

**Organization of the Line**  
**And Special Troops; Proportion**  
**of the Different Arms**

Course In Organization and Tactics.

Lecture No. 1,

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November 17, 1904.

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# Organization of the Line and Special Troops and Proportion of the Different Arms.

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## LECTURE NO. I.

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The line of the army is made up of those troops that are equipped with weapons to be employed in the direct offensive against the enemy and which take their place in the line of battle.

These troops are the infantry, cavalry and artillery. By a recent enactment of Congress, the engineer troops and those officers on duty with them have been added to the line of our army.

In addition to the troops of the line, there are always other military bodies which accompany the army in the field, either to assist directly in military operations or to provide for the sanitation and supply of the army. These are termed special troops and with us the consist of the Medical and Signal Corps troops. In European armies, it is usual to maintain other special organizations, such as the Military Police, Army Service Corps, etc. In the United States Army, these duties are performed usually by details from the line organized into the Provost guard or by soldiers and civilians employed in the Quartermaster's Department.

The purposes to be subserved by military organization may be divided into two general classes: 1st, those which relate to the employment of the army in battle, and, second, those which relate to its general maintenance both in peace and war.

The first gives rise to what is termed the tactical organization of the army; the second to its administrative or-

ganization. Originally these two forms of organization were often quite distinct; thus, companies and regiments were purely administrative units while battalions were only employed in war. To a greater or less extent, this distinction continues to exist in most armies at the present time, as in the regiment of artillery, and in the heavy infantry regiments of the British army.

It is now recognized that the best organization for an army is that which serves both the tactical and administrative needs, and this is the direction of all modern improvements in organization.

Success in battle being the ultimate object of all armies, and this depending mainly upon the facility with which the army can be commanded and maneuvered on the field, it follows that tactical considerations are of vital importance in determining the organization to be given to the army. It is of course desirable that the arrangement and grouping of the troops should facilitate the important questions of supply, sanitation, etc., but these and all other administrative needs must be regarded as secondary.

Organization, in the most general sense, means the bringing of independent bodies into such interdependent relations with each other as to form a single organic whole, in which all the parts will work together for a common purpose.

As applied to an army, the independent bodies are primarily the individual soldiers, and the tactical purpose to be accomplished by organization is to so bind together the general who commands and the soldier who executes that the whole may act as a unit in accordance with the wishes of the commander;

The manner in which it is sought to bring about this result is practically the same in all modern armies and may be briefly outlined as follows :

First, those individuals who are to use the same

weapons are assembled in small groups and placed under a leader by whom they are trained in the use of their weapons and by whom they are commanded in the fight.

Several of these groups are then united to form a larger group, and these are again combined to form still larger groups, and so on, each unit group and each combination of groups being commanded by a leader who receives his orders from and is subordinate to the commander of the next larger group of which he forms a part.

The system of organization now in use is based on the experience of centuries of warfare. It has been a progressive development, keeping pace with improvements in arms and methods of war and the ever-increasing size of armies.

To a better understanding of present methods, it seems advisable to review briefly this development. Following the downfall of the Roman Empire and for many centuries, thereafter, practically no military organization existed in Europe. While wars were frequent during the middle ages, no permanent armies were maintained and the profession of arms was the occupation of adventurous spirits who were banded together in companies sometimes four and five hundred strong, under the leadership of more or less renowned "captains," and who roamed over the continent finding employment under different kings and princes in their petty wars. Armies were raised only when war was imminent, and were made up in great part of these mercenary bands, in part of national levies, and later of feudal contingents. Companies and regiments were sometimes formed for administrative purposes, but of tactical organization there was none. The battle was a melee and the troops, once engaged **could** only be withdrawn when one side or the other was defeated.

With the collapse of feudalism and the consequent growth of national life, standing or permanent armies began to be maintained. In the beginning, these armies were often made up of the old bands of wandering mercenaries, and

while they were organized into companies and regiments, each company continued to carry its own banner, indicating its real origin, and there was no uniformity either in the strength of the company or regiment.

With the introduction of regular and scientific tactics, which followed as a natural consequence to the standing army, the advantage of bodies of uniform strength became apparent, and battalions and squadrons were introduced as the fighting formations of infantry and cavalry.

