs, and this forms the first reserve, from which the soldiers' pouches are replenished as fast as they are emptied.

MIDST FLYING BULLETS.

A small detachment of the ammunition column accompanies every regiment into action to convey the supplies from the wagon to the firing line. The work which these men perform is perhaps the bravest of any on the field of battle, but it is a work of which we hear little. Their duty compels them to keep well up with the firing line, and yet they take no part in the firing, though the enemy's bullets may be falling round them in all directions. Their business is to hurry forward the ammunition and never mind what is happening in front of them, and to this they devote themselves.

As the battle rages, however, the supply of ammunition in the wagons at the rear of the position becomes depleted, and it is at this stage that the real work of the main body of the ammunition column commences. This body has for some time previously been hanging in the background, well out of reach of the enemy's shells, in charge of a long string of wagons filled with projectiles of every description. From these regimental wagons are refilled. Not only does this column carry the ammunition for the small arms, as the rifles, carbines and machine guns are described, but the shells for the artillery as well. These shells are of many kind, such as common shell, plugged shell, shrapnel, and canister, and wherever the guns go these wagons must be close behind them, no matter what the hazard, for a battery without ammunition in abundance is in the same state as a first-class modern battle ship with empty coal bunkers, and with the warships of the foe rapidly bearing down upon it.

The stock of these wagons is in turn replenished as soon as possible from the main supply, which is maintained at the base of the army.

UNDER A STRONG GUARD.

The ammunition column as constituted to-day is a modern innovation. Formerly every regiment taking part in the campaign detailed so many of its men to take charge of the regimental ammunition and to distribute it, but this somewhat rough-and-ready system has been abolished in all modern armies, as it was found that one regiment might have ample ammunition, and yet the next one to it might be reduced to its last cartridge; but the feeding of the firing line of the British army has now been reduced to a perfect state, and it should be next to impossible nowadays for a regiment to be put out of action owing to the failure of the ammunition supply. This was the case, however, with the two British regiments at Nicholson's Nek a few weeks ago, but that was an abnormal circumstance brought about by the stampede of the mules which bore the spare ammunition, thus leaving the men with only what cartridges they had in their pouches, and it is unlikely in the extreme that such a case will ever happen again.

In addition to feeding with ammunition the soldiers actually engaged in the fighting line, the ammunition column has other duties, such as attaching the fuses to the shells, and aiding the artificers in the repair of damaged guns or gun carriages, and during the whole time a war lasts one of the hardest worked bodies of men are those employed in serving out the ammunition.

A RENEGADE ENGLISHMAN.

The editor of Voortrekker, a Krugersdorp paper, which has gained notoriety of late by its violent attacks on the British race in general and the troops in particular, is an English curate, and late head master of All-wal Public School.