

The Army in India
And
Its Evolution



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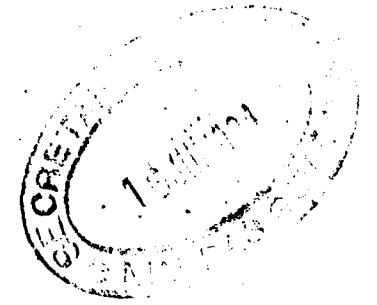
History of the Sepoy War (Kaye).

The Presidential Armies of India (Rivett-Carnac).

The Indian Army—A Sketch of its History and
Organization (Collen).

The Army Book of the British Empire.

Official despatches.



PREFATORY NOTE.

The principal purpose of this book is to provide a contemporary account of the measures of reorganization carried out in the Army in India after the Great War of 1914-18, and to describe, in a connected form, the essential features of the army as thus reconstructed. The opportunity has been taken of reviewing broadly at the same time the evolution of the Army in India from its first beginnings, the object being to indicate the chain of causation which ultimately produced the after-war reforms, and also to preserve, in a convenient relation, a record of the military institutions which served India before the war, and which have been so greatly altered by the after-war reforms that they may soon stand in danger of being forgotten. The book is intended for the information of the general public and also for the use of military officers in connection with their promotion examinations. It is intended, so far as possible, to be purely a statement of facts. It has been compiled officially and is issued with the authority of the Government of India whose approval, however, must not be taken as extending explicitly to every statement or expression of opinion which the book contains.

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Part I

Introductory & General



Chapter I—Historical Retrospect.

THE Army in India is composed of individuals who have voluntarily undertaken military service, and its principal sub-divisions are fighting troops; ancillary and administrative services and departments; and followers. At the present day it comprises the following troops serving in India:—

- (a) The regular British forces.
- (b) The regular Indian forces.
- (c) The Auxiliary Force.
- (d) The Indian Territorial Force.
- (e) The Indian Army Reserve.
- (f) The Indian State Forces, when placed at the disposal of the Government of India.

This is the Army in India as it is known to-day, but it is only in recent times that the categories above enumerated have been completed and their several designations have crystallised. The Auxiliary Force and the Indian Territorial Force were established in 1920. No organized Indian Army Reserve was formed till 1887. The adjectives "British" and "Indian" which differentiate the two main branches of the army have been habitually used only in recent years. Even the term "Army in India" itself—though employed loosely from 1875 onwards—only became a stereotyped and officially recognized title after 1903; and in describing the creation and evolution of the Army in India the term is intended to denote broadly the body of troops in India serving under the British Crown. It has with one unimportant and ephemeral exception been a voluntary army at all times.*

A historical retrospect may be conveniently divided into the following periods:—

First Period.—The initial phase 1600-1708 A.D. when the forces of the East India Company were isolated and unorganized entities.

*During the Great War of 1914-18 the Indian Defence Force was on a compulsory basis, *vide* Chapter XVII.

Second Period.—The Presidency Armies under the Company 1709-1857.

Third Period.—The Presidency Armies under the British Crown, 1858-1894.

Fourth Period.—The period of union, after the abolition of the Presidency Armies, 1895-1920.

Fifth period.—The period of consolidation, 1921 to the present day.

The first period, 1600—1708

On the 31st December 1600 Queen Elizabeth granted a charter to a certain association of commercial gentlemen, which styled itself "The Company of Merchants of London trading unto the East Indies." On the 11th January 1613 the Mogul Emperor's firman to establish a factory at Surat was delivered to Captain Best, the Company's representative. This was the first appearance of the British in India and is the origin of the Bombay Presidency.

1600-13.—The origin of the Bombay Presidency. Soon after, in 1625 a trading centre was established at Masulipatam, and later was removed to Armegaon on the same coast, where the Company erected fortifications. But in 1640 the Company made a great stride in acquiring on very favourable terms the concession of Madras, which became the first independent position of the British in India. Permission was obtained to build a fort, which exists to this day as Fort St. George and was the origin of the Madras Presidency. In 1634, by a firman of the Emperor Shah Jehan, permission was given to the Company to establish factories in Bengal with a fort at Piplee.

There is no difficulty in thus ascertaining the beginnings of the great presidencies. It is a harder task to identify the initial stages of the armies which were to be so long and so intimately associated with them. From the first it was necessary to enrol guards for the protection of the several factories of the Company. These guards consisted of small bodies of ill-disciplined Europeans and badly armed native peons, whom we should now regard more as a corps of chowkidars than as soldiers. The purpose of their existence was not only to safeguard the walls of the factories and the valuable

merchandise which they surrounded, but also to enhance, by their presence, the dignity of the Company's local officials.

The earliest force which can be seriously regarded as the embryo of the Army in India originated in Bombay. In 1662 the island of Bombay became the property of King Charles II, ceded to him by the Crown of Portugal as a portion of the marriage settlement of his Queen, Catherine of Braganza. A detachment of King's troops, subsequently augmented by a few Europeans of various nationalities collected locally, was its garrison. But to the impecunious King the maintenance of this property soon proved burdensome. The cost was excessive, the resulting profits little or nothing. Moreover the relations between Sir Gervase Lucas the Governor of the island, and the Company's representative at Surat became strained. The former, as an officer of the King, claimed precedence over the latter, the Company's President. The violent disputes, which were thus combined with the poor financial prospects of his property, induced King Charles to offer the island of Bombay to the Company.

The Company accepted the offer. The island was handed over on the 27th March 1668 on a yearly rental of £10 in gold, and was placed under the jurisdiction of the Company's President who resided at Surat, while a deputy governor was appointed to reside in Bombay. At the same time the King's troops were offered service under the Company. They were to retain their rank and pay—those who declined being granted free passages to England. It is reported that the offer was generally accepted, and thus King's troops were converted from the service of the Crown to the service of the Company: a procedure which was exactly reversed 190 years later, when the Company's European forces were converted to the service of the Crown after the great mutiny of 1857.

The garrison of Bombay, after control had been assumed by the Company, was slightly reduced from its former establishment. Besides 2 gunners and their 21 pieces of cannon, the garrison now consisted of 5 officers, 139 non-commissioned officers and men, and 54 Topasses. All were Europeans except the 54 Topasses, who were half-castes claiming descent from the Portuguese and were so called, no doubt, from the form of the headgear which they affected. As there were no troops at Surat, the head-quarters of the Agency, we may assume that the small body of troops described above formed the nucleus of the Bombay Army. Indeed it may

be said that this was the origin also of the Army in India, because at that time the troops located in Madras and Bengal were a negligible quantity. In Bengal the forces were limited to an ensign and 30 European soldiers—the equivalent to the traditional corporal's guard of the British Empire.

Certain increases were made in the Company's forces, notably in 1683 when the Bombay garrison was supplemented by the enrolment of 2 companies of Rajputs. Each company consisted of 100 men, commanded by their own Rajput officers; and this small force may be regarded as the first beginnings of the Indian Army.

But the closing years of the 17th century were marked by various economies and reductions which financial stringency appeared to necessitate. In 1678 the rank and allowances of the President and Council at Surat and of the Deputy Governor of Bombay were diminished, the garrison was slightly reduced, and the extra allowance (batta) granted to the 30 men, who were then detailed as guard at the Surat factory, was discontinued. In 1692, on his arrival in Madras as the first Commissary and supervisor over all the Company's affairs in India, Captain, afterwards Sir John, Goldesborough ordered that the 2 companies of the garrison, hitherto commanded by Lieutenants, should in future be commanded by Captains, in the persons respectively of the Governor himself and his first member of Council. To ensure, however, that economy should be duly observed it was laid down that the 2 Captains should receive no pay of their appointments during peace! Not long after Captain Goldesborough sanctioned a force of 100 Europeans for Mr. Charnock, the Agent in Bengal, but on proceeding to Chatтанутtee on a tour of inspection in 1694 he peremptorily ordered the establishment to be reduced to 2 serjeants, 2 corporals and 20 privates.

In 1696, however, the agent, Mr. Charles Eyre, once more applied to the local Nawab for permission to fortify his factory at Chattranuttee. He was given permission to defend himself, and Fort William was constructed, and remained, for 200 years, the seat of the Government and the Headquarters of the Army in India.

In 1698, a new Company of Merchants received its charter. It was known as the English Company, in contradistinction to the old or London Company, and its officers were accorded special privileges. The two Companies became bitter rivals, but in 1702 a partial amalgamation was effected; and in

The building of Fort William, 1696.

The East India Company and the formal constitution of the three Presidencies.

1708 they were united under the title of the "United Company of Merchants of England trading to the East Indies," known to history as the East India Company.

One of the first measures taken by the United Company was the definite formation of the three Presidencies, each distinct from the others, and each absolute within its own limits. The President of each, who was also Commander-in-Chief of the military forces of the Presidency, was to be responsible only to the Directors at home. As a natural corollary the armies of the three Presidencies became as distinct and separate from each other as the Presidencies to which they belonged, and the Presidency Army system was firmly established. It must be admitted that, in those days, this was the only feasible system.

It will be convenient to summarize the advance made during this period in the evolution of the Army in India. In the course of nearly 100 years the association of Merchant Adventurers had succeeded in establishing their trade in India, under the protection of the three chief fortified positions—the island of Bombay, Fort St. George and Fort William at Calcutta. After various vicissitudes, during which the previous agencies of the Company had in turn attained and lost not only the dignity of a Presidency but also the precedence over its fellows, the three Presidencies had been definitely established. They were independent of each other, answerable only to the court of directors at home and with full sovereign rights within their own spheres, including the organization and disposal of their military forces, which had now progressed from a mere unorganized handful of miscellaneous and ill-disciplined Europeans to a force consisting of small but organized military units. The Army in India of those days was composed of Europeans recruited from England or collected locally, of half-caste Goanese Topasses and of Indian sepoys. The latter were mainly armed with their own native weapons, wore their own native dress and were commanded by their own native officers.

The second period.

At the beginning of this period the numerical strength of the Presidency Armies was not great enough to tempt the Directors of the Company to undertake any rash adventure likely to embroil the Company's local servants with the neighbouring native

The Presidency armies under the Company, 1700—1857.

rulers. The Company of Merchants was in fact what its name implied, and was no more desirous than capable of adopting an aggressive policy. But circumstances beyond the control of the Board of Directors were destined soon to convert its members from the managers of a commercial concern into the organizers of conquest. By 1741, the Bombay Army was progressing towards a higher establishment than had hitherto existed; for, besides some 700 so-called sepoys who appear to have been employed in attending the civil servants of the Company in the capacity of peons or chaprassis, we find a record of the existence of a regular regiment (*i.e.*, battalion) in the garrison of the Castle. This regiment was composed as follows:—

B. Os.	W. and N. C. Os.	Rank and File.	Followers.
1 Captain.	2 Serjt. Majs.	28 Drummers	27 Sc vants.
9 Lieutenants.	82 Serjeants.	319 European Privates.	
15 Ensigns.	82 Corporals.	931 Topasses and half-castes.	
1 Surgeon.			
26	166	1,276	27

In addition there were 2 native paymasters, 1 interpreter and 1 armourer, who were probably civilians as their rank is not mentioned. This regiment consisted of 7 companies.

In 1748, the Board of Directors decided to reorganize the artillery on the lines of the European system. The artillery had an indefinite origin, and at first it is probable

1748.—Reorganization of the Artillery. that the guns, and almost certainly that the expert gunners, were provided by the

Company's ships. At Armegaon factory, in 1628, the artillery consisted of 12 pieces of cannon and 28 soldiers who were probably infantry soldiers trained to work the guns in case of emergency. In Bombay Castle in 1668-1670 there were 21 cannon and 2 gunners, who, we must presume, were experts to supervise the amateurs drawn from the infantry. In 1711 the garrison of Fort St. George included a detachment known as the "gunners' crew" or "the gunner and his crew," which consisted of some 20 Europeans to work the guns. In 1742, when Bengal was invaded by the Mahrattas and Hoogli had been sacked, the gunner and his crew were reinforced by lascars. Even as late as 1769, after its reorgani-

zation, the artillery was still dependent on the fleet for some of its personnel. It appears that the officers and men provided by the fleet for this purpose were not always expert artillerymen and that frequently the fleet only detailed men if it could conveniently dispense with their services. The fact that the Army in India still retains certain designations traceable to a marine origin is probably attributable to its early connection with the Company's ships. It may be remarked that the practice of training infantry to man guns in certain forts in India prevailed well into the present century.