Originally, battalions were dense masses numbering several thousand men and containing many regiments. As changes in arms led to the adoption of more extended formation, it became necessary to sub-divide into smaller fractions, and battalions were gradually reduced in size until they became mere fractions of a regiment. Finally, when the advantages, of uniform and permanent organization were more fully understood, regiments were also made of uniform strength and the battalion became a fixed fraction, usually one-half or one-third of a regiment, but still retained its distinct character as a tactical unit ; while for administrative purposes, recruiting, payment, clothing, etc., the regiment was the unit.

About the latter part of the 17th or beginning of the 18th century, brigades, formed of several batalions, were first used; later, divisions, composed of the several arms, were occasionally employed in battle. It was not, however, until the latter part of the 18th century during the wars of the French Republican armies that the division as we now understand it, having its permanent commander and staff and proper proportion of the different arms, became a permanent feature of army organization.

Prior to the introduction of brigades and divisions, the army was merely an aggregation of battalions and regiments. For the battle, the army was formed with an advance-guard a first and second line, and a reserve. It was also divided

into wings, there being distinct commanders for these bodies as well as for the infantry, cavalry, and artillery. The higher commanders were all attached to the general headquarters, and were detailed for these sub-divisions of the army by the day, and there was no bond of union between the general and his command, as there is between a general and his division.

In 1805, Napoleon formed the first army corps, which, because of its utility in handling large armies, was shortly after adopted by the other nations.

Later developments have been the grouping of separate armies under the command of a general-in-chief.

This brings us up to the present time and to a consideration of the armies of today.

The various groups into which an army is sub-divided arrange themselves naturally into two classes : 1st, those groups which are made up entirely of one arm of the service, and which have a certain degree of permanency, as companies, squadrons, battalions, regiments, and 2nd, those groups which are formed by the combination of the several arms, and have a temporary character, . as brigades, divisions and army corps. The lesser groups constitute the special organization of the several arms of the service. The larger groups relate to the organization of armies.

This distinction has been recognized in the preparation of this paper, and the subject is treated under the two sub-heads : "The Special Organization of the Several Arms," and the "Organization of the Army."

Beginning with the company, which is the smallest group of infantry and which has its counterpart in the troop or squadron of cavalry and the battery of artillery, its strength is determined within limits by the requirement that it should be able to act as a unit in the battle under the *direct* command of a single leader. Thus, at the present time, we find companies consisting of from 100 to 125 men led

by a dismounted captain, as in the British Army and the Army of the United States ; and of 200 to 250 men commanded by a mounted captain, as in the Continental Armies and the Army of Japan.

Before the development of the present dispersed order of fighting and when the attack was made by the battalion as a unit in a deep column of sub-divisions, the size of the company was of very little importance from a tactical point of view. In some cases, as in the Army of Frederick, the company organization was entirely ignored in the battle, his battalion of five companies being divided into eight platoons or sections for the purpose of drill and fighting. At this time the company was merely an administrative unit consisting usually of about 100 men.

With the development of the line attack, the difficulties of command were immensely increased. It was no longer possible to handle the battalion as a single unit and its roll in this respect was gradually assumed by the company.

As the new role of the company became recognized, the advisability of adding to its strength and thus increasing its efficiency in independent action became apparent, and it has been steadily augmented until it has attained its present size of 250 men, which is probably a maximum under present conditions of warfare.

The company has, in effect, replaced the battalion as a fighting unit, and the battalion of today is the brigade of the 18th century.

With the development of extended order, the number of men that can be directly influenced by a single leader has rapidly diminished, and while it may be possible for a mounted captain to exercise direct command over 200 dismounted men, he can not exert over all the men, when deployed in extended order for battle, that personal influence and control necessary to give effect to his commands. The company

is therefore sub-divided into several platoons led by lieutenants, the platoons are divided into sections led by sergeants? and finally the sections are divided into squads of eight to twelve men under the charge of corporals, thus carrying out the idea of personal leadership to the last man.

The company is also an important administrative unit. The captain is responsible for the discipline, instruction, supply and general maintenance of his company, and the fighting efficiency of the army largely depends upon the character of his work.

