

THE THREE INFINITIES.

BY WILLIAM SHARP.

THE vast remote blank darkness of the skies,
Where Silence foldeth the immortal chime
Of wheeling stars in awful companies,
White whispers on the lips of ancient Time:

The hollow waste of the unfathom'd deep
Where no sound is, and light is but a gleam
Lost in dim twilight shades, where never creep
The dying rays from daytide's golden dream:

The dark, obscure, mysterious human heart,
Where fierce tides ebb and flow for evermore,
Where thoughts and dreams and hopes forever part
For ruin or haven on some unknown shore—

O vast abysm, more deep than starry night,
More awful than the mid-sea's soundless might!

THE GERMAN ARMY OF TO-DAY.

BY LIEUTENANT-COLONEL EXNER.

I.—MILITARY CONSTITUTION OF THE GERMAN EMPIRE.

AFTER the close of the war of 1870-1, from which Germany came forth as a national unity, it was desired that visible expression should be given to the latter by a uniform organization of the German military forces. The necessary provisions have been embodied in the Imperial Constitution of April 16, 1871.

Its first article provides that all German states shall constitute a federal territory under the name of the "German Empire," over which the King of Prussia presides as "German Emperor." The Emperor has the power, in the name of the empire, to declare war and to conclude peace, a declaration of war, however, being subject to the consent of the Federal Council, composed of representatives of the members of the federation, except in case of an invasion of the territory of the federation or its coasts.

The entire land forces of the empire form a union army under the command, in war and in peace, of the Emperor, who has the power and whose duty it is to see to it that every part of the army is complete in numbers and in fighting trim, and that uniformity is established and preserved as to organization and formation, armament and equipment. The Emperor also regulates, by way of impe-

rial legislation, the active strength, formation, and distribution of the several contingents composing the imperial army.

In conformity with the treaty of federation of November 23, 1870, the above-cited provisions do not apply to Bavaria, the Bavarian troops, however, being pledged to render in war-time unconditional obedience to the orders of the commander-in-chief of the federation. The Bavarian army, therefore, forms a distinctive contingent of the imperial army, with an entirely independent administration. While her army budget is not submitted to the consideration of the Reichstag, Bavaria has pledged herself to expend for her army the same amount proportionally as is *per capita* appropriated by federal legislation for the remainder of the federal army. Regarding formation, strength, armament, and equipment, the Bavarian army corps are perfectly assimilated to the other army corps.

Unless otherwise provided by distinctive conventions, the reigning princes of the federation appoint the officers, and are themselves the chiefs of the military contingents belonging to their own territories.

The military relations of the several states are regulated by distinctive conventions. While Saxony and Würtemberg put up an army corps each for her-

self, the other contingents are amalgamated with the Prussian army.

All expenses for army purposes are included in the budget for the maintenance of the empire, and any savings made on army appropriations do not revert to the different states, but invariably to the imperial treasury.

While the most important provisions of the military constitution are thus contained in the constitution of the empire, additional provisions, such as to the strength in peace-time—that is, the number of men actually kept under arms and forming the peace army, their organization and completion, discharge from service, and service relations of those absent on furlough—are contained in the military law of the empire of May 2, 1874, which has been repeatedly amended in the course of time. By its original provisions the peace strength was placed, up to December 31, 1881, at 401,659 non-commissioned officers and men (not including officers and one-year volunteers); this number was increased, after April 1, 1881, to 427,274; after April 1, 1887, to 468,409; and after October 1, 1891, to 486,983 men. Adding to these 22,000 officers, surgeons, and bureau officials, and also 7000 one-year volunteers, we have a total strength of 516,000, which is still 30,000 less than the force which the French Republic deems absolutely necessary to keep constantly under arms.

In reference to distribution and organization of the imperial army, the amendment to the military law of the empire passed January 27, 1890, provides that an army corps shall be formed of two or three divisions, with the corresponding artillery, pioneer, and train formations, and that the entire land forces of the German Empire shall consist of twenty army corps, of which Bavaria furnishes two, Würtemberg and Saxony one each, while Prussia, together with the remaining states, puts up sixteen army corps. For military purposes the territory of the empire is divided into nineteen corps districts (*Bezirke*), the Prussian guard corps recruiting throughout the whole Kingdom of Prussia.

A comparison of the peace strengths of the armies of the Continental powers of Europe shows that Germany stands but third on the list, and keeps a smaller number of men under arms than either Russia or France, while it has a strong-

er peace army than Austro-Hungary or Italy. The number of troops kept in active service by the above-named powers in time of peace is shown by the following exhibit, giving the different figures for October 1, 1890:

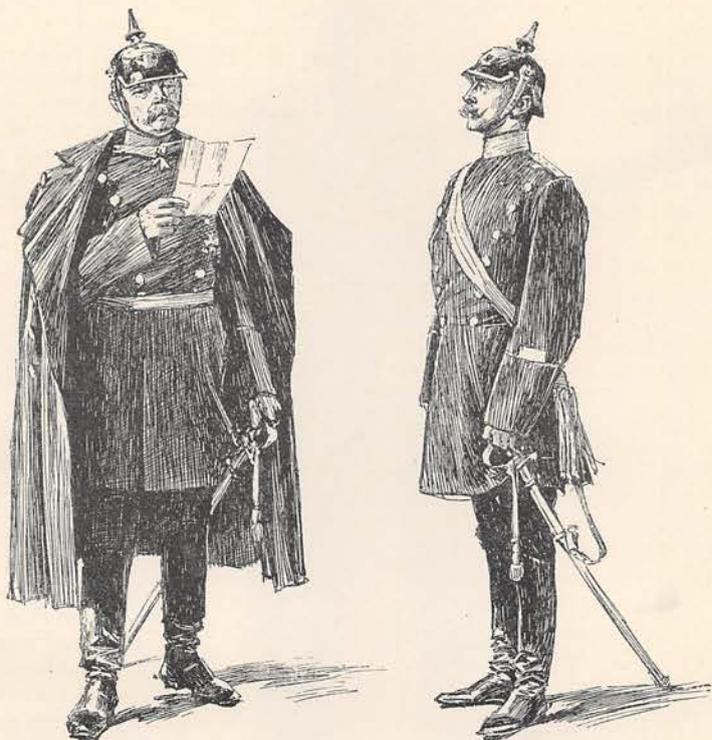
	Battalions Infantry.	Squadrons Cavalry.	Field Batteries.
Russia	1029	687	405
France.....	561	420	480
Germany.....	538	465	434
Austro-Hungary.	458	252	241
Italy.....	346	144	207

II.—LIABILITY TO SERVICE.

Every German is liable to service, and in the performance of this duty no substitute is allowed. By adhering to this principle, which has sprung up in Prussia under the necessities of a grave time, but was accompanied by brilliant success, a people's army has been created in the truest acceptance of the term. Exempt from compulsory service are only the members of the reigning or formerly sovereign houses, to whom this exemption has been secured by distinctive treaties, who, however, without exception, deem it proper to enter the army.

The liability to service commences with the completion of the 17th year, and ends with the 45th year of a man's life. The time is divided between service in the ranks and in the defence of the country (*Landsturm*). During his liability to service every German has to serve in the ranks, generally from the 20th year of his life up to the 31st of March of that calendar year in which he attains the age of 39. This period is subdivided into active service in the ranks, the *Landwehr*, and the *Ersatz* reserve. All liable to service, but not enrolled for active duty in the ranks, are subject to *Landsturm* duty. Unqualified for duty are those not capable of bearing arms or undergoing the hardships connected with the military profession; all criminals are excluded from the honor of belonging to the army.

During the time a man belongs to the army he serves 3 years in the ranks, 4 in the reserve, then he belongs for 5 years to the first levy of the *Landwehr*, up to his 39th year to the second levy of the *Landwehr*, and finally up to his 45th year to the *Landsturm*. The time of active service in the ranks is reduced to one year in the case of young men of education and means, who bear all expenses of



GENERAL AND STAFF-OFFICER.

clothing, equipment, and support, and pass a certain examination; also in the case of graduates from teachers' seminaries, who in the interest of public education may be allowed to pass into the reserve after a short instruction in the usage of arms, generally confined to a period of only six weeks.

