

ARMS OF THE ARMY

By Captain Ambrosio P. Peña, FA



THE FIELD ARTILLERY

THE history of the development of this arm is most fascinating. In a strictly modern sense artillery is synonymous to big guns and their projectiles. But this was not so at the outset when this branch of the military service was associated with any contraption which could be used to hurl missiles to a relatively great distance. Thus in the ancient military establishments of the Persians, the Greeks, and the Romans, there were in general use the ballista, catapult, onager, trebuchet, and the crossbow, capable of hurling to a distance of at least one mile large chunks of rocks, volumes of "liquid fire," big logs, and arrows. In these early implements of war we find the crude beginning of the artillery.

The greatest step toward the development of the artillery as it is

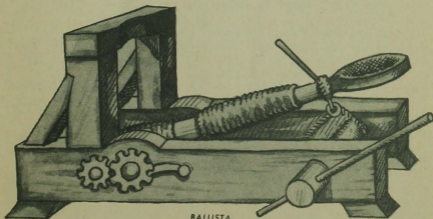
construed today was the invention and use of gunpowder. Just when and where this was first used cannot be determined. But it is definite that the powder itself is of Chinese origin and was used by them for almost one thousand years before Christ. It was surely in ancient Cathay where man must have found out that a projectile could be discharged from a metal tube by the explosion of a charge of powder. In fact at the time when Europe was only being startled by Marco Polo's (1254-1324) account of this "miraculous" black powder which the Chinese used in their wars, many other Orientals were well acquainted with the firearm and cannon. The early Filipinos, particularly the Moros, were no exception for as early as the 13th century they had possessed and used an artillery piece called "lantaka," a smooth-bored, muzzle-loading cannon cast of bronze.

Meanwhile, early in the 14th century, the Saracens invaded Christian Europe, bringing along with them gunpowder, and two years after Marco Polo's death, the Moors used it extensively in their military operations in Spain. Still later, in 1331, guns were used for the first time by a group of Europeans — the Germans — in their siege of Civildale. Feudal Europe learned that gunpowder stopped effectively the armored warrior and the latter became receptive to its use. By the close of the 14th century firearms and cannons were well known in Europe. Since then the old western world has wrested the leadership from the East in the manufacture and development of all sorts of powder-ignited weapons.

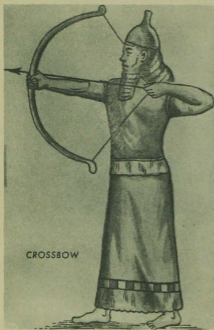
Early in the 15th century the old artillery missile engines, such as the onager and ballista, were discarded. Cannons which were cast

of bronze, copper, and iron came into the picture, but the changes were slow in coming. Although the "carts and gonnies" or field artillery originated during the Hussite Wars (1419-1436), it took more than a century before an artillery of sizable proportion could be organized for military operations. Even at that, the artillery was not organized into a separate and distinct arm, for it was employed in battle merely as an auxiliary weapon to either the infantry or the cavalry.

The world had to wait for a military genius in the person of King Gustavus Adolphus of Sweden (1594-1632) to organize and employ an artillery of some value. Gustavus, who "founded real field artillery" designated as a separate arm, employed his army with the combined action of two widely known arms at the time — the infantry and cavalry — and the field artil-



BALLISTA



CROSSBOW

lery. By the standards of the time, as an artillery drillmaster Gustavus had no peer; he had trained his cannoners to fire twice as fast as his musketeers which seemed an incredible feat.

Though the Swedes took the lead in organizing the first real field artillery, they were not to dominate in its development. After Gustavus, Frederick the Great (1712-1786) of Prussia became the outstanding military figure of Europe. He did much to improve the general set-up of the Prussian military establishment. His contribution in the development of the field artillery seemed negligible, however, although he is remembered best for the many special privileges he gave his artillery men. For instance, Frederick's

artillery men could not be tried by the Provost Marshal; they may be accompanied to war by their respective wives and families, and beforehand they were assigned special portions of the expected booty of the city besieged. On top of these the artillery men did not have to wait in a "chow line" for they were served ahead of the other soldiers. But Frederick imposed a special penalty on the luckless gunner who missed his target — he was either flogged or hanged.