By 1748, however, the Board of Directors realized that the "gunner and his crew" was an unsuitable organization. They accordingly issued orders to the three Presidencies that each was to maintain one company of artillery with the following establishment:—

<i>British Officers.</i>	<i>British Rank and File.</i>
1 Second Captain.	4 Sergeant bombardiers.
1 Captain Lieutenant.	4 Corporal bombardiers.
1 1st Lieutenant.	2 Drummers.
1 Fireworker.	100 Gunners.
1 2nd Fireworker.	
5	110

They also appointed a captain and engineer to command all three artillery companies. This is the first C. R. A. in India of whom we have record, and his appointment was certainly an advance in organization. He was permitted to reside wherever he chose, but one cannot suppose that, with the inefficiency or entire absence of communications which were characteristic of the India of those days, his command can have been very effective. Perhaps he was only intended to be an inspector-general or technical adviser. Clearly he must have been answerable to the Board of Directors alone, and one wonders whether the Presidency authorities regarded his appointment as an infringement of the prescriptive rights over their armies which they had gained 40 years before.

If this were so, the susceptibilities of the Presidency authorities must have received another shock when, in the same year, Major Stringer Lawrence, "the father of the Indian Army," arrived at Fort St. David and took up his appointment of Commander-in-Chief of all the Company's forces in India. From the moment that the post of Commander-in-Chief in India was instituted the

1748.—Institution of the Commander-in-Chief.

THE EVOLUTION OF THE ARMY IN INDIA

Presidency armies began to improve their organization; and this appointment constitutes the first link in the long chain of the consolidation of the Indian Army, of which the last link was not forged till 1922.

Promotion in the armies was ordered to be by seniority, and this rule could not be departed from unless expressly sanctioned by the Governors of the respective Presidencies. The armies of India comprized Company's troops only—European and Indian. The European infantry was still organized in separate companies, except in the Bombay army which had adopted the battalion system. The Indian troops were still little superior to an armed force of police, and they were still commanded by their own native officers, Indian gentlemen of good birth and position:

The war with France which temporarily ceased with the Peace of Aix-la-Chapelle in 1748 had brought to India on both sides larger European forces than had ever existed before in India. Neither side could afford to increase these forces from home, where all available troops were required to take part in the operations in the main theatre of war. It was clear that the contending armies in India could only be substantially augmented by the employment of larger bodies of Indian troops, whose value, although at that time undeveloped, began to be appreciated. Although the Indian sepoy of those days, through lack of discipline and proper armament, was inferior to his better organized and disciplined European comrade, it became apparent that victory would be with the side which succeeded best in raising and developing its native forces.

The war with France again broke out, and in May 1754 the Madras Government, at its wits end for troops, appealed to the Government of Bombay for help.

1754.

appeal was promptly answered, and a force of 750 men was collected and despatched. This number was made up of 3 companies of sepoys and 450 men of the Bombay European regiment, consisting of 200 British, 100 Swiss and 150 Topasses. The despatch of this detachment is not without its significance for several reasons. It proved the readiness of one Presidency to succour another in time of need, and it betrays the diminutive strength of the military forces of India in those days. It also marks the last occasion on which we shall mention the existence of the half caste Goanese soldiers known as Topasses. It is not certain when this class of man was abolished in the army, but it is

improbable that it survived much longer after this date. It formed an element in the Army in India for approximately 100 years. The charge of inefficiency, which has been levelled against the Topasses, could no doubt be substantiated, but there is no conspicuous stain of mutiny on their record.*

The year 1754 is remarkable for the arrival of the first Royal Troops in India since the time that the island of Bombay was garrisoned by Royal Troops before its cession to the Company. Among the reinforcements

1754.

*which arrived at Madras under Admiral Watson was included the 39th Foot (now the 1st Battalion the Dorsetshire Regiment), which afterwards adopted the appropriate title of "Primus in Indis." Their arrival caused the application of the Mutiny Act to the Company's forces, and also introduced a new element into the Army in India, which, for more than 100 years after this date, was divided into King's troops, the Company's European troops and the Company's Indian troops.

Shortly before the battle of Plassey Clive commenced to reorganize the Indian troops under his command, by forming them into regular battalions with a small nucleus of British officers. He armed and dressed the men in a fashion somewhat resembling that of the Europeans. The establishment of the first battalion thus organized, nick-named the "Lal Pultan"† was as follows:—

B. Os.	B. N. C. Os.	I. Os.	Indian R. and F.
1 Captain	1 Serjt. Major.	1 Commdt.	50 Havildars
2 Subalterns	Several Serjeants.	1 Adjt.	40 Naicks
		10 Subedars	20 drummers
		30 Jemadars	10 buglers
			700 sepoys.

* Their name has disappeared from the Army in India, but it is still borne by certain humble employees of the great shipping companies whose steamers ply between England and India, and the name of "Topaz" is still familiar to British officers of the army of 1923.

† The English word 'platoon' is derived from the French word 'peloton' and both or either may be considered to be the origin of the Indian word "pultan." Shortly before the Great War of 1914-18 the British Army readopted the platoon organization and the Indian Army followed suit. The difficulty experienced by the Indian soldier of to-day in making an oral distinction between the English word 'platoon' and what he is pleased to consider the indigenous word meaning 'battalion' is as comprehensible as it is obvious—he is trying to pronounce the same word in two different ways.

making a total of 3 British officers, several British non-commissioned officers, 42 Indian officers (as we should call them now) and 820 Indian rank and file. The battalion consisted of 10 companies which included all the Indian ranks except the Indian commandant and the Indian adjutant. These two officers formed, as we should call it now, "battalion headquarters." The Indian commandant, on parade, took post with the British captain and was followed by the Indian adjutant. The British officers and non-commissioned officers formed the Staff of the battalion.

This organization is worthy of remark. It must be remembered that up to this date Indian troops, organized in companies, had been under the command of their own Indian officers. Clive had decided that the introduction of the British element was necessary, but, in making this innovation, his anxiety to adhere closely to the previous system is evident. There was still an Indian commandant, and the proportion of Indian to British officers was high. The introduction of British non-commissioned officers into Indian units is also a point to be noticed, as it remained the general rule up to the time of the Great Mutiny, and survives to this day in the Corps of Sappers and Miners.

Clive's organization was evolutionary, not revolutionary, and in analyzing it one is led to reflect that, when two such conservative races as the British and Indian combine together to form a given institution, some traces of it tend apparently to remain for many years, although the institution itself may be modified in the meanwhile. Certain features of Clive's system, have survived in the Indian army to this day.

Clive's military successes and the responsibilities which they entailed caused an augmentation of the native armies. Immediately after the battle of Plassey a second battalion was raised in Bengal. In 1759, in Madras, 6 battalions were raised on Clive's system, while in Bombay the rabble of Arabs, Abyssinians, Indian Mahomedans and Hindus, which had hitherto formed an auxiliary force to the European battalions, were organized into independent native companies in 1760 and then into native battalions in 1767. Clive's organization gradually developed, and battalions which had been supervised by a small staff of British officers but commanded by Indian commandants were converted into battalions, with British commandants and British company commanders.

The 40 years succeeding the battle of Plassey were marked by the extension of the Company's territories in every direction. The

equilibrium of military power became unstable throughout India, and the continent became a vast camp of conflicting races and warring armies. In opposition to the expressed policy of the Company's Directors at home, and even contrary to their own wishes, the force of circumstances compelled the Company's agents, in their own self-defence and in support of their own interests further to increase their armies. By 1783 the Madras Army had grown to the following establishment:—

Royal Troops.	COMPANY'S FORCES.	
	Europeans.	Native.
Infantry— 3 battalions (73rd, 78th and 101st Foot). 400 Hanoverians.	1 Regiment (1st Madras Fusiliers).	4 Regiments, Cavalry. 21 Battalions, Infantry.

At this time the officers of the Indian troops were selected from among the officers of the European regiments, and were chosen, not only for their soldierly qualities, but also from the point of view of their suitability for serving with Indian troops. With the increase in the strength of the Indian forces in all three Presidencies the British sepoy officer had become a factor of recognized importance. He had become a power in the land. The British officers of Indian units enjoyed many advantages, but, on the other hand they had no rank, with the result that they continually found themselves in positions subordinate to those of younger officers of the King's troops. The implied inferiority was resented, and it is not surprising that these officers began to assert their rights and to demand equality of treatment.

The immediate result of this agitation was the reorganization of the Company's armies which took place in 1796. At this time the European soldiers in India (King's and Company's), numbered about 13,000 while the number of Indian troops in the three presidencies was as follows:—

Bengal	24,000
Madras	24,000
Bombay	9,000

The reorganization reduced the strength of the native armies, but the most important changes were the great increase in the establishment of British officers in units, the creation of artillery battalions, and the formation of double battalion regiments from the independent battalions then in existence.

Previous to this reorganization the establishment of British officers in a battalion had been a commandant and adjutant besides 10 subalterns commanding companies, a total of 12. This was a great change from Clive's organization of 1758, and in the organization of 1796 the change was carried still further. Besides the Colonel commanding the regiment, each battalion was given an establishment of 1 Lieutenant-Colonel, 1 Major, 4 Captains, 11 Lieutenants and 5 Ensigns (besides 1 British Non-Commissioned officer), a total of 22 British officers.

The Indian infantry regiments were formed by linking existing battalions and amalgamating half-battalions of reduced regiments with them. Thus the new 12th Bengal Regiment consisted of two battalions, the first comprising the old 12th battalion and the right wing of the 21st, the second the old 17th battalion and the left wing of the 21st. This arrangement, of course, necessitated the renumbering of units within their armies. In selecting the units to be amalgamated, little if any regard seems to have been paid to considerations of sentiment or community of tradition.

First renumbering of Indian units.

to be amalgamated, little if any regard seems to have been paid to considerations of sentiment or community of tradition.

The new organization, which was not completed till 1804, improved the prospects of the British officer. Up to this time all officers had been on a general list for promotion, and the proportion of senior to junior ranks was so low that advancement was slow. By the new arrangement cavalry and infantry officers were placed on separate lists for promotion: officers of the infantry, up to the rank of Major, were placed on regimental lists for promotion: while Colonels and Lieutenant-Colonels were placed together on lists for each Presidency. An establishment for general officers was instituted. Furlough regulations were introduced and pension rules were established.

This was all to the good. But apart from the regimental promotion of officers, the regimental system as introduced for the first time into the Indian Infantry was not wholly satisfactory. The Colonel commandant of the regiment, who had direct control over

both battalions, retained in his own hands an excessive degree of authority. His control, instead of being exercised only in matters which affected the welfare and the efficiency of the regiment as a whole, was applied to details which affected battalions individually, and battalion commanders were, therefore, deprived of the power and initiative which it was desirable that they should be required to exercise. They naturally chafed at the necessity of obtaining their superior commander's sanction in such matters as the promotion of non-commissioned officers, acceptance of recruits and the granting of leave. Moreover, the 2 battalions which formed a regiment were in reality separate units. Though theoretically linked together they had no mutual interdependence, no common bond of sentiment or interest, always excepting, of course, their common exasperation at the regimental commander's unwarranted interference in battalion affairs. It will be of interest to mark in due course the steps which were taken to avoid these defects in the regimental system of 1922.

In the light of subsequent history, however, perhaps the most remarkable feature of the reorganization of 1796 was that the Indian infantry battalions were given an establishment of 22 British officers, i.e., an establishment closely approximating to that of units in the King's or Imperial forces. As a result of this, the dignity and authority of the Indian officers, which had already decreased under Clive's system, were still further diminished.

Under the reorganization of 1796, therefore, the prospects of advancement and the amenities of life of the British officer were distinctly improved; but the dignity and authority of both British and Indian officers in the Company's service were considerably impaired. These were serious defects, and it is therefore not surprising to find that the organization was not permitted to endure.

The period between the first general reorganization of 1796 and the outbreak of the Great Mutiny in 1857 has an importance, in its effect on the evolution of the Army in India, which it is difficult to exaggerate.

1797—1857.

The great acquisitions to the Company's territories, made during this period, involved the expansion of the spheres of action of the three Presidency Armies to such an exaggerated extent as to lead eventually to the abolition of those armies; and the same cause made it necessary to raise irregular corps and local contingents, some of which rendered conspicuous assistance to the forces of law and order in quelling the Great Mutiny.

THE EVOLUTION OF THE ARMY IN INDIA

By 1805, the strength of the Presidency armies themselves was approximately as follows:—

	British Troops.	Indian Troops.	TOTAL.
Bengal	7,000	57,000	64,000
Madras	11,000	53,000	64,000*
Bombay	6,500	20,000	26,500
TOTAL	24,500	130,000	154,500

Even at this early date, the Army in India was not unfamiliar with the crime of mutiny. In 1764 Bengal sepoys had mutinied for higher pay and gratuities, and European officers, in 1766, had combined together in protest against the withdrawal of batta which they considered as their due. Now a fresh crop of mutinies broke out. In 1806 there was a mutiny in the Madras Army. In 1809 European officers of the Madras Army were again guilty of mutinous conduct against Government. In 1824 Bengal troops mutinied at Barrackpore.