Not all the men, however, enrolled for three years' active army service are kept continually under arms for this whole period. As the strength of any troop must under no circumstance be exceeded, and the number of recruits is generally larger than the number of men whose regular term expires, a select number of such men as excel in conduct and training receive their discharge in the second year at the close of the fall manœuvres, and are placed at the disposal of their troop.

The Ersatz reserve is made up of such as have not been enlisted, either because of being above the required number of men, or of having been found only conditionally fit, owing to some physical infirmity. The term of service in the Ersatz reserve is 12 years, after which these men are subject to Landsturm duty up to their 45th year. They may be called out in case of mobilization, or in order to fill up the army, and for the formation of depot troops (Ersatz Truppen). The duty of the Landsturm, finally, is to take part in the defence of the country. The Landsturm is called out by imperial order.

Voluntary entry into the army is permitted at the age of 17 years; these young men have the privilege of choosing their own garrison and troop. Some regiments recruit chiefly from such vol-



JÄGER.

unteers, as, for instance, the Ziethen Hussars.

The number of recruits to be raised every year is determined by the Emperor according to the demands made by the different parts of the army, and this number is apportioned among the several states of the federation in proportion to their population. Recruits are generally enrolled in the same army corps district in which they are raised. An exception from this rule is made in the case of the Prussian guard corps, which is recruited throughout all Prussian provinces and Alsace-Lorraine, and to which are assigned recruits of superior personal appearance and behavior. The recruits raised in Alsace-Lorraine are at present assigned to Prussian regiments.

The entire forces of the reserve, Ersatz reserve and Landwehr, continue beyond the term of their active service to be sub-

ject to the control of their respective district commanders, so that the abode, occupation, and number of men on leave residing in any one district can be ascertained at any time. The reservists have to take part in two field exercises of 8 weeks' duration each, the Landwehr men of the first levy in two of 2 weeks' duration each. Neither the Landwehr of the second levy nor the Landsturm is called out in times of peace. Those assigned to the Ersatz reserve have to participate in three exercises covering together a period of 20 weeks.

The institution of the one-year volunteers, originally introduced in Prussia, and afterwards adopted by all large armies of the Continent, requires some remarks explanatory of its importance and peculiarity. The reduction in the active army service from three years to one implies unquestionably a privilege for certain classes of the popula-

tion which is not otherwise recognized in the organization of the German army; yet it is just as unquestionably in the interest of the people that the studies of those striving for a higher standard of learning in the professional branches should not be interrupted by a full term of three years.

A young man may be enlisted as one-year volunteer either upon passing a scientific examination, or by producing a certificate of maturity issued by one of the specially authorized educational institutions attesting his qualification for one of the upper classes of a high school or college. The one-year service may be rendered in the ranks of any troop of the choice of the volunteer, or among the pharmacists of the sanitary corps. Medical students desiring to enter the sanitary corps have to serve six months under arms, and after their graduation six



INFANTRY IN MARCHING ORDER.

months more in the capacity as non-commissioned or under surgeon. Having afterwards been elected military surgeons, they may be passed into the reserve. All other one-year volunteers, so far as they are qualified by general education, military ability, and zeal, are trained for the rank of officers of the reserve or Landwehr. They receive accordingly particularly careful instruction, both theoretical and practical, and at the close of their term of service, and upon passing the officers' examination, they are assigned to the reserve as reserve officer *aspirants*. As such they have to render active service in two exercises of 8 weeks' duration each, for the purpose of further training for the rank of officer. The appointment to this rank depends, firstly, upon the civic occupation of the applicant, which must command a respect corresponding to that due the rank of an officer; secondly, upon an election by his comrades.

The expenses connected with the service of one-year volunteers are by no means inconsiderable, and may be estimated at 1500 marks in the infantry, and from 1600 to 2000 marks in the cavalry and field artillery, as service in the latter arms requires extra contributions for the use and maintenance of the troop horses. In exceptional cases, and on proof of indigency, a few one-year volunteers may be supported at public expense, and allowed to lodge in the barracks.

III.—COMPOSITION OF THE ARMY.

A.—THE WAR MINISTRY.

The executive organs of the administration of the army are the War Ministries at Berlin, Munich, Dresden, and Stuttgart, for the Prussian, Bavarian, Saxon, and Würtemberg contingents, headed each by a general officer of superior rank as War Minister. The War Ministries regulate and conduct all affairs regarding the completion, maintenance, armament, and administration of the military forces and war materials. There is no War Ministry of the empire, all orders of the Emperor, as well as newly prepared or altered regulations, being conveyed through the Prussian War Ministry to the War Ministries of the other states, by which they have to be put in force in their armies. The Prussian War Ministry at Berlin, having a

personnel of 390 officers and officials of every rank (in the French War Ministry more than 800 officers and officials are employed), is, therefore, the centre from which issue all measures of organization and administration. Its work is divided among the Central Department; the General War Department, comprising the army, fortification, and foot and horse divisions; the departments for financial management, invalids, and armament, and the supply and medical divisions.

Besides, there are a number of other boards and institutions under immediate orders of the War Minister, who has also to represent the army in the Reichstag.

B.—THE MILITARY CABINET.

In Prussia all affairs relating to the *personnel* of officers and military officials are attended to by the Military Cabinet, which is placed directly under the Emperor, and forms a distinctive division of the War Department. Its chief is the Adjutant-General of the Emperor and King; he has to submit to the decision of the supreme commander all matters relating to appointments, promotion, and discharge of officers, also applications for pardon made by military persons.

C.—THE COMMISSION FOR THE DEFENCE OF THE COUNTRY.

This commission has to examine into and consider all questions touching the erection, completion, or abandonment of forts, as also all more important questions of organization and training. It receives its orders from and reports to the Emperor directly. After his retirement from the position of Chief of the General Staff, General-Fieldmarshal Count von Moltke was placed at the head of this commission. His successor is General-Fieldmarshal Prince Albrecht of Prussia, Regent of the Duchy of Brunswick.

D.—THE GENERAL STAFF.

The Chief of the General Staff of the Prussian army occupies an independent position, co-ordinate to the War Minister, and responsible for the conduct of his office to the Emperor directly. He is assisted by three Quartermasters-General, who, in case of war, are appointed chiefs of the general staffs of the chief commanders of armies. There is no exclusive corps of general staff officers, these



UHLANS.



UHLAN TRUMPETER.

being selected from the standing army, into which they return after a number of years' service on the general staff.

In the field the general staff has to attend to all matters touching the movement, quartering, and engagement of troops, and to the drawing up of orders. The officers of the general staff are the assistants of the generals commanding to whom they are assigned. They must be possessed, besides clearness of thought and perspicuity of expression, of the gift of quick conception, of indefatigable working faculties, and of a high degree of military training. Their duties are

extensive and arduous, but of a thankful character.

In peace the majority of general staff officers are engaged at work at the Great General Staff of the army at Berlin, which is divided into a department of military history, four departments for the study of foreign armies and seats of war, and the railway division. On the last devolves the disposition of all matters relating to the use of railways by military forces. The remainder of the general staff officers are detailed to the army corps and divisions. A special branch of the Great General Staff is serving purely scientific purposes. Under the immediate supervision of the Chief of the Great General Staff are placed the Railway Brigade, the survey of the empire—comprising the trigonometrical, topographical, and cartographical divisions—and the War Academy at Berlin. Into the last, officers especially recommended for ability and zeal are admitted after passing an appropriate examination. During a course lasting three years they receive a careful training in the military and auxiliary sciences, which qualifies them afterwards for appointment on the general staff as aides-de-camp or teachers. The attendance at this academy is, however, not an indispensable condition for admission to the general staff. The number of officers detailed to the latter is about 300.

Bavaria has her own military academy at Munich; Saxon and Würtemberg officers participate in the course of the Prussian academy.