On the other hand Austria, then Prussia's greatest rival at the time Frederick ascended to power, developed the artillery extensively, forming them into separate tactical units. The Austrian artillery was commanded by a general officer, Prince Liechtenstein, which contrasted greatly with Frederick's Chief Artillery Officer who only held the rank of lieutenant colonel. Austria's artillery was much superior to the Prussian's, and at one time during the Battle of Torgau (1760), it almost inflicted a crushing defeat on Frederick's army.

Into this scene came the least known of Europe's great soldiers who is considered today as the "father of modern field artillery." He was a Frenchman named Gribeauval, who, after serving and learning all that could be taught him by Prince Liechtenstein, went back to his country to head the field artillery of the French Army. Gribeauval did much to improve the design of the French gun and the tactical employment of the field artillery, which was further improved by the "Little Corporal," Napoleon Bona-

parte, one of the world's greatest soldiers and artillery men of all time. It was Napoleon who organized the field artillery into batteries and regiments generally along the same line as they are known today.

For centuries the artillery men were regarded as technicians rather than soldiers. It was the common practice for civilians to be awarded contracts to furnish the army with guns, gunners, supplies, and transportation. When Napoleon came to power he found in the French Army this kind of civilian contractors who owned the horses and hauled the artillery's guns and caissons. He abolished this system and made the field artillery an integral part of the army with regular enlisted men who were trained just as those of the infantry and cavalry. The other European powers were to profit from Napoleon's act.

Up to Napoleon's time, the standard artillery piece was the "smooth-bored, muzzle-loader" that used a round projectile. This required the rumming of the projectile and its powder charge separately into the bore for each shot. Gunnery was therefore a tedious job so that in spite of the dexterity of the gunners it was extremely difficult to fire rapidly.

At the beginning of the American Civil War (1861-1865) the first breech-loading gun was introduced, but the construction of the breech mechanism was defective so that many disastrous back-fires resulted. This was shortly followed by a more drastic change in the form of riflings, which is a series of grooves

inside the barrel of the gun. At about this time smokeless gunpowder was also invented.

The breech-loading, rifled gun and smokeless gunpowder, were perfected in due time, thereby becoming the signal achievement in the development and progress of the artillery, for the gun could now be loaded fast and fired at a comparatively greater velocity and range, with the use of elongated projectiles. And yet it was not until the Russo-Japanese War (1904-1905) that the field artillery became prominently important in the military world. Up to that time it was thought that advancing armies could be stopped by a series of fixed, concrete fortifications. It therefore startled the military leaders the world over when the Japanese heavy guns dealt the supposedly impregnable fortress in Port Arthur the crushing blows that would ultimately prove disastrous to the whole Russian Army.

Later in 1914, the Germans duplicated this feat when they crushed into the fortresses guarding the German-Belgian border. From thereon the field artillery was to play a decisive role in the victory or defeat of any army.

Speaking now of the modern field artillery, including its "brother" the coast artillery, the arm has ever since been associated with big guns. Its principal mission, as in the past, is to utilize its firepowder to beat down the enemy and allow the friendly infantry to close in and complete the former's destruction. In retrograde movements the field artillery is called upon to set up a curtain of fire between the enemy

and friendly forces to enable the latter to withdraw to another line of defense.

From Napoleon's time up to the outbreak of the last war, the field artillery was organized into the battery (which equals the infantry company), battalion, and regiment. Generally, three kinds of batteries exist, namely: the headquarters battery, the service battery, and the gun or firing battery. The headquarters battery maintains the means of communication in the battalion or higher unit besides taking care of the paper work, while the service battery is charged primarily with the administration of the supply problem of the battalion or higher unit. Of far importance is the firing battery whose personnel operate the guns that deliver the fire.