The next larger group of infantry is the battalion? which in the armies of all the great powers contains on a war footing about 1,000 men, and is formed by uniting four strong companies, or eight weak ones, as in the British battalion. The only exception to this rule is found in our own army, where the battalion is made up of 4 small companies and has a war footing of about 500 men.

During the War of the Rebellion, our battalion was in some instances organized as is the British battalion at the present time, that is, of eight small companies aggregating about 800 men, and our experience appears to have been similar to that of foreign armies; the battalion was too large to be handled as a fighting unit and contained too many companies to be treated as a group of separate units. Upon the outbreak of the Spanish War, the battalion was re-established for the infantry but was reduced to four companies numbering about 450 men.

While the battalion may be considered to have lost its function as a fighting unit, it is still referred to by most military authorities as the tactical unit of infantry. Used in this connection, it appears to mean the smallest body of infantry capable of carrying out a definite object in the attack through its several phases.

The term tactical unit as used at the present time is not susceptible of exact definition.

By some authorities it is defined to be the smallest fraction of a body of troops which can fight independently and perform some specific duty, on the battle field, the individual men and horses composing it being personally known to the commander, who must, moreover, be able to direct it by word of command.

By others it is used in referring to *any* tactical group which forms one of the main sub-divisions of a larger group ; thus, the regiment is sometimes called a tactical unit of the brigade, the division, the tactical unit of the army, etc.

Colonel Wagner says, "The tactical unit on which the organization of an army should be based is the largest body of troops that can be directly commanded by a single leader and at the same time be able to appear in close order on the battlefield without quickly incurring ruinous losses from the enemy's fire."

However, most authorities agree in considering the battalion, the squadron, and the battery, as the tactical units of the different arms. Referring to the small size of our company and battalion, as compared with that of all other large armies, I offer the following suggestions :

It is a fundamental principle of tactical organization that the number of independent units in an army or other body of troops should be as few as possible—this, to facilitate the transmission of orders and the execution of commands.

As a corollary to this, it follows, that the strength of any independent unit should be a maximum consistent with the natural limitations of the case. If a mounted officer assisted by four lieutenants can maintain effective control over 200 men in battle, then it is advantageous and economical to have this organization. With this size for the company, the battalion would naturally be 1,000 men, for the battalion commander can handle four companies as readily as the brigade

commander can maneuver four battalions or the division commander several brigades.

On the other hand, the difficulties of command and control are greatly increased with untrained soldiers ; smaller units and a greater proportion of officers are necessary. This would seem to fit our case.

The battalion is not ordinarily an administrative unit, though in the British army it replaces the regiment in this respect. In our army it has not been customary to retain the battalion organization in time of peace, but by the law of March 2nd, 1901, the infantry regiment was organized with three battalions, and an administrative staff consisting of a commissary and quartermaster was assigned to it. To this extent the battalion has become with us an administrative as well as a tactical unit.

The regiment, which is made up of two, three or four battalions, was originally an administrative unit solely, and it still retains that character in the British army, where it has no place in the order of battle. In practically all other modern armies, the regiment is now regarded as an ideal tactical unit. The German Infantry Drill Book very aptly describes the importance of the regiment in the following words ;

“The regiment is, owing to its centralized form, the homogeneity of its staff officers, the number of parts comprising it (three or four battalions) and its historical associations, pre-eminently adapted for executing in a uniform manner any tactical task that may devolve upon it. The regimental system facilitates the tactical co-operation of its component parts and the regulation of the proportion of infantry which it may be desirable to employ in the first line.”

To which I may add, that the regiment is to the officer what the company is to the soldier, “his home,” and the spirit of comradeship developed by association in time of

peace proves the strongest tie in holding the regiment as a unit in the fight.

In foreign armies it is usual to maintain a depot battalion in each regiment. In peace time, this battalion exists in skeleton form, but when war breaks out, it is officered and becomes the recruiting depot for the regiment. This was attempted for the regiments on foreign service in our army in 1889, but the exigencies of the service caused it soon to be given up. It is probable that under more favorable circumstances it would be adopted.

In the cavalry the squadron is the basis of tactical organization and in practically all armies but our own it has a war footing of 150 to 175 men.