The Chief of the Great General Staff of the army is General Count von Schlieffen, who in February, 1891, succeeded Count von Waldersee, who had, in 1888, been promoted to this eminent position as successor of General-Fieldmarshal Count von Moltke, to whose genius the army owes the splendid organization of this training-school for superior army officers.

E.—THE MILITARY INTENDANCIES.

Upon the military intendancies devolves the duty of regulating all matters relating to the maintenance, payment, and quartering of the troops. In war they have also to provide for food, either through organized conveyance from home, or by off-hand purchases, or, in case of necessity, by requisition.

F.—DISTRIBUTION OF THE IMPERIAL ARMY.

The army of the German Empire consists, as mentioned before, since April 1, 1890, of 20 army corps. With a few exceptions, the troops of an army corps are garrisoned within the army corps district, and complete themselves from the latter. The Prussian guard corps has no corps district of its own, and is recruited generally throughout the monarchy. The

army corps in Alsace-Lorraine receive their complement chiefly from other sections of the empire, while the recruits raised there are distributed among regiments of other corps districts. With the exception of the guard and the two Bavarian army corps, all other army corps are known by continuous numbers from 1 to 17. Their principal forces are stationed and headquarters located as follows:



Thalberg

DRAGOON.



HUSSARS.

GUARD CORPS (BERLIN) AT BERLIN AND SURROUNDING TOWNS.

- | | |
|---|---|
| 1. Army Corps (Königsberg) East Prussia. | 8. Army Corps (Coblenz) Rhine Province. |
| 2. " " (Stettin) Pomerania. | 9. " " (Altona) Schleswig-Holstein, Mecklenburg-Schwerin, Mecklenburg-Strelitz, free cities of Hamburg, Lübeck, and Bremen. |
| 3. " " (Berlin) Brandenburg. | 10. " " (Hanover) Province Hanover, Oldenburg, Brunswick. |
| 4. " " (Magdeburg) Prussian Province, Saxony. | 11. " " (Cassel) Province Hesse-Nassau, and the Grand Duchy of Hesse. |
| 5. " " (Posen) Province Posen. | |
| 6. " " (Breslau) Silesia. | |
| 7. " " (Münster) Westphalia. | |

12. Royal Saxon Army Corps (Dresden), Kingdom of Saxony.
13. Royal Württemberg Army Corps (Stuttgart), Kingdom of Württemberg.
14. Army Corps (Karlsruhe) Grand Duchy of Baden.
15. " " (Strassburg) Alsace.
16. " " (Metz) Lorraine.
17. " " (Danzig) West Prussia.
1. Bavarian Army Corps (Munich) Bavaria.
2. " " (Würzburg) Bavaria.

In peace the army inspections are formed by the different corps, as follows:

The 1st, 2d, 9th, 10th, and 17th army corps form the 1st Army Inspection, at Hanover.

The 5th, 6th, and 12th army corps form the 2d Army Inspection, at Dresden.

The 7th, 8th, and 11th army corps form the 3d Army Inspection, at Darmstadt.

The 3d, 4th, 13th, and the two Bavarian army corps form the 4th Army Inspection, at Berlin.

The 14th, 15th, 16th, and 17th army corps form the 5th Army Inspection, at Karlsruhe.

The army inspectors are:

For the 1st Army Inspection, General-Field-marshal Prince Albrecht of Prussia.

For the 2d Army Inspection, General-Field-marshal Prince George of Saxony.

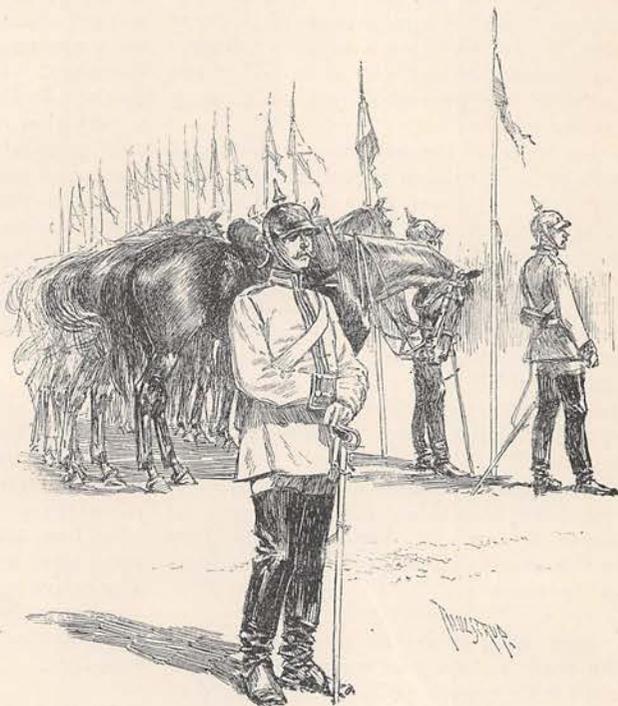
For the 3d Army Inspection, Grand Duke Ludwig of Hesse.

For the 4th Army Inspection, General-Fieldmarshal Count von Blumenthal.

For the 5th Army Inspection, Grand Duke Friedrich of Baden.

An army corps is headed by the general commanding, who has charge of all the troops and of the forts within his corps district, and is responsible to the commander-in-chief for the condition and training of his forces. He has also to see to the maintenance of peace and order in his district. The power exercising the highest authority in an army corps is called the General Command, the

business of which is conducted, under the supervision of the general commanding, by the chief of the general staff of the army corps. The latter is assisted by two or three officers of the general staff, two or three aides-de-camp of the rank of field officers or captains, the judge-advocate of the corps for conducting the courts-martial business, the surgeon-general of the corps, the veterinary surgeon of the corps, and the corps chaplain for attending to



CUIRASSIERS.

military-clerical affairs. The intendants have charge of all administration business.

Not all army corps have the same composition. Each of the army corps, from the 1st to the 10th, and from the 13th to the 17th, consists of two divisions, besides the artillery, pioneer, and train formations, while the 11th and 12th army corps have each a third division, which bear the numbers 25 and 32. The latter forms part of the Saxon army corps, while the former represents the contingent of the Grand Duchy of Hesse. Likewise the 2d Bavarian corps has a

strength of three divisions. Each division, except those of the guard corps, consists of two infantry brigades and one cavalry brigade (the first division having two of the latter). An army corps, furthermore, comprises a field artillery brigade, a battalion of train, and a battalion of pioneers, the last, as also the garrison artillery located within a corps district, being subject merely in a territorial meaning to the corps command.

The Prussian regiments and independent battalions are known—besides their regular number, and, in case of the cavalry, by the description of arms, whether cuirassiers, hussars, or uhlans—by the name of the province from which they are recruited.

By order of the commander-in-chief a number of Prussian regiments and independent battalions bear the names of princes and prominent generals, for the purpose, as it is expressed in the order, "of honoring and keeping alive for all time the memory of his [the King's] ancestors resting in God, and of such highly merited men as stood by their side in peace and in war, and by their distinguished services acquired just claims to a grateful remembrance by King and fatherland." A few regiments were also given names of families who have excelled by furnishing for long years an unusually large number of their members to the army and to prominent positions in the same.

G.—INFANTRY.

The infantry is the principal arm of the army, not only in regard to numbers, but for its capacity of being employed at any time and in any country. It forms, consequently, the principal part of the army, and is organized, since October 1, 1890, in 538 battalions, of which 519 are comprised in 173 regiments, while 19 are forming independent Jäger battalions. The number of infantry regiments contributed by Prussia is 133; Bavaria, 20; Saxony, 12; Würtemberg, 8; and of Jäger battalions by Prussia, 14 (including the guard Schützen battalion); Bavaria, 2; Saxony, 3.

The regiments are differently described as infantry, fusileer, grenadier regiments, also a Schützen regiment in the 12th army corps, but they do not differ in armament, training, and employment. The names of fusileers, grenadiers, and Schützen have merely a historical mean-

ing. In point of fact the infantry in the German army is a unity, which extends also to the rifles, although they have preserved some peculiarities. The Prussian rifle battalions are mainly recruited from professional rangers and foresters, who, as a rule, engage for eight years' active service, whereby they establish a claim for employment in subordinate positions in the government's forestry service.