A typical gun or firing battery of the United States Army before the last war, which has been adopted by our Armed Forces, is composed of the "Firing Battery" of four gun sections (one gun per section); a "Battery Commander's Detail" composed of the "Battery Headquarters," "Instrument Section," and "Signal Section." The battery headquarters takes care of the paper work, supply and messing in the battery; the personnel of the instrument section operates the complicated firing instruments for observation and for gathering the data required to fire the guns accurately; while the signal section maintains and operates the battery's system of communication, including telephones, switchboards, and portable radios. A "Motor Maintenance

Section" comes in only in case the battery is of the motorized type.

A battalion of field artillery consists of one headquarters battery, one service battery, and three or four firing batteries. These batteries which prior to the 20th century were generally designated by the name of the commanding officer, are now designated by letters, "A," "B," "C" and so forth. Three battalions are in turn organized into a regiment.

In accomplishing its mission, it is the general rule that a battery supports a battalion of infantry; a battalion supports an infantry regiment; and the regiment of field artillery supports the division. Since the infantry division as organized before the war had three infantry regiments, it follows that the three battalions in the field artillery regiment can very well give close fire support to the three infantry regiments.

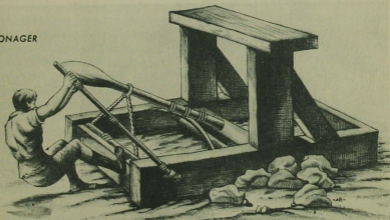
During the war, however, it was found that tactical control of the battalions by the regimental commander was not quite convenient at times, especially when these battalions were supporting infantry regiments that were widely disposed. To meet this problem the field artillery regiment was altogether abandoned in lieu of three independent battalions of light field artillery and one medium field artillery (for general support) as organic units of the division. The administrative control of these four battalions devolves in a division artillery headquarters under a brigadier general. The latter also serves as the artillery adviser to the division commander. The bat-

talion has become today the highest tactical organization of the field artillery in the United States Army, which our armed forces has adopted.

Generally, today, there are two types of field artillery pieces, which are called howitzers or guns. The two have the same rugged construction, equipped with breech mechanism and with riflings in their bores. Their main difference is the fact that guns have relatively longer barrels and are capable of firing high-speed shells that have flat tra-

jectory. For a long time before the war, field artillery have been variously classified on the bases of (1) size and characters of the artillery pieces and (2) means of transporting them. Under the first category there have cropped up such terms as: light artillery; medium artillery; and heavy artillery. Classified under the second category, field artillery was known then as: horse-artillery or horse-drawn artillery; pack artillery; portee artillery; motorized artillery and tractor-drawn artillery. Many of the concepts that used to be asso-

ONAGER



jectory — i.e., the path taken by the projectile from the muzzle of the gun to the point of impact or the point where the projectile finally lands is not so high from the surface of the earth. The howitzers, which have shorter barrels, fire shells of a much lower velocity, with high trajectory. As such, howitzers are capable of lobbing their shells, with less charge, high into the air to fall into trenches or at targets behind hills or sheltered obstacles.

ciated to with these terms have been rendered obsolete by the last war. This is so because of very many changes taking place in both the design of artillery pieces and their peculiar employment. To illustrate this point, before the war a 105-mm howitzer was a medium artillery piece, but under the present standard this is now classified as light artillery.

Likewise, because experience has shown that war shall be conducted

largely on mechanized scale, the latest tendency for the field artillery is to adopt itself to this mechanization. There has now come into the picture the self-propelled artillery which has made possible for the gun to be fired while actually in motion. The principle involved here is the construction of fixed mounts on sturdy armored vehicles which would support the artillery piece. Then too, there has come into the picture, as a result of the war, new and special types of artillery designed purposely for the airborne infantry, the armored force, and the mechanized cavalry.