Marshal Marmont writing on this subject more than half a century ago said :

“The fighting unit of cavalry is called a squadron and the rule for determining its strength, is, to unite the greatest mobility with maintenance of order. A squadron having too great a front would easily be thrown into disorder by the slightest obstacle and every troop in disorder is half conquered. Experience proves that the best formation, that which most completely unites strength and consistence with great facility of movement is a squadron of 48 files (96 men), divided into sub-divisions of twelve files each. The inconsiderable number of men and horses permits that arrangement in the cavalry which would be impossible in the infantry, that is, the fighting unit is the same as the unit of administration.”

Our own cavalry has at different times been organized as here outlined; the last time in the War of the Rebellion when the cavalry regiments were formed of three battalions of two squadrons of two companies each, making six squadrons of 150 men to the regiment. After the war the present organization of three squadrons to the regiment was

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adopted, probably to conform to the infantry organization.

In foreign armies the squadron is both a tactical and administrative unit ; it is usually commanded by a major with a captain second in command and is subdivided into several troops commanded by lieutenants. With us the troop of 100 men is the administrative unit. The cavalry regiment abroad is made up of from 3 to 7 squadrons, one of which is usually a depot squadron.

The battery of 6 guns is the basis of 'the tactical organization of the Field Artillery.

With the advent of the Rapid Fire Field Gun it is probable that the battery will be reduced to four guns, This reduction has already been made in our service by a, recent executive order, and is made advisable by the increased difficult& of regulating and controlling the fire of guns which can deliver twelve aimed shots per minute as compared with the old gun having a capacity of only two or three rounds, moreover the increased consumption of ammunition will demand additional ammunition wagons and teams and will add materially to the personnel of the battery.

Two or more batteries working together under one command constitute the battalion of artillery. Our battalion of three batteries corresponds to the "British Brigade Division," the Battalion organization: now existing in our field artillery is purely for purpose of instruction and administration. The regiment of artillery recently abolished in our service but still retained in many foreign armies is an administrative unit solely.

By the re-organization act of 1901, machine gun batteries are declared to be part of the field artillery though no tactical organization for machine guns has yet been adopted.

The tactical use of machine guns is, at present, in an experimental stage. The British have organized their machine guns into sections, which they have attached to the

Infantry and Cavalry Brigades, and this is the direction of our experiments at this time,

### ENGINEERS,

In the United States Army the Engineer troops accompanying the army in the field perform the duty of sappers, miners, and pontoniers. In most European armies they are also charged with the duties of signaling and in some instances they have the additional duty of the management of the railroads within the theatre of operations. Engineer troops are organized into companies, battalions and regiments in the same manner as infantry. The strength of the company varies with the particular character of work it is intended to perform, and usually contains from 250 to 500 men. It is probable that our regular Engineer troops will shortly be organized into companies of pioneers and pontoniers.

The pioneer company to consist of 165 men, 25 of whom shall be mounted, and the company to be equipped with intrenching tools and explosives. The Ponton Company, to consist of 150 men, 5 non-commissioned officers being mounted. The companies are united into battalions composed of three pioneer and one pontoon company. When serving with the cavalry the engineer troops will be mounted.

In the United States Army it is usual to supplement the regular force by details from the line of selected individuals, or by transfer of entire organizations. Both of these methods were pursued in the war of the Rebellion, but upon the outbreak of the Spanish war special enlistments of trained mechanics were made and they were organized into a brigade of three regiments equipped as infantry.

### SIGNAL CORPS.

The Signal Corps is charged with the management of the field telegraph and telephone, the military balloons and the service of signally generally. For service in the field

signal troops will be organized into companies of 150 men, who will be mounted when serving with the cavalry.

These signal companies with us correspond to telegraph Sections of the engineer companies in foreign armies.

### MEDICAL, CORPS;

In all modern armies there is provided for the army in the field a complete sanitary organization which usually comprises detachments of hospital corps attached to batteries, battalions and regiments, Field Hospitals, including a bearer and ambulance section for collecting the wounded and conveying them from the dressing stations to the field hospitals. An advance medical supply depot which accompanies the first line of supply; the hospital transport, railway trains, hospital ships, etc.,- by which the sick and wounded are conveyed to hospitals along the line of communication or to the base, and finally, the base hospitals and convalescent camps;

This completes what might be termed the special organization of the several arms and we have now to consider how these squadrons, battalions and regiments shall be assembled to form an army.