A regiment has three battalions, each battalion four companies. The regiment is headed by a colonel, each battalion by a staff-officer as battalion commander, each company by a captain as chief of company. For internal service the company is divided into inspections under the supervision of lieutenants, and in corporals' guards under the guidance of non-commissioned officers.

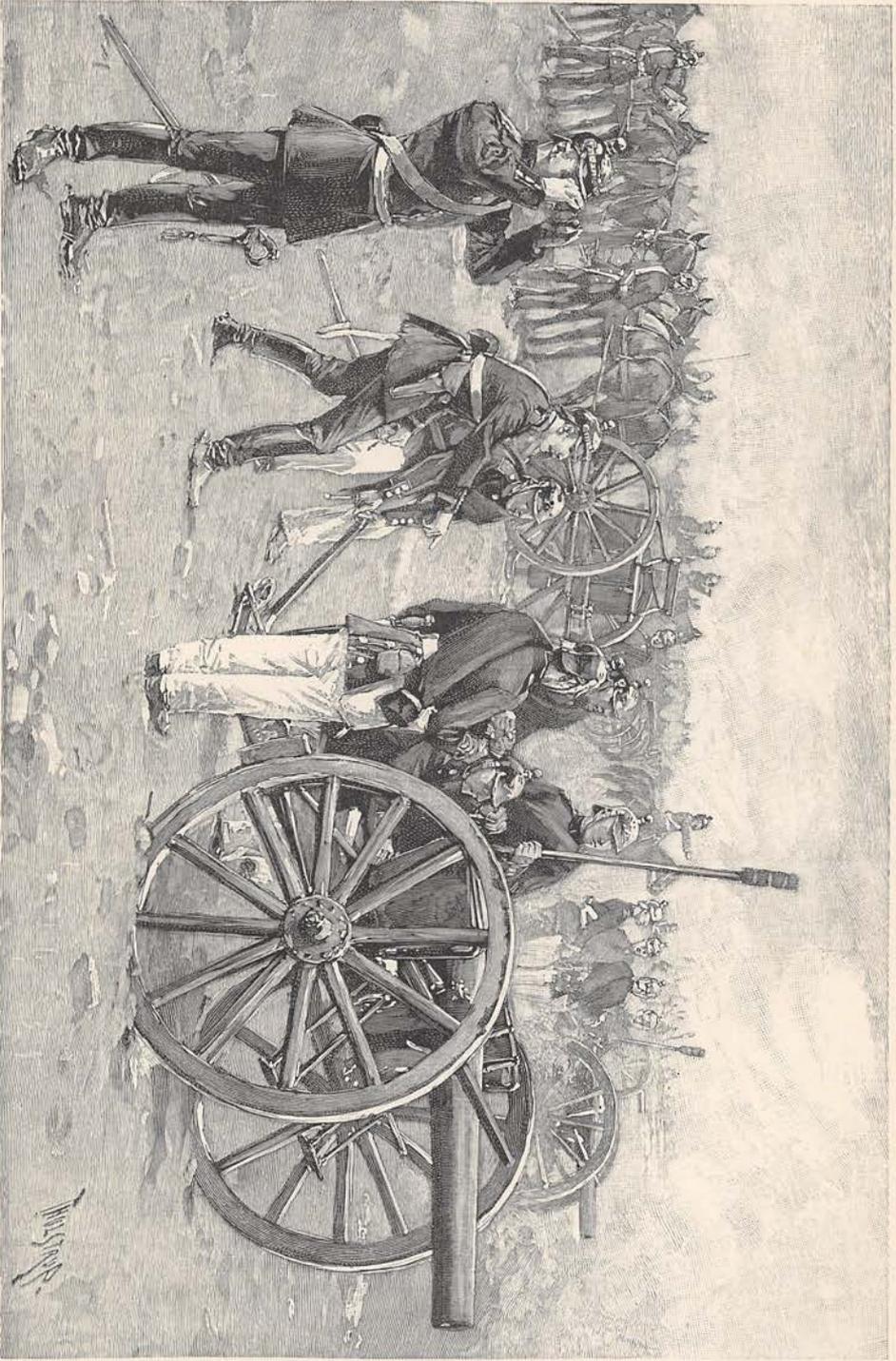
To the infantry belongs also the training battalion at Potsdam, which is attached to the guard corps, and to which officers, non-commissioned officers, and men from all infantry troops except the guard and Bavarian corps are detailed, generally for a period of six months. During winter the training battalion is reduced to the size of a company.

Among the men levied for the army, only such are mustered into the infantry as are able to bear arms and the fatigues of marching. They must have a height of at least 1.57 metres (61.8 inches). The most alert men are assigned to the rifles. For active service under arms each battalion draws annually 230 recruits if it is kept on the higher, 200 if on the lower standard.

H.—CAVALRY.

The cavalry is the only branch of the German army which has not been increased since the Franco-German war ended. The authorities consider the present strength of 93 regiments, or 465 squadrons, sufficient for all the duties devolving upon this arm in times of war, which are principally reconnoitring, watching the movements of the enemy, and pursuit, leaving a sufficient force available when the use of large bodies of cavalry appears necessary during a battle. Germany has more cavalry than any other European power, Russia alone excepted; the latter, counting in the Cossack formations kept under arms in peace-time, has 116 squadrons more, while France has 45 squadrons less than Germany.

Of the 93 regiments, 73 are formed by



FIELD ARTILLERY.

Prussia, 10 by Bavaria, 6 by Saxony, and 4 by Württemberg. According to the lighter or heavier material—horses as well as men—entering into the composition of the regiments, they are distinguished as light, medium, and heavy cavalry. The hussars, dragoons, and the *chevau-légers* of Bavaria belong to the light, the cuirassiers to the heavy cavalry, while the uhlans are an intermediate arm. While the existence of these different kinds of cavalry cannot be called an absolute necessity, especially as drill, tactics, and employment have become uniform, historical tradition favors and to some extent justifies their retention.

According to the above distinction, 12 regiments are cuirassiers, or heavy horse, 27 regiments are uhlans, 34 are dragoons and *chevau-légers*, and 20 hussars. The regiment of the *Garde du Corps* is included in the cuirassiers.

The eight regiments of the Prussian guards form the cavalry division of the guards, which is divided into four brigades. Of the line regiments, two or three form a brigade, which is designated by the number of the division to which it belongs.

To consider, experiment, and consult upon all questions of interest to the arm, a cavalry commission was formed in 1890. Members of this board are, among others, the two cavalry inspectors, whose duty it is to superintend the annual cavalry manœuvres and the journeys of the general and staff-officers for the study of tactics. They perform these functions under the direct personal supervision of the Emperor, while under that of the Minister of War they inspect the training-schools and the depots for remounts.

Each regiment is composed of five squadrons; of which, however, four only take the field, the fifth remaining at home to form the depot. Every year another squadron is designated for this service. The total strength of a regiment is 25 officers, 667 men, and 792 horses; 62 of the last are officers' horses.

As forming part of the cavalry, must be further mentioned the military riding-academy at Hanover, consisting of a school for officers, and one for non-commissioned officers of the cavalry and field artillery, who, in a two-years' course, receive a thorough training as riding-teachers. Similar objects are pursued by the military riding-academy at Dresden and

the Equitation Institute at Munich, both of the latter selling also trained horses to mounted officers of the infantry at fixed prices. Veterinary surgeons are educated at the Royal Veterinary School at Berlin; farriers, in several training-schools formed for this purpose.

The horses for the cavalry are in times of peace entirely obtained by off-hand purchasing from dealers. In Prussia the horses are bought at three years old by commissions composed of officers, and under orders of the remounting department of the War Ministry; for the purpose of further development, they are turned over to remounting depots. After remaining there for a year, they are sent to the regiments, where they are carefully trained, and, as a rule, are not put into active service until they are six years old. A similar system prevails in Bavaria, while in Saxony the horses are turned over to the regiments as soon as purchased. Germany is fortunate in possessing an abundance of excellent horses, which, after careful training, answer every requirement of the service.