By 1824, the unsatisfactory nature of the reforms of 1796 was acknowledged, and the organization which had been in force before that date was restored. The Indian

1824.—Further Re-organization. Indian infantry regiments of 2 battalions which had been formed only 30 years before,

were broken up again into single battalion regiments. This of course necessitated the re-designation of the units affected, and new regiments of Indian infantry thus formed were re-numbered by Presidencies, according to the date on

Second re-numbering of units. which they had originally been raised. One of the most conspicuous defects of the 1796

organization was, however, allowed to continue—the high proportion of British officers to Indian ranks was retained, and the establishment of regular Indian cavalry and infantry (single battalion) regiments was fixed at 23.

HISTORICAL RETROSPECT

In 1824 the establishments of the 3 Presidency Armies of the Company were approximately as follows:—

	EUROPEAN.				INDIAN.				
	Horse Arty.	Foot Arty.	Engl-neers.	Infantry.	CAVALRY.		S. and M.	Pioneers.	Infantry.
					Regular.	Irregular.			
Bengal .	3 bdes.	5 Bns. 20 Companies.	47 Ofrs.	2 regts.	8 regts.	5 regts.	1 Corps.	1 Corps.	68 Regts. (Bns.)
Madras .	2 bdes.	3 Bns. 12 Companies.	...	2 regts.	8 regts.	...	...	2 Bns.	52 Regts. (Bns.)
Bombay .	4 Troops	8 Companies.	...	2 regts.	3 regts.	2 regts.	1 Corps.	1 Corps.	24 Regts. (Bns.)

* Excluding local corps, e.g., Rampur battalion and Cuttack legion.

Here for the first time we find mentioned local units and irregular Cavalry regiments. With regard to the latter a short digression is necessary.

The rulers of native states, with whom the Army in India had so long been in conflict, had generally favoured the employment of large bodies of native horsemen, partially equipped and trained and scarcely disciplined, and the mounted soldier may be regarded as indigenous to, and indeed characteristic of, the country. It is curious to find, therefore, that the Company was so slow to develop the cavalry arm when such excellent raw material was readily available. Hitherto the few Indian cavalry regiments which existed had been organized on the regular basis, officered, as we have seen, on the full European scale. After the reorganization of 1796 the proportion which the Indian cavalry bore to the Indian infantry was about 8 regiments to 59 battalions, i.e., in the ratio of 1 to 7½. By 1824 this ratio had increased to 1 to 5½. On the eve of the war of 1914-18 the ratio had risen to its maximum, namely 1 to approximately 3½. The proportion has now (1923) fallen to 1 to 6½, almost as low as that of 1796.

The increase in the number of Indian cavalry regiments in 1824 over that in 1796 was effected by augmenting the number of regular regiments, and by adding to them a certain number of irregular units. These latter were organized on what used to be known as the "silladar"† system, a more or less accurate copy of the system which was employed by the native rulers. As time progressed more regiments were raised on the "silladar" system. By 1921, when the silladar system was finally abolished, only 3

† For a description of the silladar system, See Chapter IX.

regiments, the remnant of the cavalry of the old Madras Army, still adhered to the European organization, which has now been adopted by all Indian cavalry units except the Governor of Bombay's body guard and the Aden Troop.

The essential difference between regular and irregular cavalry regiments did not, however, consist solely in the particular system, silladar or non-silladar, on which they were organized. Another important difference lay in the fact that in irregular corps the establishment of British officers was reduced to a minimum. By this means one of the chief defects of the 1796 organization was avoided.

From the earliest times there are examples of the employment of the units of one Presidency army in what may be regarded as

Further effects of the territorial expansion.

the proper sphere of action of another Presidency army. But the liability was only accepted in time of war. During hostilities the sepoy was ready and indeed eager to serve in territory outside his Presidency. But when with his assistance this territory had been pacified and annexed to the territories of the company the sepoy resented the withdrawal of the field service concessions to which he had become accustomed, and insisted that these concessions were still due to him if he was called upon to serve outside his own Presidency area in what appeared to him to be foreign territory. The result was that service in the newly acquired territories was not merely unpopular, but caused serious discontent. The question as to what troops were to occupy the new territories became an embarrassing one for the Local Government to decide. Under the Presidency system it was obvious that such territory must be garrisoned by the troops of one or other of the Presidency armies—the administration of a mixed Presidency force in peace time would have presented a difficult problem. The difficulty was further complicated by the idiosyncracies of the Presidency armies themselves. The Bengal army consisted of class battalions composed of men of high caste; the units of the Madras and Bombay armies were of mixed classes of men of lower caste. In the Bengal army no provision was made in the regimental lines for the men's families, and the sepoys were accustomed to visit their families at regular intervals. In the Bombay army accommodation was provided for a certain proportion of families; in Madras, on the other hand, all the men's families accompanied the battalion wherever it moved, but the sepoys were expected to pay for the journeys of their families on relief.

The high caste men of Bengal had a serious objection to being transferred across the sea. The Madras sepoy, on the contrary, had no such objections, and this probably accounts for the fact that a large proportion of the force which took part in the 1st Burmese War consisted of the Madras army and that Burma eventually became one of the stations of the Madras army.

Bengal troops had also taken their share in the operations which resulted in the conquest of Sind by Sir Charles Napier, and when that province was annexed in 1843 it was the design of Government that units of the Bengal army should garrison it. Bengal troops, however, refused to serve there, so far from their homes, without compensatory allowances. Serious mutinies broke out in and around Ferozepore among Bengal units detailed to proceed to the hated locality, and a Madras battalion ordered in relief broke out into open mutiny in Bombay when it learned that the Sind allowances were to be discontinued. Eventually Bombay troops were sent to garrison Sind, the province became a part of the Bombay Presidency and, as a natural corollary, one of the stations of the Bombay army.

Even service in the Punjab was unpopular with the Bengal sepoys. They considered that service outside their own Presidency, even in peace, entitled them to special allowances: and the withholding of the allowances after the annexation of the Punjab was also the cause of insubordinate conduct amounting, in not a few cases, to open revolt.

Thus the Indian armies were familiar with the crime of mutiny, a familiarity which culminated with such baneful effect in 1857. It would, however, be unreasonable to impute all the disastrous events of the Great Mutiny to the Presidency system of army organization. There were many other contributory causes of which the burden of conquest, the dearth of land communications and, especially, the unrestrained efforts of revolutionaries and sedition mongers were not the least important. Nevertheless as a result of the parochial sentiment and exclusive loyalty which it fostered, and the mistaken views of vested rights and interests which it encouraged, the Presidential system must bear its full share of blame and responsibility.

To meet the difficulties involved in arranging for the occupation of newly acquired territory one of the expedients adopted was to raise local bodies of troops for a particular service in particular localities. Of these perhaps the best known are the Hyderabad

Further categories of the Army in India, 1857.

contingent and the Punjab Irregular Force which afterwards became the Punjab Frontier Force. Thus, at the end of this period we find that the Army in India comprised certain units of the British Imperial Army (King's Royal Troops), the Company's three Presidency armies, consisting of British and Indian units, and various local forces and contingents. The strength of the Army in India immediately prior to the Mutiny of 1857 is shown in Appendix I.

The third period

On the 1st November 1858, by Royal Proclamation, Queen Victoria assumed the direct Government of India and the East India Company practically ceased to exist.

The Presidency armies under the Crown, 1858—1894.

At once two problems presented themselves for solution, namely the status and organization of the European and Indian forces, respectively, of the late company. There were two alternatives to be considered in the solution of the first problem, namely whether the British forces of the Army in India should henceforth form a portion of the Imperial British Army, the units of which would take their turn in garrisoning India, or whether they should become localized forces maintained solely for service in India. There were advocates for both alternatives, but it was at last decided that the "British Army serving in India" should form part of the Imperial British Army.

The decision necessitated the transfer of the late Company's European troops to the service of the Crown. The distinction between "Royal Troops" and the "Company's European Troops", which had existed for more than 100 years disappeared.

Reorganization of the British forces.

The Company's European infantry became British regiments of the line, and the Bengal, Madras and Bombay European artillery were amalgamated with the Royal Artillery. This reorganization of the British forces was not completed till 1860. It was decided that their establishment in India should not exceed 80,000 men.

In 1861 the reorganization of the Indian troops was taken in hand. Some cavalry and infantry units were disbanded, others were amalgamated, and all the Indian artillery, with some notable exceptions, was abolished. All the cavalry was now

1861.—Reorganization of Indian Forces.

organized on the silladar system, except the three regiments of the Madras army; and the establishment of British officers of regular cavalry and infantry regiments was reduced to 6 per unit.

This reorganization of the Indian troops took some years to effect, and on its completion the establishment of the Indian forces in India was as follows:—

The Indian Forces, circa 1865.

	Cavalry regiments.	Artillery Batteries.	Sappers and Miners Corps.	Infantry regiments of single battalions.
Bengal Army . . .	19	...	1	49
Madras Army . . .	4	...	1	40
Bombay Army . . .	7	...	1	30
Punjab Frontier Force .	6	5	...	12
Hyderabad Contingent .	4	4	...	6
* Other local corps .	2	...	..	5
Total .	42	9	3	142

* Namely, 2 regiments of Central India Horse and the infantry of the Deoli and Erinpura Irregular Forces, Malwa and Meywar Bhil Corps and the Bhopal Levy. At this time the Merwara Battalion had been temporarily converted into Military Police.

The year 1861 also witnessed the introduction of three Presidency "Staff Corps." In the old Indian armies British officers belonged to regimental cadres, and in practice it had been found that the establishment of these cadres, large though they had formerly been, were insufficient to bear the strain caused by the absence of officers serving in civil employ or on the staffs of the armies. Moreover, British officers had a right to promotion in regimental succession, of which nothing could deprive them but sentence by court-martial; but officers of one regiment had no claim to equality of promotion with officers of another. Thus promotion in one regiment might be faster than in another, and the officers of the first would, through no merit of their own, obtain seniority over those of the second. There was thus a marked disparity in the rate of promotion within the various armies.

The institution of the 3 Staff Corps was intended to remove both defects. In the first place it established a corps of officers in each Presidency of sufficient strength to ensure that regimental establishments would be maintained, in spite of the drain made on them by the departure of officers on extra regimental duty. Secondly, from this time, promotion to higher army rank was governed by length of service. The officers of the several Staff Corps were placed on separate seniority lists. By this means equality in promotion was assured.* By a fiction, which tradition may have handed on since the time Clive organized regimental staffs for his newly formed Indian battalions, officers held "staff" appointments in the combatant units with which they were serving. The three Staff Corps consequently consisted of a body of military officers serving on the staff of the army or of units, and in military departments or in civil employ.

In assuming direct control of the Government of India, the British Crown had also accepted direct responsibility for the security of India. A large portion of the British army was already serving outside the United Kingdom in the Colonies and Dependencies, and the added liability of having to provide an army of any number up to 80,000 men, as the garrison of India, brought to a head the problem of maintaining such large forces overseas. Indeed, the maintenance of overseas garrisons in India and the Colonies became the chief duty of the Imperial British Army in peace.

This problem was solved by Mr. Cardwell's scheme of 1872. The two portions of the British army serving at home and abroad were approximately equal. Mr. Cardwell's first step was, by a little adjustment, to equalize the two portions. This cleared the way for the next step, by which infantry regiments of the line were linked together in pairs in "brigade districts." Some of these regiments had consisted of 2 battalions each since 1859, but the others like the Indian infantry regiments of those days, had existed as single battalions. The intention was that, out of each pair of battalions thus linked together, one battalion should serve at home and be responsible for supplying with men the other battalion serving abroad, in India or elsewhere. As was natural, this revolutionary

* But it did not remove the inequality in the rank of officers holding appointments in different corps. Thus a major in one regiment might be a company officer, whereas, in another, a captain might be a company commander. The equalizing of rank and appointments remained an insuperable difficulty until the introduction of the regimental system into the Indian infantry in 1922. An effort has now been made (1923) to remove the most glaring disparities.

change, which linked together, and made mutually supporting, battalions which had not hitherto had any connection with each other, was highly unpopular in the British Army and led to much friction and heart burning, from the feeling that the old regimental individuality and esprit de corps would suffer in the process with results disastrous to military efficiency.