### ORGANIZATION OF THE ARMY.

In the organization of an army the main points to be determined are :

What shall be the size of the army.

What shall be the proportion of the different combatant arms and special troops, and how shall they be combined, and, finally, what shall be the primary sub-divisions of the army.

When We come to consider the proper strength of an army we find a general concensus of opinion among military writers, supported by the practice of nations, that a single army should not exceed 150,000 fighting men. Experience has demonstrated that very large armies have less cohesion and flexibility than smaller ones and that the rapidly increas-

ing difficulties of command soon tax the ability of the average leader. Larger armies have many times been formed but usually under force of circumstances and to meet exceptional conditions. . Where the force put in the field exceeds this number it is customary to divide it into two or more separate armies and where these separate armies have the same objective, to combine their operations under a general in chief. This principle of the division of large combatant forces into several armies has been exemplified in all recent campaigns, was practiced by both the North and South in the Rebellion, and is now being carried out in the Japanese Army in Manchuria.

#### PROPORTION OF THE DIFFERENT ARMS.

In determining the proportion of the different arms that shall go to make up the army we find that there is no fixed rule. In a comparison of many field armies of the past century, if the infantry be represented by unity, the cavalry has varied usually from 1-4 to 1-10, while the artillery varies from 2 to 5 guns per thousand combatants, and even these limits are often exceeded.

In Johnston's army during the Atlanta Campaign there were 144 guns to 53,000 men, or from 2 to 3 guns per thousand, while the cavalry was from 1-4 to 1-5 as numerous as the infantry. In Sherman's army at the same time the cavalry was 1-7 as strong as the infantry and there were about 2 guns per thousand. At a later period, during the march to sea, the guns were reduced to 1 per thousand and the cavalry to 1-15 of the infantry.

In the Union army at Gettysburg the cavalry was almost 1-5 and there were from 2-3 guns per thousand. These proportions were about the same in the Confederate Army. The act of congress of July, 1861, providing for the mobilization of 500,000 volunteers directed that not more than 1 com-

pany of cavalry or artillery should be raised to every regiment of infantry.

Actually there were organized on the Union side during the war 1700 regiments of infantry, 272 regiments of cavalry and 78 regiments of artillery.

According to Napoleon the cavalry should be from 1-4 to 1-5 as numerous as infantry, the artillery 1-8, the engineers, 1-40 and the train 1-30.

In the Second German Army in 1870, which numbered 250,000 men, the cavalry was between 1-5 and 1-6, the artillery from 1-7 to 1-8, the engineers about 1-22, the train 1-13 and the sanitary troops 1-25.

Applying these general averages to a particular case an army of 100,000 men might be composed as follows:

|                        |        |          |
|------------------------|--------|----------|
| Infantry, .....        | 65,000 |          |
| Cavalry, .....         | 12,000 |          |
| Artillery, .....       | 9,000  | 300 guns |
| Engineers, .....       | 4,500  |          |
| Signal Troops .....    | 600    |          |
| Sanitary Troops, ..... | 4,000  |          |
| Train, .....           | 5,000  |          |
|                        | <hr/>  | <hr/>    |
| Total                  |        | 100,100  |

The relative numbers of the infantry, cavalry and artillery will vary with many conditions, principally however with the character of the country in which the operations are to be conducted, the composition of the enemy's forces, and the adaptibility or otherwise of the people for a particular arm.

In a difficult mountainous country having few roads, the cavalry and artillery would find little scope for their operation and would be proportionately diminished. On the other hand in an open country against a mounted enemy a

large proportion of cavalry and artillery is needed. The influence of conditions of this character on the composition of an army was very markedly shown in the war in **South Africa**.

General Kitchener testifying before the Commissioners on the conduct of the war, said :

“Except in Natal, and even there to some extent, the infantry were at a great disadvantage against mounted enemies, and for this reason in the latter part of the war all operations were carried out on the British side by mounted men,

Lord Roberts, testifying before the same Commission. said :

“What I think is that in all future wars -we should require a far larger proportion of mounted men than we have ever had hitherto and that the cavalry must be prepared to fight on foot much more than they have ever done before.”