For the cavalry, men of good muscular development are selected who are accustomed to horses, and physically particularly adapted for the exigencies of the service. For this reason they should not be too heavy, and the limit of weight is about 65 kilograms (or 146 pounds) for the light, and 70 kilograms (or 157 pounds) for the heavy cavalry.

I.—ARTILLERY.

The consideration of all questions relating to the organization, employment, and armament of the artillery is in charge of the General Committee for Artillery Affairs. Tests of new material are carried on by the trial battalion under the direction of a permanent commission formed for this purpose. In order to reach the greatest possible efficiency in target practice and the handling of the guns, officers and non-commissioned officers receive instruction in two schools of gunnery, which are maintained for the field and garrison artillery. In the technical institutions—artillery workshops, pyrotechnical laboratory, gun foundry, ammunition factory, and powder-mills—the whole equipment of the artillery as well as the train material for the other branches of the service is manufactured.



HORSE ARTILLERY.

The artillery consists of field and garrison artillery—the former attending the operations in the field, the latter being employed at the attack and defence of fortified places. Since the war of 1870-1 the artillery has considerably grown in importance, and in consequence its strength has been materially increased. Nevertheless it has not reached that of the French army, which has, even in peace, 46 field batteries more than Germany.

Recruiting and training are entirely different in the two branches of the arm; and while the field artillery forms part of the army corps organization, and is placed under the general commands, the garrison artillery, which as foot artillery is often called the infant arm of the army, forms a distinctive branch under the command of an inspector-general.

The German field artillery consists of 43 regiments, formed in 20 brigades. Prussia has 30 regiments, Bavaria 5, Saxony 3, and Württemberg 2. One brigade, consisting as a rule of 2, but in the case of the 11th, the 12th, and the 2d Bavarian corps of 3 regiments, is attached to each army corps. The total number of batteries since April 1, 1890, is 434, of which 46 are horse batteries, the men following the guns on horseback, while in the remaining 338 field batteries the men ride upon the caissons. The horse batteries are naturally able to cover much more ground at a quicker pace, and are therefore especially adapted for use in connection with cavalry.

The number of batteries varies in the

different regiments, some having 12, others 6, 7, 9, and 11 batteries. As a rule, 3 field and 2 horse batteries form a division (*Abtheilung*), and 3 or 4 divisions a regiment. A regiment is commanded by a colonel, a division by a staff-officer, and a battery by a captain as chief of battery. On war footing a battery consists of 6 guns, 8 ammunition caissons, 2 magazine wagons, and a forge. In peace only 4—sometimes 6—guns are kept in service. For this reason the number of horses required on mobilization is increased almost twofold.

Since the field artillery has been attached to the different army corps as to tactical training, organization, mobilization, and personal matters, the position of Inspector-General of the Field Artillery has been created, who has the supervision of technical matters and of the target practice.

The composition of the garrison or foot artillery is of a different nature. Under an inspector-general as commander-in-chief, there are 4 inspections, each composed of 2 or 3 regiments. In addition, Bavaria maintains a separate inspection. The total strength of the foot artillery consists of 31 battalions, of which Prussia furnishes 24, Bavaria 4, Saxony 2, and Württemberg 1. In all questions relating to territorial matters only the foot artillery is subject to the jurisdiction of the army corps within whose territory the different regiments are stationed. The majority of the regiments are, for speedy readiness in war, garrisoned at

the large forts near the borders of the empire.

The large quantities of material—cannons, wagons, harness, etc.—not used by the troops in times of peace are stored in artillery depots, under the charge of staff-officers or captains, who are responsible for the preservation of the goods, which must always be kept ready for immediate use. For purposes of additional supervision, four inspections of artillery depots are formed, each under command of an inspector with the rank of a staff-officer or major-general.

K.—ENGINEERS, PIONEERS, AND RAILWAY TROOPS.

The engineers and pioneers of Prussia are under the command of an inspector-general as highest in authority; they are divided into four engineer and two pioneer inspections. The former comprise all fortifications; the latter, the pioneer battalions. Bavaria has one inspection of engineers and fortifications, the pioneer battalion of Saxony is attached to the artillery, and that of Württemberg stands directly under the general commanding the army corps.

The officers of the engineer corps are either employed in the construction and maintenance of fortifications, or they do service with the pioneer battalions. One of the latter is attached to each army corps, bearing the number or designation of the latter. But the jurisdiction of the commander of the army corps extends only to territorial matters, and he is in virtual command only during the large manoeuvres of field exercises; the supervision and regulation of the drill and the technical training are exclusively in charge of the inspectors. Of the 20 pioneer battalions, Prussia has 16, Bavaria 2, Saxony and Württemberg 1 each. As parts of the Prussian engineer corps, are to be mentioned the committee on engineering affairs, a board composed of general and staff officers, which has to consider all questions arising in connection with this branch of the service; a school of fortifications, where non-commissioned officers and privates are trained for service as subalterns in the construction of fortifications; and the telegraph inspection, with a school of telegraphy.

A battalion of pioneers is composed of four companies, whose drill differs, inasmuch as one company is trained principally in bridge-building and another in

mining. All pioneers must also pass through the regular infantry drill, for, in case of need, they are used as infantry, and must know how to fight as such.

The railway troops consist of the Prussian railway brigade, in technical and scientific matters under the command of the Chief of the General Staff of the army, and of the Bavarian railway battalion. The former is composed of two regiments of two battalions each, a battalion being subdivided into four companies. The Bavarian battalion has only two companies; Saxony and Württemberg furnish each one company of the second Prussian regiment. During a war the railway troops are charged with the construction of new railroads, the repairing of lines destroyed by the enemy, and the demolition of others, when this becomes a necessity. In times of peace these troops receive a thorough technical training, for which purpose the entire management of a military railroad running from Berlin to the rifle range at Kammersdorf—a distance of about 33 English miles—is under their charge. This line is also open for the use of the public. To the railway brigade is attached an aeronautic detachment, which pursues experiments with balloons, with special regard for their use in war for military purposes. As soon as the problem of aerial navigation has been satisfactorily solved, this detachment will, of course, greatly gain in importance, and will be correspondingly increased in strength.

For the technical organizations men are selected who are fit to work in the open air and under unfavorable conditions without showing fatigue when special exertion is required, and who in their private life have had some experience in kindred occupations.

L.—MILITARY TRAIN AND TRANSPORTATION.

The German army has 21 train battalions, of which 17 are formed by Prussia, 2 by Bavaria, and 1 each by Saxony and Württemberg. With the exception of the 16th and 25th, which consist of two companies, and the 12th battalion, which has four, each battalion is composed of three companies. To each of the Bavarian battalions a sanitary detachment is attached. In addition each battalion includes a company composed entirely of men who are bakers by profession. They are in peace-time employed in the military bakeries established in

all larger garrisons, where the bread for non-commissioned officers and privates is made. At mobilization they furnish the material for the field bakeries.

The train battalions form part of the artillery brigades, except in Bavaria, where they are subject to a distinctive inspection.

These train organizations, which have to furnish the men and horses for the transportation system of the entire army, require naturally a large number of men as soon as the army is put upon a war footing. For this reason their method of recruiting and drilling is entirely different from that of the other branches of the service. They draw fresh recruits twice a year, who, after being drilled for six months only, are placed in the reserve, only a limited number serving three years for the purpose of being trained as non-commissioned officers. In addition, a number of non-commissioned officers and privates of the cavalry are every year instructed in the service and placed in the train reserve.

The whole system is divided into three parts, viz., for the transportation of the baggage of officers and administrative officials, together with the latter's bureau materials, as also of a supply of clothing to replace that worn out by the troops; for transportation of a supply of provisions; and finally for transporting a supply of ammunition to replenish the stock of the troops. Sanitary detachments and field hospitals are also formed by the train battalions.

At mobilization the wagons are divided into two columns or echelons. One, called the small baggage, carries everything necessary for the troops during or immediately after a battle, while the heavy baggage follows at a greater distance, and carries all supplies required for the sustenance of the army during its operations in the field.