Under the Cardwell scheme, the "brigade districts" each contained 2 line regiments (linked single battalions, one at home and one abroad), 2 militia battalions and the volunteer battalions of the area. This organization was maintained until 1881, when the regimental organization was introduced into the British infantry. All the constituents of the late brigade districts were welded into regiments, and these regiments were given territorial designations which disguised, beyond recognition, the numbers and titles which formerly indicated the units which they now comprised. Thus in 1872 the Cardwell system laid the foundation stone of the unification of the British Army—an example which the Indian armies were slow to follow.

In the conduct of the Afghan War of 1878—80 many defects in the military system of India became manifest. In 1879 an Army Organization Commission was assembled by Lord Lytton to explore the avenues by which military expenditure might be decreased, and to recommend measures to improve the efficiency of the Army in India for war. At this time the strength of the 3 Presidency armies was approximately—

British Troops	65,000	} 200,000.
Indian Troops	135,000	

The immediate result of the commission's recommendation was the addition of 1 British officer to Indian cavalry and infantry regiments, and the reduction of the strength of the Indian armies by 4 cavalry regiments and 18 infantry regiments. At the same time the strength of each cavalry regiment was increased from 499 to 550 of all ranks, and of each infantry (single battalion) regiment from 712 to 832. •

But the most important recommendation of the commission was virtually to abolish the Presidency Armies—the seed, which 16 years later bore fruit in the commencement of the union of the armies. Before this was effected many other suggestions were made, and it may be of historical interest to compare them in the

table given in Appendix II as an indication of the influence exercised by the Presidency system over the minds of those in authority who were engaged in securing its abolition. It will be noticed that the idea of separating Burma and Sind from their parent Presidencies was not mooted till quite a late date.

Certain important changes had, however, previously taken place which cleared the way for the eventual union of the armies. In 1864 the military accounts departments of the 3 Presidencies had been consolidated under the Military Department of the Government of India, and the remount departments were amalgamated in 1876. And while the abolition of the Presidency armies was under consideration still more important changes were carried out. In 1884 the 3 ordnance departments were united under the Government of India, a partial reorganization of the transport services was effected and commissariat regulations, applicable to the whole of India were compiled. In 1886 the Punjab Frontier Force was transferred from the control of the Government of the Punjab to that of the Commander-in-Chief in India.

Again in 1886 a change in organization took place which reflected one of the main principles of the Cardwell scheme. Indian infantry regiments (battalions) were linked together in groups of 3 or sometimes 2 battalions, and were given permanent regimental centres at which it was intended that one battalion of the group should always be located. Recruits were now enrolled for a group, and, although a recruit might be trained and serve with one particular battalion, he was liable to be called upon to transfer to any other battalion of the group. The liability, however, was not a serious one, as it was only intended to enforce it in time of war. By this means a supply of men from one battalion was made available to maintain at strength another battalion of the group in case of emergency. This organization had the defect that one battalion could only be reinforced at the expense of another, but it was a great advance on any previous system. The groups of linked battalions were in no sense regiments, but the common regimental centre, and the dependence on each other for assistance, formed a certain bond of mutual interest between units which would otherwise have remained isolated.

In 1886—87, for the first time, a reserve for the Indian armies was formed. Previously, military pensioners seem to have been regarded as a potential reserve in case of need, but great reliance can scarcely have

1886-87.—First Indian Army Reserve.

been placed on them, since the first pension was then only earned after 40 years' service. In 1874 the Commander-in-Chief, Lord Napier of Magdala, advocated a graduated scale of service for pension ranging from 20 to 40 years, and recommended that men pensioned on that scale should join the reserve and be called up for one month's training annually, during which time they would be entitled to the full-pay of their respective ranks.

The terms of the reserve service now introduced were briefly that there were 2 classes—an active and a garrison reserve. Service in the reserve was to be voluntary, men of not less than 5 years and not more than 12 years' colour service being eligible for the active reserve, the garrison reserve being made up of men who were pensioned at 21 years' colour service, or who had completed a combined colour and reserve service amounting to that period. The active reserve was to be called up for 1 month's training every year, and the garrison reserve for 1 month's training every alternate year. This reserve system was at first applicable to infantry only, but was afterwards extended to cavalry, artillery, and Sappers and Miners. Except for modifications in the actual terms of service, and in the establishment of the reserve, dictated by the policy of the time and the exigencies of the financial situation, this system has remained unaltered to the present day for all Indian units except the infantry, whose new reserve organization was introduced in 1923.

In 1891 the 3 Presidency Staff Corps were united in one Indian Staff Corps.

The strength of the Army in India immediately before the abolition of the Presidency Armies is approximately that of the year 1887, of which details are given in Appendix III.

Establishments 1887.

Fourth period, 1895—1920

The Presidency Armies were abolished with effect from the 1st April 1895 by a General Order of the Government of India in the Army Department, No. 981, dated 26th October 1894.

1896.—Abolition of the Presidency Armies.

This order divided the "Army of India" into the 4 following Commands:—

Punjab (including the North-West Frontier and the Punjab Frontier Force).*

Bengal.

Madras (including Burma).

Bombay (including Sind, Quetta and Aden).

These were placed under the command of Lieutenant-Generals "Commanding the Forces Punjab, Bengal, Madras and Bombay," who were to be all under the direct command of the Commander-in-Chief in India. Each Lieutenant-General was invested with certain powers and granted an Army and Departmental Staff, and it was expressly stipulated that the business formerly transacted by the Military Departments of the Government of Madras and Bombay was now to be transacted by the Military Department of the Government of India, whenever it could not be disposed of by the Lieutenant-General Commanding or by the Commander-in-Chief in India.

Each Command was divided into 2 or 3 1st Class Districts (of which the Punjab Frontier Force constituted one) and a number of 2nd Class Districts, varying between 2 in the Punjab Command to 6 in the Bengal and Madras Commands. The British troops allotted to the several Commands were those already stationed within those Commands, while the composition of the Indian troops was as shown in Appendix IV, which also shows the approximate strength of the Army in India at that time (1895).

The figures in Appendix IV are exclusive of the following local corps which were under the control of the Government of India and did not belong to any Command:—

The Hyderabad Contingent.

2 Regiments of Central India Horse.

The Malwa Bhil Corps.

The Bhopal Battalion.

The Deoli Irregular Force.

The Erinpura Irregular Force.

* "The Punjab Frontier Force and Frontier District" in 1902, under the command of Major-General Sir C. C. Egerton, C.B., D.S.O., comprised—
The Kohat Kurram Force.
Derajat District.
Peshawar District.
Malakand Force.

The Meywar Bhil Corps.

The Merwara Battalion.

At first sight it may appear that the abolition of the Presidency armies as affected by the G. G. O. of 1894 was a revolutionary measure, but in reality it was not so. It will be observed from Appendix II that the organization now adopted bore a closer resemblance to the proposals of 1879, 1881 and 1888 than to those of 1890 and 1892. In the former the names of the Presidency armies were carefully safe-guarded. In the latter either these names were entirely discarded or additional forces were introduced, the designations of which were entirely foreign to the ancient nomenclature of the Presidency armies. One of the reasons for discarding the proposal of 1892 was the fact that, if adopted, an undue disparity in strength would exist between the Army of the North and the strengths, respectively, of the Armies of the West and South. The principle was insisted upon that the forces in the new Commands should conform to each other as nearly as possible in numerical strength. Stress was laid on the intention to maintain to the fullest extent the separation of the Madras and Bombay armies from each other and from the Bengal armies. And it was pointed out that the Bengal army would undergo no nominal change, except that the troops serving in Bengal proper would ordinarily be kept apart from those serving in the Punjab. The forces in the various Commands were in fact to be localized for service in those Commands, and the Indian units included in them, did, in fact, retain the numbers and designations which they held in the old Presidency armies.

It is true that the new organization brought all the forces under the direct control of the Commander-in-Chief in India, but this was only a further development of the changes which had already occurred between 1864 and 1892. The Commands were still as separate from each other as the old Presidency armies had been, and they included within their areas districts which had little or no connection with each other, either territorial, sentimental, racial or strategical. More drastic measures were required to complete effectively the unification of the Army in India.

Lord Kitchener took up his appointment as Commander-in-Chief in India on the 28th November 1902, and at once commenced to consider and frame a scheme for the re-organization and redistribution of the Army in India.

1903-1914.—Lord Kitchener's Reforms.

In the meanwhile he carried out the following important changes:—

- (1) On the 1st January 1903* the designation, "Indian Staff Corps," was abolished, and officers belonging to that corps were designated "Officers of the Indian Army." It was realized that the former title was a misnomer, because the bulk of the appointments held by the officers of that Corps were regimental, not staff, appointments. From that time forward the British officers, as well as the rank and file of Indian units, belonged to one corps, "the Indian Army."
- (2) On the 9th January 1903 the Burma 1st Class District was separated from the Madras Command and constituted a separate independent Command, designated the Burma Command.
- (3) With effect from the 1st April 1903 the Hyderabad Contingent was broken up and delocalized. One cavalry regiment, the 3rd Lancers, Hyderabad Contingent, was absorbed into the other three, which were transferred to the Bombay Command, while the 6 infantry regiments of the Contingent were transferred to the Madras Command. (G. G. O. No. 211 of 13-3-23).
- (4) On the same date, 1st April 1903, the Punjab Frontier Force and Frontier District and its territorial area were distributed between the Peshawar, Kohat, and Derajat Districts (G. G. O. No. 237 of 1903).
- (5) In an Indian Army Order No. 181, dated the 2nd October 1903, the new designations and numbers of all units of the Indian Army were published and ordered to have effect from the date of the order. It is unnecessary to discuss all the details of the scheme, but the result is shown in Appendix V, where the designations given in 1903 are compared with those which existed previously, and with those which afterwards replaced them in the renumbering of 1922. It will suffice to add that, in the renumbering of 1903, all units of the Indian Army were numbered in one sequence according to their arms

3rd and 4th Renumbering of Indian Units.

* G. G. O. No. 1 of 1903. Nevertheless officers of the Indian Army still draw "staff" pay of their regimental appointments.

(excluding Gurkha battalions which were numbered separately) and all mention of the designations of the old Presidency armies was omitted.*

These important measures, carried out within less than a year after Lord Kitchener arrived in India, were almost sufficient of themselves to complete the union of the Indian Army. But more was to follow.

On the 5th November 1903 Lord Kitchener's proposals for the reorganization and redistribution of the Army in India were communicated to the Government of India. Four great principles were enunciated in the proposals:—

- (i) That the main function of the army was to defend the North-West Frontier against an aggressive enemy;
- (ii) That the army in peace should be organized, distributed and trained in units of command similar to those in which it would take the field in war;
- (iii) That the maintenance of internal security was a means to an end, namely, to set free the field army to carry out its functions;
- (iv) That all fighting units, in their several spheres, should be equally capable of carrying out all the rôles of an army in the field, and that they should be given equal chances, in experience and training, of bearing these rôles.

On his arrival in India Lord Kitchener had found that the Command areas and district areas in which the Army in India was distributed were mere geographical divisions of varied extent, with a different number of troops in each. They had been fixed without any reference to a matured plan of adapting peace formations to the requirements of war. The troops, scattered through a number of

* The Committee on whose recommendations the renumbering was based, was composed of the following officers:—

President.

Major-General D. J. S. MACLEOD, C.B., D.S.O., M.G.C., Commanding the Forces Bengal.

Members.

Brigadier-General B. DUFF, C.B., C.I.E., Deputy Adjutant General in India.

Colonel C. F. FRANCIS, A.A.G.

Colonel H. N. McRAE, C.B., A.D.C.

Secretary.

Lieutenant-Colonel W. R. BIRDWOOD, 11th Bengal Lancers, Assistant Military Secretary and Interpreter to His Excellency the Commander-in-Chief in India.

small military stations, could not be collected for training in the tactical formations in which they would be employed in war. The troops were localized in the new commands precisely as they had been in the old Presidency areas, in all of which, except the Punjab Command, no experience of North-West Frontier conditions could be gained.

The preliminary steps that were taken to level up the army have already been described. The central feature of Lord Kitchener's original scheme was to divide the Army in India into 3 Army Corps, exclusive of Aden, the Burma District, Chitral, Kohat and the Derajat. Each Army Corps was to comprise 3 Divisions, each of which was to be complete in field army troops and in troops for internal defence. The Army Corps distribution was to be as follows:—

Northern Army Corps—

- 1st (Peshawar) Division.
- 2nd (Rawalpindi) Division.
- 3rd (Lahore) Division.

Western Army Corps—

- 4th (Quetta) Division.
- 5th (Mhow) Division.
- 6th (Poona) Division.

Eastern Army Corps—

- 7th (Meerut) Division.
- 8th (Lucknow) Division.
- 9th (Secunderabad) Division.

It will be observed that, under this distribution, all trace of the names of the Presidency armies is obliterated and that Aden, Burma, Sind and Baluchistan have been finally separated from the Presidency areas to which, for so long, they had belonged.