How well our armed forces can keep with these rapid strides taken in the development of the field artillery would again largely depend on the country's resources. It is imperative that our Armed Forces should at least keep pace with the training program and development of the field artillery of the more progressive armies the world over.

The PA's Field Artillery

Late in 1936, several Filipino officers were detailed in Fort Stotsenburg, Pampanga, a United States Army Post, to train in field artillery. This small group later on became the nucleus of the officer personnel of the Philippine Army's field artillery. At about the same time negotiation was started for the use of a part of the Fort Stotsenburg Military Reservation as a Philippine Army Training Center (PATC) for artillery. Several field artillery materiel — the 2.95 inch mountain guns, 75-mm British guns and 155-mm French guns (GPF's),

signal equipment, and precision instruments were also acquired from the United States Army on loan basis. With this group of officers and equipment becoming available, the Philippine Army's field artillery arm was born.

Camp Dau, which was later on re-named Camp Del Pilar, was built within the Fort Stotsenburg Reservation. In January 1937, the camp was inaugurated under the command of Brigadier General (then Colonel) Fidel V. Segundo, who was then concurrently a member of the General Staff of the Philippine Army. Segundo was a graduate of the United States Military Academy, Class of 1917, with a regular commission in the Field Artillery (PS), United States Army, but at the time he was on special duty with MacArthur's Philippine Military Mission.

From the outset it was Segundo's pet concern to build and elevate the field artillery to its highest standards. Therefore he exerted his utmost energies to make Dau the premier artillery training camp in the Philippines and toward this end he succeeded. General Segundo has been regarded as the "Father of Filipino Field Artillery."

Assisting Colonel Segundo in the tremendous task of building this field artillery arm for the Philippine Army, particularly in the military instruction of the 20-year-old Filipino youth who were slated to take up field artillery training, starting in January 1937, was a group of American officers and Philippine Scout enlisted men,

headed by Major John McDowall, USA, of the 24th Field Artillery, Philippine Scout. McDowall was the first American Senior Instructor for the Field Artillery in Camp Dau.

At the start of the training program these American officers and Philippine Scout enlisted men of the instructional staff were apportioned at a ratio of one officer and ten enlisted men per battery. Eventually, however, as trained men were enlisted for service in the field artillery and as more Filipino officers were trained and commissioned in this arm, the number of American and PS instructors were reduced. Shortly before the war, there was only one American officer instructor per battalion and one Philippine Scout enlisted man to a battery of field artillery.

The training program for the field artillery in Camp Dau was so planned that every training session there were sufficient numbers of trainee graduates, averaging at 1,200 per training session, who could make up the complement of the headquarters, service and firing batteries of the reserve divisions being organized on "paper" in the ten pre-war military districts. This program was given enough impetus so that at the time of the emergency in 1941, there were enough men who could be called to the service for a field artillery regiment in each military district. The main set back of the Philippine Army, however, was the dire lack of equipment which was likewise an experience of the United States Army, under whose command these Filipino field artillery units were to serve.

The Philippine Army altogether mobilized ten field artillery regiments, one to each reserve division, for service with the United States Army Forces in the Far East (USAFFE). The organization of these regiments, however, did not come up to the standard of the United States Army at the time, largely due to the shortage of equipment. A special Table of Organization for the PA's field artillery regiment was adopted shortly after the formation of the USAFFE. This regiment consisted of a regimental Hq & Hq Battery and a regimental Service Battery, and three battalions, each of which consisted of a Hq & Hq Battery, a Service Battery and two firing batteries. One battalion was equipped with 75-mm guns; the second battalion was equipped with 2.95 guns; and the third battalion with 3-inch mortars. On the whole, the regiment lacked firepower for the adequate support of the three infantry regiments of the Division.