Every army corps has its own train, divided into wagon columns as above. They comprise ammunition trains, provision trains, the pontoon train, the field bakery, a depot of remounts, and the field hospitals.

While it has been the constant aim of the authorities to reduce the number of wagons to what absolute necessity requires, the train of an army corps at present comprises at least 1700 wagons and 6000 horses.

M.—THE MEDICAL DEPARTMENT.

In accordance with the principle that the maintenance of the efficiency of the army is the prime condition of final success, and that the care for the troops is one of the most important duties of the commander and the administration, the greatest attention has been paid in the German army to sanitary matters. The system is divided into the medical *personnel* and the sanitary institutions. The former comprises all sanitary officers, including the apothecaries, who rank with administrative officials, the non-commissioned surgeons and apothecaries, the hospital stewards, the nurses, and, in war, the men carrying away the wounded. The sanitary institutions comprise, in peace, the garrison hospitals and regimental wards for sick soldiers; in war, the sanitary detachments, the field hospitals, the war *etappen* and reserve hospitals, and the sanitary trains upon the railroads.

The highest authority in peace is the Medical Department of the Prussian War Ministry; in war, the chief of the sanitary service, who is attached to the headquarters of the army. Under the direction of the Surgeon-General of the army, a surgeon-general supervises the sanitary service of each army corps. In Bavaria and Saxony a sanitary department or a sanitary director takes the place of the Surgeon-General. In each division the surgeon oldest in rank has general charge of the sanitary affairs, while the practical work devolves upon the staff and assistant surgeons attached to every body of troops, who are in turn assisted by non-commissioned surgeons. All surgeons have the rank of officers, and occupy positions of absolute equality with the latter.

It may be mentioned here as a matter of interest that the death rate of the German army in peace is smaller than that of any other standing army. The same applies to the number of sick and disabled persons.

In war every sick or wounded soldier, as well as any person charged with the care for the same, is protected by the stipulations of the Geneva Convention. All those connected with the sanitary service carry, therefore, the well-known badge, the red cross on white ground, which is also painted on every wagon belonging to the service, while a flag showing the same emblem floats over every hospital. Red flags, or red lanterns

during the night, make known at large distances the places where the wounded are collected and where the field hospitals are established.

Every soldier carries a small package of bandages, and around his neck a badge with his name, for purposes of identification. Every hospital steward carries a satchel with bandages and a bottle with restoratives, every surgeon a case of instruments. Every battalion of infantry or regiment of cavalry is followed by a medicine-wagon, filled with medicines and bandages, stretchers, and everything else necessary for the care of wounded or sick soldiers during march or battle.

The voluntary medical service has become a valuable adjunct to the regular military sanitary service since it has been regulated by proper rules. It is under the direction of a commissioner appointed by the Emperor, and many excellent young men entered its ranks during the last war who were incapacitated from some cause for other service. Many eminent physicians devoted themselves likewise to the care for the sufferers by accepting positions as consulting surgeons-general.

N.—MILITARY ADMINISTRATION OF JUSTICE.

Military justice is administered under the direction of the Judge-Advocate-General in Prussia, the Judge-Advocate in Bavaria, and the Supreme Court Martial in Saxony, by corps, division, brigade, regimental, and garrison courts. Subject to military justice are all persons in active service, all officers retired with half-pay on waiting orders, and the administrative officials of the higher grades. There are higher and lower courts. The former adjudge all cases where officers are concerned, or where the accused is a non-commissioned officer or private and the punishment in case of conviction would be harder than simple confinement, reduction in rank, or transfer into the second class. All other cases belong before the lower courts. Every one of the courts named above is composed of the commander of the respective troop as president, and a judge-advocate. In the regimental courts the place of the latter is taken by an investigating officer. After an investigation conducted by the judge-advocate or the investigating officer, with one or more officers as assessors, the case is submitted to a court martial of

the higher or lower order, as the case may be. A court martial is always composed of a judge-advocate or investigating officer and five classes of judges, whose rank depends upon that of the defendant. If the latter is a private, for instance, three judges are officers, one a non-commissioned officer, and one a private. The court martial is presided over by a staff-officer or captain. The judgment must be confirmed by the president of the judicial district.

In Bavaria, military district courts take the place of the higher courts martial, and the proceedings are public.

Offences against military order and discipline for which no punishment is mentioned in the code, transgressions of regulations, and such infractions of the rules as render the defendant liable to slight penalties only, are subject to so-called disciplinary punishment. This applies in times of war also to all civilians connected with the army in any capacity whatsoever, and to prisoners of war. Power to execute disciplinary justice is granted only to officers in command of troops from the rank of captain upward, and the extent of their power is regulated by the position they occupy. On the effective use of this power the discipline of the troop depends to a very large degree.

O.—SEPARATE ORGANIZATIONS.

To the army belong several separate organizations. One of them is a corps of mounted rifles employed as couriers in peace as well as in war, and in the diplomatic service. Another one is composed of non-commissioned officers of the guards who have passed a long term of service, and whose duty it is to watch the royal palaces and gardens, and to mount guard at special occasions and celebrations; this organization is called the Company of Palace Guards. The corps of body gendarmes furnishes the orderlies in personal attendance on the Emperor. The territorial or field gendarmery, under command of a general, is composed of non-commissioned officers. Its discipline and subsistence are regulated by army officers; its functions and duties, by officials of the Ministry of the Interior.

P.—CHAPLAIN DEPARTMENT.

At the head of the military clergy of Prussia are placed the Protestant and the Catholic *Feldpräpste* (chaplains-general),



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directly under the War Ministry. To each army corps a chaplain is attached, while two or four division chaplains, some of them Protestants and some Catholics, are subject to the chaplain's orders. These clergymen have charge of the spiritual affairs of the congregations into which the troops are united. All soldiers must attend church on regularly designated Sundays and holidays, and take communion at least once a year. In the field the duties of the chaplains are especially beneficial and gratifying. By holding religious services and dispensing consolation and encouragement among the sick and wounded, they are most efficient instruments for preserving and animating religious sentiment in the army.

The army chaplains are officials of superior rank, and wear a distinctive official dress when officiating and in the field. In Saxony the system is practically the same as in Prussia, while Bavaria and Württemberg have no army chaplains in peace, their duties being performed by ministers connected with the churches at the different garrisons.

It must be added that all denominations have equal rights in the army.

IV.—TRAINING.

The final object of all training in peace is to secure success in war, therefore all efforts must be directed to a martial training of individuals as well as of tactical bodies. This duty devolves upon commanding officers of every rank, from the captain upward, who shall in their work be allowed as much latitude as possible, superiors only to interfere in cases of mistakes or failure of progress. The system of advancing from less to more difficult training has to be strictly observed; individuals and smaller squads must be thoroughly drilled before they are made part of larger formations. The thorough and skilful schooling of the individual soldier and of the single horse is rightly considered of the utmost importance.

The drilling of the recruits takes generally from two to three months, whereupon they are mustered into the companies, squadrons, or batteries, where they are instructed in regular evolutions and movements, in common with the older men. Then follow the exercises in battalions and regiments and in mixed divisions; and finally the fall manœuvres, which are held in the open field, and

made to approach as near as possible the realities of war. Some army corps have Emperor's Manœuvres, so called from the attendance of the Supreme Commander and officers of foreign armies. The remaining army corps exercise in division formations, with their allotments of artillery and pioneers. There are also arranged every fall fortification exercises on a large scale, and manœuvres of cavalry divisions formed by the concentration of a number of cavalry regiments.

General officers commanding troops have to inspect the troops under their care in order to satisfy themselves of the degree attained in training. Time and duration of such inspections are regulated by general rules. At the conclusion of every inspection the inspector-general shall give, in the form of an instructive criticism, his opinion of the bearing and performances of the troops.

V.—ARMAMENT.