The establishment of troops in India in 1903 was almost exactly sufficient to fill the new formations, but the concentration of troops towards the North-West Frontier to meet aggression, and elsewhere in India to secure training in tactical formations, necessitated the abandonment of some 34 stations, the move of a large number of troops, and the building of new quarters for them elsewhere. For financial reasons this was a serious objection to the scheme, which could thus only be carried out gradually.

However, on the 1st September 1904 the Secretary of State for India sanctioned the carrying out of any part of the scheme which did not involve extra expense. The 9 Divisional Commands were thus established, and the Madras Command, then commanded by Lieutenant-General Sir C. Egerton, which was superfluous to the scheme, was abolished by an order of the Secretary of State, dated 28th September 1904.

This organization was not, however, completely adopted, and by the beginning of 1905 the following was the distribution of the Army in India:—

Northern Command—

- 1st (Peshawar) Division.
- 2nd (Rawalpindi) Division.
- 3rd (Lahore) Division.
- Kohat, Bannu and Derajat Brigades.

Western Command—

- 4th (Quetta) Division.
- 5th (Mhow) Division.
- 6th (Poona) Division.
- Aden Brigade.

Eastern Command—

- 7th (Meerut) Division.
- 8th (Lucknow) Division.

9th (Secunderabad) Division } not included in a Command.
Burma Division.

The preceding organization was again replaced by a new one, and by 1908 we find the Army in India divided up as follows into two armies only:—

Northern Army—

- 1st (Peshawar) Division.
- 2nd (Rawalpindi) Division.
- 3rd (Lahore) Division.
- 7th (Meerut) Division.
- 8th (Lucknow) Division.
- Kohat, Bannu and Derajat Brigades.

Southern Army—

4th (Quetta) Division.
 5th (Mhow) Division.
 6th (Poona) Division.
 9th (Secunderabad) Division.
 Burma Division.
 Aden Brigade.

At the head of each of the two Armies was a General officer, who was responsible for command, inspection and training, but had no administrative functions or responsibility, and consequently, no administrative staff. The ten divisions constituting the two Armies were directly subordinate to Army Headquarters for administrative purposes, and there was little, if any, decentralization of administrative duties.

The detailed organization of the Army as thus re-constituted is shown in Appendix IX. Briefly, its allotment was as follows:—

Allotment.	Formation.	Strength.
Field Army	Army Troops	152,000 men.
	9 divisions	
	8 cavalry brigades	
Internal Security	3 independent frontier brigades	82,000 men.
	Troops allotted to internal security areas.	102 guns.

The strength of the Army in India when Lord Kitchener's scheme was under consideration is shown in Appendix VI.

The redistribution scheme, as recommended by Lord Kitchener, had not been completely carried out when the Great War of 1914-18 broke out, but it is to the observance of the principles which he laid down, and by which the union of the Army in India was finally completed, that we must largely attribute the fact that the Army in India took up its responsibilities in the great struggle as promptly as it did.

This is not the place to dilate on the share taken in the Great War by the troops contributed in India, but that it was no small share will be proved by a comparison of the two tables given in

Appendix VII. On the 1st August 1914, the total strength of the fighting services of the Indian Army in all ranks was 155,423. By the time of the armistice this had risen to approximately 573,484. The latter number included large Indian armies serving in Palestine, Egypt, Iraq, Salonika and elsewhere in the world outside India. India, of course, only paid for her normal army. The remaining troops were regarded as fighting the Empire's battles and were paid for by His Majesty's Government.

Fifth period, 1921 to present day

As a result of certain defects still remaining in the military system, which became manifest in the conduct of the Great War of 1914-18 a reorganization of the Army in India was commenced in 1921 and, though still in progress (1923), is rapidly nearing completion. To chronicle in detail the causes which led to this reorganization, the principles on which it was based, and to describe the constitution of the Army in India of the present day, is the purpose of the succeeding chapters of this book. In concluding the present chapter, however, it is desirable to explain why the latest stage in the evolution of the Army in India can be described as the "period of consolidation."

The Army in India, in fact though not in name, has existed for nearly 300 years. We have seen how at first it consisted of European troops only; how it increased until it was divided into three separate and individual bodies called Presidency Armies (besides localised troops) each Army being still further sub-divided into Royal troops, Company's European troops and Company's native troops; how in 1860 one of these sub-divisions was obliterated by the absorption of the King's and the Company's European troops into the "British Army in India", the Indian troops becoming at the same time part of Her Majesty's Forces; and how, from that date measures were taken to undermine the sovereignty of the Presidency Armies until, by their abolition in name and in fact, a united army was formed.

Since the Great War the process of evolution has advanced a further stage. The regimental system has been introduced into the Indian infantry (excluding Gurkha Regiments which already consisted of two battalions) and the battalions of these newly formed regiments, unlike those of 1796, have a mutual bond of interest in the training battalion, to which each active battalion of the regiment

contributes a proportion of personnel and on whom each battalion is ultimately dependent for its efficiency. Indian cavalry regiments are linked together in groups. Even the Gurkha regiments are linked in pairs and may rely on each other to a certain extent for support in time of emergency. Artillery training centres have been formed for the supply of recruits and reinforcements for artillery units and the two Divisional Signal Companies, formerly independent, are now combined in the Indian Signal Corps.

The table given in Appendix VIII discloses a further significant phenomenon, the intermingling of British and Indian ranks in the same unit. From early times there has always been a certain proportion of British ranks in Indian units. More recently the process has been reversed and Indian combatants have been introduced into British units. This dilution has now been carried to such an extent that, excluding British officers, the only types of combatant units in the Army in India which do not include both races in their ranks are British and Indian Cavalry, Indian Infantry and the Tank Corps. Lastly, the places of British officers are being filled by Indian officers who hold the King's Commission and are in every respect on an equality with their British comrades. If the previous stage of the evolution of the Army in India is appropriately described as the period of union, it is not unjustifiable to designate the period ending with the present day as the period of consolidation. The next phase, it may be anticipated, will be one of increasing Indianization, which is already claimed as the natural outcome of the stimulus lent to Indian political aspirations by the grant of the constitutional reforms of 1919: and as we have seen, the process of Indianizing the Army in India has already commenced.

Chapter II

The Great War and period of reconstruction

IN 1914, when the Great War began, the organization of the Army in India and the distribution and allotment of troops were those introduced by Lord Kitchener, which have been described in the preceding chapter.

1914.—The outbreak of the Great War.

It must not, however, be assumed that in the interval there had been no development or diversification of Army policy. Changes, both in the external and internal situation, had led to the appointment in 1912 of an Army in India Committee, under the presidency of Field Marshal Lord Nicholson, whose primary task was to consider and report on the numbers and constitution of the armed forces which should be maintained in order to meet India's military obligations, as then envisaged. This committee completed their enquiries early in 1913; but, before any action could be taken upon their recommendations, the Great War of 1914-18 broke out, and, by its unprecedented character and extent, rendered nugatory the results of the committee's labours.

The system of command devised by Lord Kitchener was based on the premise that the troops allotted to divisions would be concentrated within their respective divisional areas. This concentration, however, had been dependent on the readjustment of accommodation proposed by Lord Kitchener in 1904; whereas on financial grounds immediate readjustment had been found impracticable. Consequently, troops allotted both to war divisions and to internal security areas were to a large extent stationed outside their respective areas of training and duty. Under the imperfect execution of Lord Kitchener's proposals, therefore, adequate and continuous training for war was impracticable, owing to the dispersal of troops. Defects of the system itself were that Army Headquarters, dealing direct with divisions, was burdened with the consideration of minor administrative detail; divisional commanders were similarly burdened with administrative work to the

The defects of Lord Kitchener's system.

detriment of training for war; no provision had been made for the command or administration of internal security area troops after the departure of the field army on field service; and on mobilization, therefore, no machinery existed to ensure continuity of normal military administration in India itself.

The exceptional character of the Great War of 1914-18, and the strain which it imposed upon the resources of every country engaged in it, revealed, however, even greater defects in the organization of the Army in India than those which have so far been mentioned, and grave defects also in its equipment. The first and most serious defect was that the ancillary services of the Army were either non-existent or undeveloped. On this account only 7 of the nominal complement of 9 field army divisions were actually capable of immediate mobilization. Peace establishments were generally so inadequate that to effect mobilization of the war divisions internal security units had to be largely depleted. Technical and administrative personnel required on mobilization had to be found from the establishments of combatant units. On the other hand, the standard of equipment in the Indian Army before the war was so low that India's military forces were at a grave disadvantage when they found themselves fighting in conjunction with troops equipped on a modern basis. Neither the Air Force nor the Mechanical Transport service existed, while technical equipments were largely out of date. In respect of mechanical equipment generally, machine guns, artillery, hospital equipment and medical establishments, the Army in India was in a markedly inferior condition to the European armies. The divisional artillery was inadequate to modern requirements, and the so-called heavy artillery was obsolete. Sufficient machinery for reinforcements was also lacking. The basis of the reserve was soon discovered to be thoroughly unsound. There was no organization in existence to cope with the recruitment of fresh personnel, or with their training, on the scale required to meet heavy war wastage and to permit of large expansion. Finally, one great and far-reaching cause of weakness was that India's indigenous resources had not been sufficiently developed and she was, therefore, largely dependent on outside sources of supply for munitions of war.

It is not within the scope of this book to relate the manner in which these defects manifested themselves during the Great War, or to describe the unfortunate consequences which at one time or another resulted from them. As everyone knows, the allied armies

The start of the reorganization.

were ultimately successful; and it is sufficient to say that the lack of initial preparation in the Army in India was actually overcome by measures improvised to the best of our military advisers' capacity as the war went on. But the need for improvisation clearly delayed achievement, and involved in the long run heavier expenditure than might otherwise have been necessary. The lessons of the war were too clear to be neglected, and, when the war came to an end, the military advisers of Government were ready to embark upon a definite policy of reorganization and reform. The task could not be commenced immediately, since after the armistice large bodies of Indian troops continued to be employed on His Majesty's service in the mandated territories and other overseas theatres, while the Government of India were further preoccupied by the outbreak of the third Afghan War and the operations in Waziristan.

In 1919 however, a strong Army in India Committee was appointed, Lord Esher being president, with the following terms of reference:—

The Esher Committee.

1. To enquire into and report, with special reference to *post-bellum* conditions, upon the administration and, where necessary, the organization of the Army in India, including its relations with the War Office and the India Office, and the relations of the two offices to one another.
2. To consider the position of the Commander-in-Chief in his dual capacity as head of the Army and Member of the Executive Council, and to make recommendations.
3. To consider and to report upon any other matters which they may decide are relevant to the enquiry.

The Committee presented their report towards the close of 1920. About the same time, General Lord Rawlinson became Commander-in-Chief in India: it had also become possible to assemble at Army Headquarters a staff composed largely of officers who had gained distinction and invaluable experience during the Great War: and under these auspices, the process of reorganization began to take a practical shape. The general scheme which was evolved had a wider scope than the recommendations of the Esher Committee, since the terms of reference to that Committee had been limited, and, apart from this, there were many questions both of principle

Lord Rawlinson's appointment as Commander-in-Chief in India.

and detail which it was impracticable for the committee in the time at their disposal to take fully into consideration. But it is important to remember that the Esher Committee were largely responsible for improving the terms of service of the Indian ranks of the Army in India, and for placing the improvement on a firm basis. The Indian soldier and the Indian officer with the Viceroy's commission are now fed, clothed, housed, and, in the mounted branches, horsed by the State, on an adequate standard: and their pay and pensions are now assessed on a scale which subsequent experience has shown to be sufficient to obtain recruits in the number required and to secure contentment and efficiency among those recruited. It would be hard to exaggerate the importance of this step. It was fundamental to the success of the Army reforms and greatly facilitated the task of the reformers.

The process of reorganization was, in its more technical and specific aspect, complicated and laborious. It continued throughout 1921 and 1922: and at the close of 1922 the results so far achieved were subjected to the scrutiny of Lord Inchcape's Retrenchment Committee. The further ordeal was necessary. In the economic conditions prevailing in the years immediately after the war, the cost of an army, organized and equipped on standards deduced from the experience of the war, was greater than India could reasonably afford. From the purely military point of view, of course, retrenchment was unwelcome. But it was satisfactory that the pruning-knife of the Retrenchment Committee was applied to an organization which by that time was, in conception at any rate, complete in its several parts. The Royal Air Force had been added to the defence services of the Indian Empire: Mechanical Transport and Signal services had also been added: the Artillery arm had been reorganized: and last but not least the staff and commands of the Army had been reconstituted in accordance with modern military ideas. Further, while the Retrenchment Committee recommended large reductions in military expenditure as a whole, they were careful to suggest that in carrying out their proposals the military advisers of the Government of India should be given a certain discretion, the object of the Committee being to ensure that in the result no vital service of the Army should be unduly weakened, and that, if the Army in India were reduced in total strength, it should nevertheless retain the essential features of the organization of a modern army and the capacity for expansion in war.