As of 8 December 1941, however, only four Philippine Army field artillery regiments were organized with full complements of guns, with deviation from the approved Table of Organization, since there were no mortars available from the Ordnance Section of the USAFFE. These were the following:

- 21st Field Artillery Regiment,
21st Division;
- 41st Field Artillery Regiment,
41st Division;
- 71st Field Artillery Regiment,
71st Division; and
- 91st Field Artillery Regiment,
91st Division.

These regiments were organized with their 1st and 2nd battalions equipped with eight British 75s (4 to a battery), and their 3rd battalion equipped with 2.95 mountain guns.

The 11th, 31st, and 51st FA regiments, belonging to 11th, 31st, and 51st divisions, respectively, which were also in Luzon had enough guns only for two or three batteries although they had the needed personnel. Later on in Bataan, these gunless field artillery units, were to do the unfamiliar job of the infantry.

In the Visayas, as of 8 December 1941, there were the 61st and 81st FA regiments of the 61st and 81st divisions, respectively, but the biggest guns these regiments had were a few .50 caliber machine guns. The 101st FA, whose officers and keymen were still in Luzon at the outbreak of war, was mobilized in Mindanao on 15 December 1941, as an infantry unit. The field artillery officers and keymen for the 101st Division became the nucleus of the famed 301st FA Regiment of sixteen 155-mm (GPFs), which was activated in Luzon shortly after the outbreak of war.

In passing, it is noteworthy that the other field artillery regiments that helped in the defense in Bataan, although regular elements of the Philippine Scout (USA), were likewise manned by Filipino artillery men. These were the following:

- 23rd FA Regiment armed with 2.95s (only one battalion);
- 24th FA Regiment armed with British 75s;
- 86th FA Regiment armed with

155s (GPFs) (two guns to a battery); and the

88th FA Regiment armed with American 75s.

It is likewise a distinct honor of the Filipino artillery men to have manned the first 50 self-propelled artillery pieces manufactured in the United States. These pieces reached the Philippines late in November 1941 and at the outbreak of war were formed into twelve letter-designated firing batteries each with four guns, except Batteries "L" and "M" which were allotted five guns each. The outfit was originally designated as 11th Provisional Brigade. Later on in Bataan it was redesignated into 1st and 2nd Provisional Battalions, Field Artillery (self-propelled mounts). The lessons acquired in the employment of these self-propelled artillery units were later on capitalized by the United States Army in constituting the "Tank Destroyer Force," a distinct branch of the U.S. Army during the war years.

In spite of all their handicaps, and lacking air protection at that, these Filipino field artillery regiments became the mainstay of the USAFFE during the Philippine Defense Campaign. More than once these field artillery regiments beat down the enemy in his many attempts to crush the USAFFE lines during the Battle of Bataan. Without these units, Bataan could not have withstood the repeated Japanese onslaughts. Faithful to tradition, these Filipino artillery men proved the field artillery to be the "Rex Belli" or "King of Battle."

The 15th of November 1945, the

date when Headquarters Philippine Army activated the 2nd Infantry Division out of the famed Volckmann's guerrilla unit — the United States Army Forces in the Philippines, North Luzon (USAFIP, NL) — marked the rebirth of our field artillery arm. The 2nd Infantry Division had its full complement of field artillery, namely: the 21st, 22nd, 23rd, and 24th Field Artillery battalions. These became the nucleus of our present field artillery organization.

The 22nd and 23rd have already been inactivated, but the other two are still intact, although under different nomenclature. These battalions are now charged with the big task of building a new corps of field artillery reservists under Headquarters, Philippine Army Training Center.

The Off-Shore Patrol

The military history of the world cannot be fully appreciated without recalling to mind the doughty seafaring men who had sailed the seven seas in quest of adventure and new lands to conquer. Since earliest recorded time, ships have been associated with a great number of major military operations, utilized either as carrier for troops across the seas or as a striking force. As a matter of fact, in some remote past, there was no distinct demarcation between the military and naval forces of the nation, and, as a general rule, the naval commander was subordinated to the military commander.