The rifle model of 1888 in use in the German infantry answers all requirements of a hand fire-arm. A breech-loader by construction, allowing the simultaneous loading of five cartridges united in one frame, it covers a maximum range of 3800 metres, although sure effects can be guaranteed only at distances up to 1500 metres. The rifle is of 8 millimetres calibre, and the bullet, made of hard lead with a nickel covering, weighs 14.5 grams; the composition of the powder and the size of the powder measure are secrets of the government. Besides the rifle, the infantry carries side-arms, which can be attached to the rifle as a bayonet, rendering the former also useful for close fighting. Officers and sergeants-major wear swords and revolvers.

A uniform armament of the entire cavalry has been established by the equipment of cuirassier, hussar, and dragoon regiments with steel tube lances. Disputes about the value of the lance are probably as old as the cavalry itself, says a prominent military author, but its superiority over other weapons when used in pursuit or single combat is generally admitted. The cavalry soldier is armed also with carbine and sword, the former enabling him to take part in fights at short distances.

The entire field artillery has guns of 8.8 centimetre calibre, as yet of two slightly differing kinds of construction, known

as the heavy field-gun and the field-gun proper. The former is used by the field artillery, the latter by mounted or horse batteries. As the construction of heavy field-guns has been abandoned, it is but a question of time when the entire field artillery shall use uniform material, an advantage not gained yet by the field artillery of any other country.

Fortress and siege guns differ in construction and calibre, according to the different objects of their use in fortress wars.

VI.—EQUIPMENT AND CLOTHING.

The uniform of the German army is handsome and practical; a few changes, however, are just now being contemplated. Officers and military officials have to provide their own clothing and equipment, while non-commissioned officers and men receive the same from their respective troops, special funds being allowed the latter for that purpose.

The regulation or field-service head-dress of the infantry, artillery, dragoons, and pioneers is the helmet; of the rifles (Jäger and Schützen), the "kappe"; of the uhlans, the "czapka"; of the hussars, the fur cap; and of the cuirassiers, the steel helmet. The uniform coat of the infantry and pioneers is dark blue; of the rifles, dark green, collar and cuffs being red and black respectively; the shoulder-straps bear the number of the regiment or the monogram of the princely chief. Cuirassiers wear white coats, the several regiments differing by the color of the sleeve revers and braiding; the dragoons have light blue coats; the uhlans, dark blue "ulankas." The hussar regiments are distinguished by the different colors of their "attila" (red, green, light and dark blue, and black, with white or yellow braiding). The difference in color and equipment of the several branches of the cavalry is founded on historical traditions which the army likes to preserve. The cuirass is only worn at parades, but no longer in the field, as it oppresses and hinders the horseman.

The trousers are almost without exception made of black cloth, riding-boots being worn by all mounted troops, as also by the general and staff-officers, and by mounted officers of the infantry.

All troops of the guard corps and the body-guard regiments are distinguished by white or yellow stripes upon the col-

lar. As to color, style, and equipment, the uniforms of the non-Prussian army corps differ in several regards from the above description. In Saxony, for instance, the artillery has kept the dark green, the cavalry the light blue coat; in Bavaria the predominant color of the infantry is a light blue; of the cavalry, a steel green.

Complete uniformity, however, has been established throughout the German army as to the rank distinction, those of the non-commissioned officers being marked on collars and cuffs, of the officers on the differently shaped shoulder-straps. By the number of stars attached to the latter the rank of an officer is recognizable. Epaulets are only worn at grand parades, court festivals, and for full toilet.

VII.—OFFICERS, NON-COMMISSIONED OFFICERS, AND PRIVATES.

A.—THE CORPS OF OFFICERS.

"The spirit of the Prussian army is moulded by its officers," said one of the heroes of the wars against Napoleon I. This utterance is as true now as it was eighty years ago, for the spirit governing the corps of officers, its condition, and efficiency have a decisive influence upon the whole army. The corps of officers is entitled to a privileged position in the community, which is shared by its individual members in private life.

The corps of officers completes itself from graduates of cadet schools and from young men called "avantagés," who enter the army with the expectation of being promoted. In cadet schools, principally sons of officers of the army and navy and government officials are educated; in limited numbers also sons of civilians. They enter the schools at the age of ten in Prussia, at the age of twelve years in Bavaria and Saxony. The plan of instruction is substantially the same as that of an industrial high-school, the tuition fee is moderate, and the principal part of the cost of maintenance is borne by the state.

The officers are divided into four classes or grades: subaltern officers, or second and first lieutenants; captains, called "Rittmeister" in the cavalry; staff-officers, comprising majors, lieutenant-colonels, and colonels; and finally generals, subdivided into major-generals, lieutenant-generals, generals of the infantry,

cavalry, or artillery, colonel-generals, and general-fieldmarshals.

The pecuniary compensation granted to officers is, generally speaking, sufficient, though in the lower grades exceedingly moderate. It is hardly possible for a second lieutenant, whose monthly income, inclusive of the allowance for providing quarters, averages about 120 marks (about \$30), to make both ends meet without the aid of a private income, even if he exercises the strictest economy and avoids all expenditures not absolutely necessary. Officers who have no private means whatever, or whose relatives are not in a position to assist them, receive a small extra allowance out of special funds or from the Emperor.

Officers of the rank of captain of the first class (captains and Rittmeisters are divided into two classes, according to the salary they receive) and officers of the higher grades receive a compensation which may be called sufficient for providing the necessaries of life and meeting the expenditures connected with the position. Still, the purchase and maintenance of the horses require monetary sacrifices of considerable magnitude, as the government grants only an allowance for the daily rations and the stabling of horses where they are not provided for in barracks. It is intended to extend this allowance to the purchasing and replacing of horses. The total annual income of a captain of the first class is about 5000 marks (\$1250); that of a major or lieutenant-colonel, 6600 marks (\$1650); of the commander of a regiment, 9000 marks (\$2250). In addition to the actual salary, every officer not stationed in barracks receives an allowance for providing lodgings, which is measured by the prices ruling in the garrison in which he is stationed and by the rank of the recipient.

It is impossible for a young officer to maintain by his salary a family in the style made necessary by his social position. If he wants to marry, he must receive permission from the Emperor, and is required to furnish satisfactory proof of a reliable private income amounting (in Prussia) to at least 1800 marks per annum; in some of the other states it is even higher. Captains of the first class and officers of the higher grades are not required to possess private means. The future wife of an officer must enjoy an

unblemished reputation, belong to a family of unquestioned respectability, and possess all the qualities which tend to make a worthy member of the society she enters.

Officers who on account of old age or physical infirmities are incapacitated for service in the field are discharged with pensions or placed on waiting orders. An age limitation, as in France and in the United States, does not exist. The amount of the pension is regulated by the grade of the retiring officer, the salary he receives, and the length of service; it is never higher, however, than three-quarters of the amount drawn at the time of retirement. Widows of officers, and orphans until they are seventeen years old, receive pensions and allowances for purposes of education out of the Imperial Fund for Officers' Widows.

As a rule, every regiment maintains a *mess*, or officers' club, which forms the centre of social intercourse among the officers, and affords an agreeable meeting-place after duties have been attended to.

B.—NON-COMMISSIONED OFFICERS.

Non-commissioned or under officers are taken from among such privates as have distinguished themselves by close attention to duty, manly and honorable bearing when off duty, and who exhibit military qualities. Their promotion to the rank of officer is not possible in times of peace, but may take place in war as a reward for exceptional bravery.

Only after a term of service as high-privates (*Gefreiten*) are men promoted to the rank of non-commissioned officers. They become then superiors of the privates, and must be saluted by them. Non-commissioned officers are divided into two classes, those with and those without the *portepée* (silver sword-knot). The former class comprises the *Feldwebel*, called *Wachmeister* in the mounted troops, and several classes of officers designated by various names, but of the same rank and with the same functions. The last-named class is subdivided into sergeants, under-wachmeisters, and under-officers proper. The position of the *Feldwebel* (sergeant-major) is a highly important one. He is the captain's first assistant in all matters relating to the internal management of the company, and is therefore appropriately called the "mother of the company."