Before concluding this brief retrospect, it is essential to refer to the general political conditions under which the post-war reorganization of the Army in India was carried out. Under the constitution established by the Montagu Chelmsford Reforms, military expenditure was excluded from the control of the Indian Legislature; but it was inevitable that the elected representatives of the people should display a strong interest in military affairs and, by such methods as were open to them, seek to exercise an indirect influence on military administration and the Army budget. An early indication of this tendency was afforded by the request that the Legislative Assembly should be given an opportunity of expressing their views on the report of the Esher Committee. The request was granted and, in March 1921, the Assembly passed a number of resolutions on the subject, of which the following bore directly upon the Army reorganization then in progress—"That the purpose of the Army in India must be held to be the defence of India against external aggression and the maintenance of internal peace and tranquillity. To the extent that it is necessary for India to maintain an Army for these purposes, its organization, equipment and administration should be thoroughly up to date and, with due regard to Indian conditions, in accordance with present day standards of efficiency in the British Army, so that when the Army in India has to co-operate with the British Army on any occasion there may be no dissimilarities of organization, etc., which would render such co-operation difficult." The resolution was significant because of the implied insistence that India's military obligations should be limited to maintaining an Army sufficient for Indian requirements only. The Esher Committee had not, however, intended to suggest that India should assume a greater military liability than the protection of her own territories against external attack and internal disturbance, and no greater responsibility than this had been required of India in the past.* In fact, it is known to be a fundamental condition of India's connection with the British Empire, that, if India is exposed to attack which her own resources cannot effectively repel, His Majesty's Government, if it is humanly possible to do so, will come to her assistance with the armed forces of the United Kingdom. The real importance of the resolution quoted lay in the claim which it made; as on behalf of Indian political opinion, in the newly established political conditions, that the defence services of India should be as efficient as

* Cf. Section 22 of Government of India Act, 1919.

those of western countries: and also in its acceptance of India's liability to co-operate on future occasions with the British Army. The doctrine enunciated in the Resolution was sound: but there were many difficulties to be overcome in putting it into practice. As has been shown, there was a limit to India's financial capacity to bear the new expenditure entailed by a higher standard of preparation for war: and it must not be forgotten in this connection that, as a result of the Great War, the cost of all Army services had greatly increased. The pay of every class of personnel had had to be raised. In the case of Indian ranks the rise was regarded as more or less permanent: in the case of British ranks the enhanced rates were certain to endure for several years. Modern equipment was expensive. Finally the problem of India's defence taken by itself had become more complicated. The safety of India depends primarily on the protection of the North-West Frontier: and the frontier tribes after the war were more formidable than they had ever been before, owing to better armament, more plentiful supplies of ammunition and a great advance in tactical skill. On the other hand, old internal dangers had been revived in a new form by the non-co-operation movement, and the insidious attempts from alien sources to propagate in India the principles of Bolshevism.

Chapter III

The Principles of the Post-War Reorganization

THE first requirements of the re-construction as deduced from the considerations which have just been stated were—

- (1) An improved system of command and distribution of troops.
- (2) A proper balance between combatant and ancillary services.
- (3) The organization and equipment of the army in accordance with modern European standards.
- (4) The maintenance of machinery in peace to provide for reinforcement and rapid expansion in war.

In framing the structure as a whole, and assessing the relative strength and value of its several parts, financial limitations had to be carefully observed; and in the following paragraphs an account is given, in some detail, of the principles by which the military advisers of Government were guided in dealing with their four main propositions.

The post-war organization of the High Command of the Army in India is described in another place. The military structure subordinate to Army Headquarters, as finally evolved, was based upon the fundamental proposition that no system of organization can produce good results which does not permit of close personal relations between commanders, staffs and troops. In order to achieve this object the first and most obvious essential is that the unit area of Command shall be restricted, and it must be remembered that in India great distances, and, in certain parts, relatively inferior communications, impose a special limitation on the area which can be effectively administered by one commander. It was further premised in the same connection that, so far as possible, the troops under each commander should be concentrated in the area which he commands, in such a way as to render possible combined training for war. Other factors were also taken into account as making for convenience and elasticity of administration. Thus it is desirable that the system of administration in peace

time should be readily adaptable to war conditions to permit of transition from peace to war with the minimum of disturbance. As has been previously pointed out, it is specially important that there should be machinery in existence to provide for continuity of the normal administration when the field army is mobilized. A considerable measure of decentralization in administrative matters is desirable for this and other purposes. It is also convenient to the government of the country in general that military commands should coincide, as far as possible, with the main divisions of civil jurisdiction. Finally, in order to leave Army Headquarters free to concentrate upon large questions of policy, and generally to secure the maximum efficiency in the system as a whole, it is considered that the High Command should not be required to have direct relations with more than six subordinate commanders; and it follows that the majority of these should be officers of high status, to whom large responsibilities can safely be entrusted.

These are the considerations which in the main led to the adoption in 1921 of the system of four commands, each under a General Officer Commanding-in-Chief. The details of the organization are given in Appendix X, and it will be seen that the Commands comprise 14 districts: that the area of the Northern Command, with its headquarters at Murree, coincides roughly with the Punjab and North-West Frontier Province: the Southern Command, with headquarters at Poona, coincides roughly with the Bombay and Madras Presidencies and part of the Central Provinces: the Eastern Command, with headquarters at Naini Tal, coincides roughly with the Bengal Presidency and the United Provinces: while the Western Command, whose headquarters have for the moment been placed provisionally at Quetta, covers Sind, Rajputana and Baluchistan.

The General Officer Commanding-in-Chief of each Command is now responsible for the command, administration, training and general efficiency of the troops stationed within his area, and also for all internal security arrangements. To enable these additional duties to be carried out, each General Officer Commanding-in-Chief has been provided with a carefully organized and proportioned staff, while the staffs of districts have been so constituted, that a certain residue is earmarked to carry on the normal routine when mobilization takes place. The introduction of the four Command system has been followed by a considerable delegation both of administrative and financial authority, and in every other respect, also the organization has been framed in such a way as to give

effect, so far as is practicable, to the fundamental principles on which it is based. Apart from the four Commands, the only formations directly controlled by Army Headquarters are the Waziristan and Burma districts and the Aden brigade. Waziristan will ultimately be merged in a Command, but is separate for the time being because since 1919 it has been an area of active service operations of an unusual character, with the conduct of which questions of high policy, requiring the direction of the Government of India, were closely allied; while Burma and Aden, mainly because of their geographical situation, cannot conveniently be included in any of the four Command areas. The three areas mentioned are small and obviously necessary exceptions to a scheme which is otherwise, so far as the physical conditions of India permit, symmetrical and well proportioned.

The distribution of the troops allotted to the Commands and districts has been determined by the principle that the striking force must be ready to function in war, commanded and constituted as it is in peace. With this end in view, the Army in India is now regarded as comprising three categories of troops:—

- (i) Covering Troops.
- (ii) The Field Army.
- (iii) Internal Security Troops.

The rôle of the Covering Force is to deal with minor frontier outbreaks, and, in the event of major operations, to form a screen behind which mobilization can proceed undisturbed. The allotment of a specific force for these duties was rendered necessary by the defection of the Border Militias in 1919. The force has taken the place of the Militias and of the 3 Frontier Brigades also, and it normally consists of 12½ infantry brigades with a due proportion of other arms.

The field army consists of 4 Divisions and 5 Cavalry Brigades, as compared with 9 Divisions and 8 Cavalry Brigades before the war. The Field Army is India's striking force in a major war, and, to compensate for reduction in numbers, it is necessary that the force should possess the fullest measure of mobility and offensive power. The provision of modern equipment and adequate ancillary services is, in the case of the field army, an obvious and paramount necessity.

Internal security troops are a necessary feature of every military organization. That they are specially necessary in India is a matter of common knowledge, emphasised in recent times by the Moplah rebellion of 1921, and the numerous occasions on which in the years 1920-22 troops were called out in support of the civil administration. In times of external peace, the field army is available to assist in internal security duties. But in time of war, the field army must be free to carry out its legitimate rôle, undisturbed by internal calls. It should not be forgotten that there are in India some 4,000 miles of strategic railway to be guarded, the working of which must be ensured on mobilization.

It is necessary to add that, while the total of the forces maintained for different rôles taken together is regarded as, in present circumstances, an irreducible minimum, the actual allotment of troops to each category of duty must inevitably vary from time to time. It will be readily perceived, therefore, that the principle previously laid down by Lord Kitchener still holds good, namely that all the constituent elements of the army must be trained and organized on a uniform basis to permit of interchangeability.

If fighting troops are to take the field and operate efficiently, they must be supplemented by a due proportion of ancillary services to provide for their maintenance and mobility, and, as has already been shown, the experience of the Great War had made it clear that the administrative units required in war should be separately constituted in peace. Improvisation, to meet the calls of war, presents in India certain special difficulties, quite apart from the military and financial objections of a general character which have been previously mentioned. This is due to the fact that the ancillary services of an army are manned very largely by trained technical personnel, who are not obtainable, in the numbers required, from the trades and industries of India. Reliance is placed, to a considerable extent, on reserves of civilian personnel who are normally employed in certain Government Departments, *e.g.*, the Railways, the Post and Telegraph Department, etc. These, however, are not sufficient to remove the necessity for maintaining in peace time a certain number of organized military units, though, for reasons of economy, a proportion of these units are normally maintained on a lower or cadre establishment which can readily be expanded in war.

The ancillary services are dealt with in detail in separate chapters: but in the present connection it is appropriate to mention

another special difficulty which has to be faced in dealing with the transportation services of an army whose most likely sphere of operations is the North-West Frontier. Wheeled transport is infinitely more efficient and economical than pack transport: but for wheeled transport, particularly mechanical transport, good roads are essential, and these cannot always be reckoned upon in the conditions of Indian warfare. The object aimed at is, however, to employ wheeled transport as much as possible, and development of road communications on the frontier is for this, as well as for other reasons, an integral part of military policy in India. A table to indicate the relative efficiency of the various forms of transport is given in Appendix XI.

The Great War taught the lesson that though moral still is, and always must be, the supreme factor in battle, yet in modern war the utmost gallantry is unavailing in the face of marked superiority of armament.

Equipment.

In warfare with a savage or semi-savage enemy there is equally strong justification for the use of modern equipment. An enemy of this character has certain advantages on his side which it is necessary to counterbalance or out-weigh by scientific weapons of war. Efficient equipment saves money and men's lives. These were the primary considerations leading to the decision that the army in India should be provided with armament similar in character to the armament of western armies: but, in carrying out the decision, it was found practicable, in Indian conditions, to adopt a lower and more economical scale of provision. The defence of the North-West Frontier being the primary rôle of the field army, the scale and nature of its equipment require to be adapted to operations in a terrain possessing certain marked characteristics, of which the most important is the relative deficiency of first class communications. As previously indicated, it is probable that, in repelling any considerable aggression, pack transport would still have to be employed, and this means long unwieldy transport columns, unless a balance is carefully struck between a high scale of equipment and a high degree of mobility. The military strength of the probable enemy, in particular the nature of his armament, and the disadvantages of terrain, to which he himself is exposed, also require to be studied. On the basis of these considerations, a scale of mechanical equipment has been adopted for the Army in India much below that accepted in the British Army. The clearest example is to be found in the scale of automatic weapons, machine guns heavy and light, which were the dominating weapons on every

front in the Great War. An infantry battalion on the war establishment of the United Kingdom now has 8 machine guns and 34 Lewis guns: on the Indian establishment the allotment is 4 machine and 16 Lewis guns. Similarly the divisional artillery in the United Kingdom consists of 3 field artillery brigades and one pack artillery brigade of 3 batteries; while in India the corresponding provision is 2 field artillery brigades and 1 pack artillery brigade of 4 batteries. To meet local conditions and also to secure economy, these variations from the scales of the British Army are unavoidable. It is obviously necessary, on the other hand, that such variations should be in scale only; diversity in type of equipment would be open to serious objection.