In the Japanese' army in Manchuria at the present time the cavalry forces is insignificant, This is due to the fact that the Japanese are indifferent horsemen and there are few, if any horses in Japan fit for cavalry service.

Having determined upon the strength of the army and the proportions of the different arms, the next question to be decided is the manner in which the several arms shall be distributed in forming the higher tactical units of the army. Whether for instance fractions of the army shall be made up entirely of cavalry and artillery, others of infantry only, or whether the cavalry, artillery and infantry should be distributed uniformly among the main subdivisions according to their strength.

Until the latter half of the 19th century it was the usual practice to form a large part of the artillery and cavalry into reserves, which were held in rear of the army and under

the immediate command of the general commanding. This frequently resulted in withholding just that much cavalry and artillery from the fight and history contains many instances of lost opportunities due to the impossibility of getting these reserves into action in time to be of any use.

These reserves have now practically disappeared. The cavalry has found its proper place in front of the army instead of in the rear and the artillery is gradually moving up to the line of battle ; the artillery reserve gave way to the corps artillery, which is in effect *but* a smaller reserve, and this in turn is about to be absorbed into the divisions.

Following the developments of the war of the Rebellion, and the Fran&Prussian war, it is now generally recognized that the most advantageous use of cavalry is in screening the movements of our own army and gaining intelligence of the enemy. To do this effectively, the cavalry must operate well in advance of the main body and its movements will to a great extent, be regulated by those of the enemy.

It must therefore be independent. These considerations lead to but one conclusion, the principal part of the cavalry must be organized into independent bodies under their own leaders, only so much cavalry being assigned to the infantry divisions as is necessary for their immediate security.

In fixing the size or strength of these independent cavalry bodies we are influenced by several considerations. Experience in past wars has demonstrated that very large bodies of cavalry are difficult to handle and supply and moreover they lack the mobility and cohesion of smaller bodies. Marmont, whose ideas are always carefully considered, says :

“I place at 6 thousand horse the utmost force of cavalry manageable.”

During the Napoleonic wars great masses of cavalry were frequently used. In the grand army which invaded Russia, Murat commanded a cavalry reserve of 4 corps,

numbering 40,000 men. This use of cavalry has now practically disappeared and it is rare indeed to find 10,000 cavalry in one body. During the War of the Rebellion the largest body of cavalry united under one command was 13,000—the cavalry corps of General Wilson in 1865. The present tendency is still further to reduce this strength and the cavalry is now usually organized into divisions of about 3,600 men. This was the organization of the German Cavalry in the Franco-Prussian war and the British Cavalry in South Africa.

This is also the organization proposed by our Field Service Regulations, though our cavalry division has a strength of 9,000 men. Our Brigade corresponding to the European Division. It may therefore be accepted that the cavalry corps will rarely be organized in future and that the cavalry will be organized into divisions and placed under the orders of the army commander.

The present accepted role of cavalry, that of acting as a screen to the movements of the army will often take it many miles in front of the main body and if it is not to be held back by small detachments of the three arms, its power of resistance must be increased. It is therefore usual to assign to each division of cavalry several batteries of horse artillery. In European Armies, Infantry in wagons sometimes accompany the cavalry division.

## ARTILLERY.

When we come to consider the proper grouping of the artillery a different course of reasoning prevails. While artillery produces its greatest effect by the concentrated fires of many guns and we read of immense groups of from twenty to thirty batteries in action under one command, as at Gettysburg, and at Worth and Sedan ; yet, if the artillery occupied its place in column in large masses of this size it would often be difficult or even impossible to find suitable positions

for its employment and much of the artillery would be kept out of the fight, or would have to be distributed along the front of the battle. It is therefore better to distribute the artillery in groups of not more than 8 or 10 batteries among the infantry columns where it marches near the head of the columns ready to come quickly into action. Provision being made to form larger groups under a single command when the favorable opportunity arrives. This increased distribution of the artillery is also favored by the great range of the modern field gun, which makes it possible to concentrate the fire of widely separated batteries on a single objective and by its increased mobility which enables the batteries to concentrate rapidly when desired.