The great maritime powers of the ancient civilized world were certain-

ly the first states to maintain naval contingents of their military forces. This was only natural since a naval force was necessary to protect the sea lanes from marauders and sea pirates. In the old western world, Carthage and Rome had been for a long period, the dominating powers. In succession these city states had controlled the Mediterranean Sea.

The point under consideration is the fact that the growth of the naval establishments of these two great sea powers followed closely the general pattern of the growth of their military establishment, and that the former establishments were not separate and distinct from the latter, in contradiction to the army and navy as these organizations are generally understood today. As a matter of fact, the military expeditionary forces of Julius Cesar and Hannibal who were the foremost military personalities of Rome and Carthage, respectively, included naval contingents directly commanded by them. And even as late as the 19th century Napoleon exercised direct control over the military and naval forces of France. Consequently, military history records of the naval Battle of Trafalgar as having been fought between Napoleon and Sir Horatio Nelson of the British Navy.

The rise and fall of nations whose economic existence depended largely on the control of the oceans can be attributed to the strength of their naval forces. After the fall of Rome no naval power came into the world scene until late in the 15th century when Portugal, followed by Spain, became the major naval po-



280mm ATOMIC CANNON

The U. S. Army's newest and biggest artillery piece was recently unveiled at the Aberdeen Proving Ground. It is the 280mm, now popularly called the "atomic cannon." The 280mm is capable of firing atomic projectiles as well as conventional shells. The gun weighs about five tons. The range varies with the type of shell used but it is claimed that it can hurl 11-inch projectiles to a maximum range of 25 miles with pin-point accuracy. The 280mm battery will consist of two of these guns plus eight 5-ton trucks.

wer. For a little over one century Spain dominated the seas, culminating in the decisive defeat of her vast Armada by the English Fleet, in 1588. England had since then become the "mistress of the seas" until in the last World War when the United States in earnest and out of necessity, built the mightiest naval force the world has ever seen.

Normally, as a matter of national policy, the striking and defensive force of a country in the sea reposes in a navy. This is especially true of an island state whose only approaches in the event of invasion is the sea. Today, as in the past, most major powers whose territories border the sea, have concentrated their efforts in developing strong navies. In fact, during the period between the two World Wars, there had been a keen race towards the creation of the more powerful navy among the great naval powers, namely: Great Britain, the United States, Japan, France, and Italy. Germany joined this race rather surreptitiously because of the limitations imposed on her by the Peace Treaty of Versailles which ended World War I. Nevertheless, the showing of the German Navy during the last war was an unmistakable proof that Germany was to be reckoned with as a naval power.

The navy is indeed a very costly arm so that the establishments of navies have been limited to states with considerable material resources. Consider a dreadnaught which cost several hundred million pesos to build, and an aircraft carrier which cost as much. And even the cost of the small PT-boats built of wood-

en hulls, but with highly-powered engines, run to approximately fifty thousand pesos. If the initial outlay in building a navy sounds financially fantastic in relation with the assets of the Philippine Government, the more so when the annual cost of maintenance is taken into account.

Because of its geographical situation it was imperative for the Philippines to have a navy. This was readily perceived in the middle 30's when our national leaders began the tremendous task of establishing the armed forces for the Philippines. And yet much as the need was great, since the navy was desirable, the Philippine Government was not in a position to shoulder the heavy expenditure involved. In fact, the limited finances of the government made the prospect of establishing an adequate defense force for the country rather gloomy. However, into the picture there peep in one bright aspect: the Philippines could capitalize on the rich experience of the major powers relative to the maintenance and employment of the various military units and naval crafts.

At the time when the whole pattern of the armed forces was taking a definite shape, momentous experiments, which would soon affect naval tactics and strategy, were taking place in the Mediterranean. The Italians countered with threat from the English, who had wanted Italy to give up her Abyssinian venture, by launching fleets of small wooden boats which became dubbed as the "mosquito fleet."

(Continued on page 56)