Reinforcements of British combatant personnel for the purpose of replacing wastage in war cannot of course be obtained in India, save to a negligible extent; and it has always been recognized that the effective maintenance of British units in India, during a period of war, depends primarily on the prompt and regular despatch of reinforcements from the United Kingdom. The occurrence of war, however, cannot at all times be foreseen; and, in order to provide for the immediate wastage resulting from the first outbreak of hostilities, it has been the practice for many years to maintain in the British infantry in India a peace establishment considerably larger than the war establishment. In principle, the peace establishment should be sufficient to find the war establishment, and also to meet all calls after mobilization until such time as a regular flow of reinforcements from the United Kingdom can be established. As a result of the recommendations of the Retrenchment Committee of 1922-23, however, the margin of peace over war establishment was greatly reduced. The following table shows the present position as compared with that obtaining in 1914—

British Infantry Battalion.

	Peace Establishment.	War Establishment.	Balance.
1914	1,008	816	187
1923	882	810	42

The war establishment for British combatant units in India has been arrived at by the only sound process, that of building up from the smallest self-contained component, that is to say, from the platoon in the infantry and from a sub-section in the artillery. These components themselves cannot be permitted to fall below a certain strength. The number of the components, that is to say, the total war establishment of a unit is determined by long practical experience in the field. There are certain well-defined limits to the number of men who can effectively be commanded, administered and manœuvred by a single unit commander.

The effect of the reduction of peace establishments has been mitigated by a departure of considerable interest—which had previously been taken—consisting in the replacement of British ranks by Indian other ranks in the British Infantry and the Royal Artillery for the purpose of carrying out certain duties. The extent to which this process of dilution has been carried out is discussed in Chapters VI and VII, which deal in detail with the organization of the British Infantry and Royal Artillery respectively. To ensure the success of the new arrangement, the Royal Artillery training centre has been created, as a peace formation, to carry out the recruitment and training of Indian ranks for the Royal Artillery, and to provide for war expansion. A training company to fulfil the same functions in respect of the Indian personnel of machine gun platoons of British Infantry battalions has also been formed.

The pre-war arrangements for reinforcing Indian troops broke down completely in the Great War. The reserve, which was in existence failed, and no adequate machinery existed to carry out recruitment and training on an extended scale after mobilization. The terms of service of the pre-war Indian reservist—terms which tended to produce a reserve largely composed of individuals past the age of military efficiency—and the modifications which have now been introduced in the case of the infantry arm are discussed in detail in Chapter X. The new terms of enlistment in the Indian infantry, which include a compulsory period in the reserve, resemble the terms of enlistment in the British Service, and the Indian infantry reserve, as now constituted, should be an efficient and reliable source whence to meet wastage in war.

There are certain difficulties peculiar to India which stand in the way of applying the same reserve system to other arms. In the United Kingdom, requirements in animals are, on mobiliza-

tion, completed to war establishments from civilian sources; but in India this is impossible. For the cavalry and artillery arms in India it is necessary to maintain in peace an establishment of animals greater than the war establishments. The Indian infantry reserve was provided by reducing the personnel of peace establishments, but the necessity for maintaining and caring for the requisite establishment of animals makes it impossible to adopt a similar expedient in the case of the mounted arms.

During the Great War individual units in the field were maintained from depôts constituted from the unit itself and left behind in India. For reasons which it would be tedious to explain, the system was a complete and acknowledged failure: and one of the most important features of the post-war reorganization of the army is the machinery which has been devised to relieve combatant units of the training of recruits both in peace and war, to ensure efficient war maintenance, and to provide for continuity of unit administration. The machinery consists of—

- (a) For the Indian personnel of the Artillery—The Royal and Pack Artillery Training Centres.
- (b) For Sappers and Miners—Headquarters, Corps of Sappers and Miners.
- (c) For the Indian Signal Corps—The Signal Training Centre and Depôt.
- (d) For Indian Cavalry—The Group Depôt.
- (e) For Indian infantry and pioneers—The Training Battalion.

With the exception of the Cavalry group depôt, all the above units now exist in peace. The details of the machinery will be found in the chapters relating to individual services and arms.

Details of the authorized establishment, composition and organization of the reconstructed army in India will be found in the appendices.

Conclusion.

There is one particularly significant aspect of the new dispositions. The necessary improvements in organization, the balance between combatant and ancillary services, and the higher standard of equipment could only be secured, within the financial limitations imposed, by a reduction of combatant troops. The extent of the reduction is shown in the following table.

Combatants.

	British Ranks.	Indian Ranks.	TOTAL.
1914	75,366	158,908	234,274
1923	57,080	140,052	197,132
Reduction	18,286	18,856	37,142

The sacrifice was deliberately made on the view that a relatively small army, which is efficient, well-equipped, mobile and capable of large expansion in war, is of greater value than an army large in numbers but deficient in essential ancillary services and up-to-date equipment. At the same time, it is important to note the observations which were made by General Lord Rawlinson in announcing to the Legislative Assembly, in July 1923, the reductions of fighting troops which it had been decided to make on the recommendation of the Retrenchment Committee. These observations were as follows:—

“In giving my support to the proposals of the Retrenchment Committee for the reduction of combatant troops, I made it clear that my acquiescence must not be construed as meaning that I reject once and for all, as unnecessarily high, the standard of defence which had previously been adopted in the post-war organization of the Army in India. I held, and I still maintain, that the reductions have been determined primarily by financial considerations, and I accepted them in order to balance the budget.

“I have from the first advised that, if and when the resources at the disposal of the Government of India increase, the Government of India, as they will aim at making more liberal provision for schemes of social and material betterment, should also be prepared to allot funds for increasing the strength of the fighting troops. His

Majesty's Government have signified that they attach special importance to those views, and they have sanctioned the reductions on the understanding that the Government of India will do their utmost to give effect to my advice when the financial situation improves."

Chapter IV

The Administration of the Army in India and the High Command

THE constitutional arrangements for the control of Army administration and for the supreme command of the Army have not been altered in any essential respect since the Great War. The preservation of the *status quo ante bellum* was not, however, decided upon without a thorough re-examination of the merits of the existing system or, it must be stated, without a certain amount of controversy. One of the three terms of reference to the Army in India Committee of 1919-20 was—

"To consider the position of the Commander-in-Chief in his dual capacity as head of the Army and Member of the Executive Council, and to make recommendations."

The subject was one of extreme difficulty, and it will be necessary in due course to indicate the nature of the issues which the Committee discussed—and discussed exhaustively: but the Committee themselves were in the end unable to agree unanimously upon any new constructive proposal, and subsequent discussion has so far endorsed the maintenance of existing arrangements. The institutions, which have thus survived the Great War and the process of post-war reconstruction, are founded upon section 33 of the Government of India Act, 1919, which reads:—

"Subject to the provisions of this Act and the rules made thereunder, the superintendence, direction and control of the civil and military Government of India is vested in the Governor General in Council who is required to pay due obedience to all such orders as he may receive from the Secretary of State."

It has already been explained that, under section 22 of the Government of India Act, the purposes for which the Army in India is maintained are specifically limited, and that in a grave emergency it would be a recognised liability of His Majesty's Government to come to India's assistance with the armed forces of the United Kingdom; and it is obvious, therefore, that the defence of India must be regarded as one of the permanent problems of

Imperial strategy. On an ultimate analysis, these are the considerations which determine that His Majesty's Government and the Secretary of State, as one of His Majesty's ministers, should have a special responsibility and authority in regard to the military administration in India.

The Secretary of State's principal adviser on Indian military affairs is the Secretary in the Military Department of the India Office. The post is filled by an officer of the Indian Army of high rank—he is usually a Lieutenant-General—with recent Indian experience. The Military Secretary is assisted by one first grade staff officer, selected from the Indian Army. In order that he may keep in touch with the current of Indian affairs the Military Secretary is expected to visit India during the tenure of his office. In addition, by a practice which has obtained for many years, a retired Indian Army officer of high rank has a seat upon the Secretary of State's Council.

The Viceroy's Executive Council exercise in respect of Army administration the same authority and functions as they exercise in respect of other departments of the Government: and it has been previously explained that, in the first phase of the representative institutions conferred upon India by the Montagu-Chelmsford Reforms Scheme, Army expenditure and the direction of military policy have been excluded from the control of the Legislature. The next authority in the chain of administrative arrangements is His Excellency the Commander-in-Chief, who by custom is also the Army Member of the Viceroy's Executive Council. His present position, and the process by which in recent times his present functions have been determined, can conveniently be explained by quoting *verbatim* from the report of the Esher Committee of 1919-20 the following passage:—

“Prior to 1906 there were two members of the Executive Council, the Commander-in-Chief, who was responsible for command and executive work, and who had under him 3 principal staff officers—the Adjutant General, the Quartermaster General and the Principal Medical Officer—and the Military Member, also a soldier, who was responsible for the administrative work of the Army, and who had under him the Director General of Ordnance, the Director General of Supply and Transport and the Director General of

Military Works. This member therefore combined the functions of administration and supply, besides being the authority to whom the Commander-in-Chief had to refer for sanction all such proposals as required the orders of Government. Under this arrangement the Government of India had two military advisers. This system was abandoned in 1906 in favour of an arrangement under which a department of Military Supply was created and placed in charge of another soldier, with the rank of Major-General, who also had a seat on the Executive Council.

“We do not think it necessary to enter into the merits of the controversy which resulted in this decision. In 1909 this department was abolished and the present system was introduced, under which all the work connected with the administration of the Army, the formulation and execution of the military policy of the Government of India, the responsibility for maintaining every branch of the Army, combatant and non-combatant, in a state of efficiency and the supreme direction of any military operations based upon India, are centred in one authority, the Commander-in-Chief and Army Member.”

The Esher Committee, when they came to frame their own recommendations, were definitely and unanimously of opinion that the Commander-in-Chief alone should have the right to offer military advice to the Government of India, and that he should have no military colleague on the Executive Council. They also regarded it as supremely desirable to abolish the duality of functions resulting from the same officer being the Commander-in-Chief and Member-in-charge of the Army Department: and were unanimous in thinking that the existing arrangements imposed too heavy a burden of work upon the Commander-in-Chief. In order to abolish the duality of functions, they proposed a complete unification of Army Headquarters and the Army Department, the latter ceasing to have the essential characteristics of a Department of the Government of India: and they agreed generally that the appropriate means of lightening the burden of work imposed upon the Commander-in-Chief was to create a separate authority, on whom should be placed the responsibility for the manufacture and provision of the stores required by the Army. They had considered and rejected, as unsuited to Indian conditions at the time, a pro-

posals to establish in India a Civilian Member of the Executive Council, responsible for the Army, and an Army Council with collective responsibilities.

They were, however, divided in their opinions as to the nature of the separate machinery to be created for the purpose which they had decided to approve. The majority of the Committee recommended that the production and provision of army supplies should be entrusted to a civilian member of the Viceroy's Executive Council, a new appointment of Member of Council being created for the purpose: while the minority held that production and provision should be entrusted to a civilian member of the Commander-in-Chief's Military Council,* subordinate to the Commander-in-Chief, who should be designated the Surveyor-General of Supply.

Of these several propositions, only one has been ratified, namely, that the Commander-in-Chief should continue to be the sole military adviser of the Government of India. It may be mentioned in this connection that the Legislative Assembly, by their vote on two resolutions discussed in March 1921, declared themselves opposed to the creation of either a Civil Army Member or a civilian Member for Army Supply. Accordingly, the Commander-in-Chief continues to exercise all the functions described in the concluding portion of the passage quoted above from the Esher Committee's report. In addition he administers the Royal Indian Marine and the Royal Air Force in India. The heads of the Budget which he controls are:—

48-Army.

Part A—Standing Army.

Part B—Auxiliary and Territorial Forces.

Part C—Royal Air Force.

49-Marine.

50-Military Works.

The details of the organization and functions of Army Headquarters are described elsewhere. The organization is founded upon the three Principal Staff Officers, the Chief of the general Staff, the Adjutant-General in India, and the Quartermaster-General in India, whose primary duty is to assist the Commander-in-Chief in the Executive side of his administration. There are other minor

**Army Headquarters—
The Principal Staff
Officers.**

* See page 54.

branches of the Army Headquarters staff, administered by officers who are not classified as Principal Staff Officers, but are not directly subordinate to any of the three Principal Staff Officers; namely, the Military Secretary, who was formerly on the personal staff of the Commander-in-Chief, but now, under a recommendation of the Esher Committee, is part of the organization of the Army Headquarters staff proper: the Director General of Ordnance, who is also directly under the orders of the Commander-in-Chief; and the Engineer-in-Chief who stands in a special relation, explained in a later chapter, to the Chief of the General Staff on the one hand and the Quartermaster-General on the other. The Director of Medical Services in India, who was independent before the war, is now included in the Adjutant-General's Branch, this also being the result of a recommendation of the Esher Committee.

Before the war the posts of Adjutant-General and Quartermaster-General were open to officers not below the rank of Colonel. The status of the appointments was raised in 1917, and they are now ordinarily held by officers of the rank of Lieutenant-General who have completed a tour of command in a first class district, and, by their great experience and authority, are in a position to relieve the Commander-in-Chief of a considerable burden of work.