It is the good fortune of the German army to possess in its non-commissioned officers an abundance of material fully competent for the arduous duties assigned them. Prince Bismarck gave expression to this fact in his memorable speech of February 6, 1888, when, during the debate on the bill providing for an increase of the army, he said, "We have sufficient material for officers and under-officers to lead the army, and no other people on the face of the earth can compare with us in this respect." This utterance is entirely correct, for in no other country has education so thoroughly permeated such large masses of the people, enabling them to furnish capable commanders and leaders of others, either as officers or non-commissioned officers.

In a financial respect it may be said that the non-commissioned officers are adequately provided for, although they are not as favorably situated as the same class in the French army. In addition to the regular pay, which is regulated by the rank and the length of service, and which in the case of the *Feldwebel* amounts to two marks per day, an allowance is granted for board. All non-commissioned officers are clothed and provided with quarters by the government.

C.—PRIVATE SOLDIERS.

The complement of the army is kept up by the enlistment of recruits drawn every year, and of young men entering the service voluntarily. The drill begins immediately after the recruits have arrived at the regiment—as a rule, in the



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first days of November. After a few weeks the articles of war, a codification of the most important duties of the soldier and of the penalties for derelictions and transgressions, are read and explained to the men, whereupon they take the oath. This act is made as solemn as possible; the sacredness and importance of the oath are dwelt upon at length, and the recruits swear that they will faithfully serve their supreme commander and obey the articles of war, and behave like honorable and faithful soldiers.

All soldiers are, as a rule, quartered in barracks; rarely, and only in very small garrisons, in rooms rented from private citizens. An exception is made during the time of the large autumn manœuvres, or field exercises, when the troops are practically in the field. Everything that can be thought of is done to provide healthy and comfortable quarters and good, substantial food. The food is prepared in the barrack kitchens, or *ménage*, under the supervision of an officer, and consists of coffee for breakfast, meat and vegetables for dinner, coffee in the afternoon, and frequently a warm supper. To cover the expense, the government allows a certain amount, varying according to the price of provisions ruling in the different garrisons, between 12 and 18 pfennings per day for each soldier, and 12½ pfennings are deducted from the pay of the men. Their pay amounts to 30 pfennings daily, and is handed to them three times a month. In addition, the soldier is entitled to about 1½ pounds of bread per day.

In order to preserve the mental and physical vigor of the men, the duties are regulated in a way to afford constant variety and change of occupation. The training is not confined to the mere drill, and purely military proficiency is not the only object aimed at. On the contrary, the principal duty of the officer is to transform the raw and ignorant recruit into a perfect man; while the soldier must learn to see in his superior a man whom he can follow unhesitatingly and with unlimited confidence, who will not ask more of him than is absolutely necessary, and who will care for his welfare to the fullest extent of his ability in every respect. It is strictly forbidden to submit soldiers to a treatment tending to degrade them or to hurt their feelings, and violations of this rule are punished

severely, without the slightest regard for the person of the offender.

Ambitious soldiers are given an opportunity to perfect their education in many ways. In evening schools instruction is given in the elementary sciences; in other schools, "capitulants," that is, men who have signified their intention to reenlist, are instructed in a more advanced course, as well as in the theoretical and practical use and the construction of fire and small arms.

A great many of the men honorably discharged join veteran associations, or "Kriegervereine," whose aim is to preserve among their members military sentiments and good-fellowship, and to assist comrades in distress caused by sickness or misfortune. These associations are now existing in every part of Germany, and are united to district associations, as "protectors" of which, princes or other persons of exalted position officiate. The membership is growing constantly, and may at present be estimated at not less than 500,000 men.

In conclusion it may be mentioned that all persons in active service are prohibited from voting and participating in political agitation; the same rule applies to all reservists for the time during which they are attached to troops for the purpose of finishing their practice drills.

VIII.—THE ARMY ON A WAR FOOTING.

The work of placing the army from the peace organization on a war footing is called mobilization. It must be performed and finished within a given number of days. The order to mobilize issues from the Emperor, and is made known forthwith to all military and civil authorities, as well as to the people, the former being notified by telegraph. A mobilization affects not only public life, but the business and professional relations of every individual. From the moment the order is given, a spirited and well-directed activity is displayed by every troop to get ready in time, everybody knowing beforehand what is required of him in this emergency. The first step to be taken is to call in the reserves, in order to fill up the ranks of the standing army and to form new troops. This is done by written summonses issued from headquarters of the district commanders. These summonses are kept always ready, and every man liable to service in the army

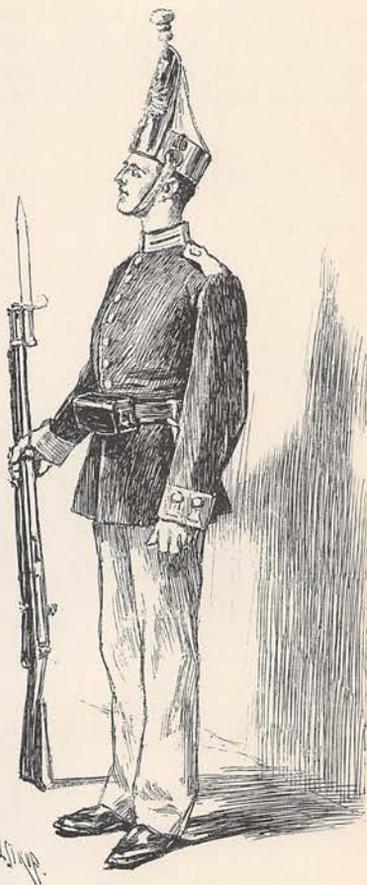
or navy is pledged to heed them without delay. At the same time the levy of horses is begun, of which there is a very considerable number required for the train, for mounting officers and military officials, and for the formation of new troops. All measures connected with a mobilization are mapped out in every detail during peace-time, the army being practically prepared for this change at any time.

The organization of a mobilized army corps is similar to that in peace. The additional formations are independent cavalry divisions, composed of a number of cavalry regiments withdrawn from the regular divisions; also reserve divisions and depot and Landwehr formations of every kind. The duty of the latter is to maintain the active army at full strength, and to garrison places at home as well as on or near the seat of war. The army corps is further replenished by its allotment of train columns and sanitary detachments. The artillery of the army corps is partly distributed among the divisions, partly used in the formation of a corps artillery, which is placed under the independent command of a general. The pioneer battalion is broken up, and the several companies are detached to the divisions. Additional formations are finally required for the mail, telegraph, balloon, and railway service.

At the head of the entire German army is the Emperor. From army corps and cavalry divisions armies are formed and placed under special command and administration. As soon as the army moves, the *etappen* are organized for the purpose of keeping up connection with the rear, if possible by railways.

IX.—THE ARMY EXPENSES.

Since the close of the war of 1870-1 there have been several causes for increasing the army expenses, among them the increase of the peace strength of the army, the armament of the infantry with new rifles, the supply of ammunition and the new artillery material, erection of fortifications and army buildings, so that the army appropriation in the imperial budget of 1890-1 (the fiscal year begins on the 1st of April and ends on the 31st of March) amounts to 387 millions of marks for regular or continuous, and 296½ millions for contingent expenses. For the fiscal year of 1891-2



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the Reichstag has been asked to increase the former item 25½ millions, while a reduction in the latter to the amount of 225½ millions is proposed.

Although these figures seem high, they are lower than the expense of the standing armies of France and Russia. The following table shows the sums appropriated by different countries for army purposes, not taking into account any extraordinary and annually varying contingent expenses, for the year 1890, resp. 1890-1:

	Marks.
Germany.....	387,000,000
Austro-Hungary.....	238,000,000
France	445,000,000
Russia.....	533,000,000
Italy	206,500,000
Great Britain.....	347,200,000
United States of North America....	190,000,000

The expenses for the army have often been characterized as of the unproductive kind, but this can hardly be applied to a state which by its geographical position may be entangled into war almost at any

The army represents not only the people in arms, but it is also an educational institution, in which, in addition to mental and physical development, the male youth are taught the virtues of patriotism,



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time. Past history has proved that an unlucky war has caused far greater sacrifices than the maintenance of an army which is ready to contend with any opponent.

obedience, and a sense of duty very beneficial to them in after-life. The army, therefore, possesses also from an ethic point of view an importance which cannot be overrated.