At an earlier period when the field gun had a comparatively short range and was difficult to move from place to place on the field, it was perhaps necessary to keep the artillery massed in reserves if its fire was ever to be concentrated on a single point.

Turning now to the infantry which, under modern conditions of warfare is by far the most numerous and most important arm of the service, it is with the proper grouping of this arm that Army organization has mainly to do,

The theory of the formation of the modern army is that: it shall consist of several fractions or units, equal in size and composition, complete in all parts and able to act independently at any time. It is by this arrangement that the army is rendered flexible, thus, it may be moved in several columns on parallel roads and if any column be attacked it will be able to maintain itself until supported by the others; or, if it be necessary to detach a portion of the army, it will not be necessary to gather together infantry, cavalry and artillery and create new staff-s, etc.

This fraction or unit is the division, sometimes called the infantry division, and of which Napoleon said "It should be

able to fight unsupported for at least an hour." Modern opinion puts it at about 12 to 16 thousand infantry, somewhat more than the Emperor was accustomed to give it. Such a force will have a battle front of from 2 to 4 miles and its length in column will be such that it can. deploy for action within 3 or 4 hours.

In order that the division may act thus independently it is necessary that it be provided with cavalry and artillery and a proper proportion of special troops ; also a supply train carrying a reserve of ammunition and food and a complete military and administrative staff .

To facilitate the exercise of command and to give greater flexibility, the infantry of the division is subdivided into several brigades of 2 or 3 regiments each.

The following is the proposed organization of the Division in the United States Army.

3 brigades of infantry,  
 1 regiment of cavalry,  
 6 batteries field artillery,  
 3 batteries horse artillery,  
 1 battalion of engineers,  
 1 company signal corps,  
 4 field hospitals.

1 ammunition column, composed of three sections of 21 wagons each for small arms ammunition, and 2 sections of 21 wagons each for artillery ammunition stores.

1 supply column, composed of 3 wagon trains of 27 wagons each, and 1 pack train.

When the army consists of 100,000 men or more, the divisions are assembled into army corps ; *this* on the principle that 5 or 6 independent units is as many as' one commander can efficiently manage. In an army of 150,000 men there would be 10 such units, it is therefore better to organize the army in 4 or 5 corps each containing several divisions.

There is universal agreement that the army corps should not exceed about 30,000 fighting men. A body of troops of this size would occupy about 15 miles in column of route and would require an entire day to deploy for action,

When the army corps is created, it, in many cases replaces the division as the unit of organization and the amount of Cavalry, Artillery and special troops with the division is proportionately diminished ; the troops withheld from the divisions being united to form the Corps Cavalry, the 'Corps Artillery, the Corps Administrative Troops, etc.

This is the case in many European Armies where the corps organization is maintained in time of peace,

In such cases we find the division usually constituted as follows :

- 2 brigades of infantry,
- 1 to 4 squadrons cavalry,
- 4 to 6 batteries of artillery,
- 1 company of engineers,
- 1 bearer company,

In either case however, whether the corps is the unit of organization having its own corps troops,' or whether it is merely an aggregation of divisions, the total strength of the corps remains about the same.

Where the army corps is the unit of organization, if it be necessary to detach a division, a proportion of the corps troops, cavalry, artillery and administrative troops are attached to it and it becomes the re-inforced infantry division similar in strength and composition to the division proposed for our army by the field service regulations.

Finally, when several army corps are united under a single chief they constitute an army. One or more cavalry divisions usually form part of such an organization.

With every military unit larger than a company there is

a staff of commissioned officers whose number and rank increase with the size of the command, No mention of the staff has been made in this paper today as its organization and duties are to be treated of in a lecture at a later date.

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Nov. 17, 1904.

*“Whatever arguments may be drawn from particular examples, superficially viewed, a thorough examination of the subject will evince that the art of war is both comprehensive and complicated; that it demands much previous study, and that the possession of it in its most approved and perfect state is always of great moment to the security of a nation.”*

**WASHINGTON'S LAST ANNUAL MESSAGE.**