The Principal Staff Officers and the other independent heads of Branches at Army Headquarters have two separate functions of a well-defined character. In one direction **The Army Department.** they are staff officers of the Commander-in-Chief, responsible for the administration of their departments of staff duties, for conveying to the subordinate commands the executive decisions of the Commander-in-Chief, and ensuring that these decisions are carried out. In their other aspect, they are responsible to initiate and pursue, under the direction of the Commander-in-Chief, proposals relating to the better administration of the army, and the welfare of the troops, which require the decision of the Government of India or the Secretary of State. It is here that the dual nature of the Commander-in-Chief's position manifests itself: because, when such proposals are ripe for submission to Government, they come before the Army Department, a Department organized in the same way and possessing the same functions and authority as the civil Departments of the Government of India, the portfolio being in charge of the Commander-in-Chief in his capacity as **Army Member of His Excellency the Viceroy's Council.**

THE EVOLUTION OF THE ARMY IN INDIA

The staff of the Army Department consists of a Secretary who, like the Secretaries in the civil departments, is a Secretary to the Government of India as a whole, possessing the constitutional right of access to the Viceroy: a Deputy Secretary, an Establishment officer and two Assistant Secretaries. Until 1921 the Army Secretary was a military officer usually of the rank of Major-General. The Esher Committee took exception to this feature of the system, as they considered that to vest in a military officer the constitutional authority of a Secretary to Government was liable to impair the independence of the Commander-in-Chief as the sole military adviser of Government: and by an indirect result of one of their recommendations the post is now held by a civilian, an arrangement which is not open to the same objection, and which, incidentally, is more in tune with the advance of political institutions in India. The Army Department deals with all army services proper, and also the administration of the Royal Indian Marine and the Royal Air Force in India, in so far as questions requiring the orders of the Government of India are concerned. The Army Department has no direct relations with commanders or troops or the staffs of formations subordinate to Army Headquarters: it has continuous and intimate relations with Army Headquarters in all administrative matters. The Army administration is represented in the Legislature by the Army Member in the Council of State, and by the Army Secretary in the Legislative Assembly.

The anomaly of the existing constitution of the High Command, as the Esher Committee viewed the matter, is that it permits in theory of a situation arising in which the
The Military Council. Army Member might reject a recommendation which he had approved as Commander-in-Chief. It is needless to say that a situation of this kind does not in practice arise: one of the most effective working safeguards being the Military Council, an institution which, in its present form, is based upon a recommendation of the Esher Committee. The Military Council is composed of the Commander-in-Chief as President, and the following members, namely:—the Chief of the General Staff, the Adjutant-General, the Quartermaster-General, the Secretary to the Government of India in the Army Department, and the Financial Adviser, Military Finance, representing the Finance Department of the Government of India. It is mainly an advisory body, constituted for the purpose of assisting the Commander-in-Chief in the performance

THE ADMINISTRATION OF THE ARMY IN INDIA AND THE HIGH COMMAND

of his administrative duties. It has no collective responsibility. It meets when convened by the Commander-in-Chief for the consideration of cases of sufficient importance and difficulty to require examination in conference. The heads of the minor independent branches of Army Headquarters and the directors of technical services attend when required. Accordingly, at an early stage in the consideration of any large question of policy, the Commander-in-Chief is in a position to obtain, by an extremely convenient procedure, a combination of authoritative advice on its military, administrative, and financial aspects, in the light of which he decides broadly the course of action he will maintain whether as Commander-in-Chief or Army Member.

Part II .
Army Services



Chapter V—The Staff

THE staff is the establishment of officers employed at the headquarters of each higher military formation to assist the commander in carrying out his duties of command and administration. The staff of the Commander-in-Chief in India is known as the Army Headquarters staff.

Definition and Composition of "The Staff."

The officers appointed to the staff are specially selected officers, taken normally from among those who have graduated at the Staff Colleges at Camberley or Quetta. The Staff Colleges are institutions where officers, after passing a competitive entrance examination, undergo a course of instruction in advanced military science, and where they study the work of each fighting arm and of each administrative service and department of the army. No officer is posted permanently to the Staff. After a period of staff employment, limited as a general rule to four years, an officer returns to his unit for a tour of regimental duty, in order that he may keep in touch with regimental work, which it is essential that he should do. Moreover, no staff officer is trained solely for duty with one of the three branches of the staff: it is important that officers of each branch should be acquainted with the working of other branches, in order that they may know what assistance they can give and receive, and in order also to ensure the proper allocation of responsibility and to avoid overlapping of work. To obtain this result, arrangements are made for the periodical exchange of staff officers between the different branches of the staff.

Staff Duties.

The duty of a staff officer is—

- (a) To assist the commander in the execution of the duties entrusted to him, to transmit his orders and instructions to subordinate commanders and to the services, to make the necessary arrangements in connection therewith, and to see that those orders and instructions are carried out.
- (b) To give every possible assistance to the fighting troops and to the services in the execution of their tasks. (Field Service Regulations, Volume I.)

Organisation, and the functions of the several branches.

The staff is organized in three branches:—

- (a) The General Staff Branch.
- (b) The Adjutant-General's Branch.
- (c) The Quartermaster-General's Branch.

Efficiency in staff work, as in other things, depends upon a well-considered division of labour.

The General Staff Branch deals with military policy, with plans of operations for the defence of India, with the organization and distribution of the army for internal security and external use, in accordance with the policy of Government, with the collection and distribution of intelligence, with the supervision of the training of the army, with the use of the military forces in war, with war regulations, with the education of officers and other ranks, and with the inter-communication services.

The Adjutant-General's Branch deals with all matters appertaining to the raising, organizing and maintenance of the military forces, the peace distribution of the army, discipline, martial military and international law, medical and sanitary measures relating to the troops, personal and ceremonial matters, prisoners of war, pay and pension questions, recruiting, mobilization and demobilization.

The Quartermaster-General's Branch is concerned with the specification, provision, inspection, maintenance and issue of supplies, i.e., food stuffs, forage, fuel, clothing, armaments, ammunition, equipment, general stores and material, and reserves of these articles, with the services responsible for the transportation, movement and quartering of troops, with the supply and transport service, military farms, armaments, military works, equipment and ordnance stores, with the remount and veterinary services and cantonment administration: and with garrison and regimental institutes.

The formidable character and extent of the list of duties assigned to the Quartermaster-General make it necessary to explain that since the war the responsibilities of the Quartermaster-General's Branch have increased to a far greater extent than those of any other branch of the staff. This is attributable specifically to the creation of new services, such as Mechanical Transport, and to the

fundamental change of policy by which, since the war, Indian troops are fed, clothed and mounted directly by Government, instead of under regimental arrangements.

Grading of staff at Army Headquarters. The various grades of staff appointments at Army Headquarters are—

General Staff.

Chief of the General Staff	(C. G. S.)
Deputy Chief of the General Staff	(D. C. G. S.)
Colonel-on-Staff, General Staff	(Col.-on-Staff G. S.)
General Staff Officer, 1st Grade	(G. S. O. 1.)
General Staff Officer, 2nd Grade	(G. S. O. 2.)
General Staff Officer, 3rd Grade	(G. S. O. 3.)

Adjutant-General's Branch.

Adjutant-General	(A. G.)
Deputy Adjutant-General	(D. A. G.)
Assistant Adjutant-General	(A. A. G.)
Deputy Assistant Adjutant-General	(D. A. A. G.)
Staff Captain	(S. C.)

Quartermaster-General's Branch.

Quartermaster-General	(Q. M. G.)
Deputy Quartermaster-General	(D. Q. M. G.)
Assistant Quartermaster-General	(A. Q. M. G.)
Deputy Assistant Quartermaster-General	(D. A. Q. M. G.)
Staff Captain	(S. C.)

In formations subordinate to Army Headquarters certain appointments are occasionally combined, so as to comprise duties appertaining to both the Adjutant-General's and Quartermaster-General's Branches. For appointments of this character, the following special grades have been prescribed:—

Deputy Adjutant and Quartermaster-General	(D. A. & Q. M. G.)
Assistant Adjutant and Quartermaster-General	(A. A. & Q. M. G.)
Deputy Assistant Adjutant and Quartermaster-General	(D. A. A. & Q. M. G.)

For each grading there is a stereotyped rate of pay.

The particulars which have now been given of the different categories of staff duties, and of the establishments employed to carry them out, supplement the more general description of the system of administration in Army Headquarters which has been previously given in Chapter IV. It was there explained that there are other minor branches of the Army Headquarters staff, administered by officers who are not classified as Principal Staff Officers, but are not directly subordinate to any of the three Principal Staff Officers.

These are:—

- (1) The Military Secretary, usually a Major-General, who deals with the appointment, promotion and retirement of officers holding the King's Commission, and the selection of officers for staff appointments.
- (2) The Director-General of Ordnance, also a Major-General, who controls the Ordnance factories. His functions are fully described in Chapter XV, which deals with the Ordnance services.
- (3) The Engineer-in-Chief, also a Major-General and head of the Corps of Royal Engineers in India. His functions are described in Chapter VIII which deals with the Royal Engineers.

In addition to the above, the Army Headquarters staff includes certain technical advisers, of whom the most important are the Major-General, Cavalry, and the Major-General, Royal Artillery. The duties of these two officers are to inspect and co-ordinate the training of the cavalry and artillery arms respectively, and to render advice to the General Staff Branch on technical questions connected with the administration of these arms and their employment in war. Both officers are attached to the General Staff Branch.

Further details of the organization of the Army Headquarters staff will be found in a simple graphic form in Appendix XII.

The staff in Commands and Districts is organized on the same lines as at Army Headquarters, and the allocation of duties is in exact correspondence. There are of course certain differences, one being that the lower the formation the fewer in number are the appointments and the lower is their grading; further, the work of the Adjutant-General's and Quartermaster-General's Branches is usually combined in one administrative staff officer. The composition of the staff of Com-

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mands and Districts varies with the special requirements of each. The senior General Staff Officer in each Command is a Colonel-on-the-Staff, General Staff; whilst the senior administrative staff officer is a Deputy Adjutant and Quartermaster-General, holding in two of the Commands the rank of Major-General, and in the other two Commands that of Colonel-on-the-Staff.

Except in the case of certain 2nd class Districts, the senior General Staff Officer of a District staff is a General Staff Officer first grade, and the senior administrative staff officer is an Assistant Adjutant and Quartermaster-General. The staff of an Infantry Brigade consists of a Brigade-Major and a Staff Captain. A Cavalry Brigade has a Brigade-Major only.

Chapter VI

British Cavalry and Infantry

THE British cavalry and British infantry units of the army in India are units of the British service. No individual British service unit is located permanently in India. The story of those which serve in India from time to time belongs, therefore, to the story of the British Army, and the present account will be confined to the type of organization prevailing in the United Kingdom, and to such deviations from type as have been adopted to meet Indian conditions.

In the United Kingdom, in peace time, units are maintained at an establishment smaller than that required for war. The deficiencies on mobilization required to complete units to their war establishment are made good by means of reservists.

In India the position is different. Reserves of British personnel do not exist, and reinforcements must be obtained from the United Kingdom. It is obvious that the process of recalling reservists to the colours, equipping and despatching them to India must take time; and thus, until reinforcements can reach India from the United Kingdom—the interval is calculated at two months—British units in India must be self-contained. It is for this reason that in India the peace establishments exceed the war establishments.

Units of the British Army are detailed for a tour of foreign service, of which the major part is as a rule spent in India. In the case of British infantry battalions the system is that one battalion of a regiment serves in the United Kingdom and the other overseas, in order that drafting arrangements may be simplified, as will be explained later. The tour of overseas service of a British battalion is usually 16 years. In the case of British cavalry the same arrangement cannot be applied, as one unit only comprises the regiment. The normal tour of overseas duty for a regiment of British cavalry is 14 years.

British Cavalry.

In 1914 there were 9 British cavalry regiments in India, each with an establishment of 27 officers and 598 other ranks. Since

Pre-war and present strength. the war the number has been reduced to 6. The establishment of a British cavalry regiment is 27 officers and 571 other ranks. Thus the present total establishment of British cavalry in India is 162 officers and 3,426 other ranks, compared with a total establishment in 1914 of 243 officers and 5,382 other ranks.

In order to replace time-expired soldiers and casualties, an annual draft is sent from the United Kingdom to each unit whose turn for relief has not come. Recruits for

Drafts. the British cavalry are trained at the Central Cavalry Dépôt at Canterbury, for fourteen weeks, in dismounted work and education only. They are then sent to regiments in the United Kingdom, where their training is carried on until such time as drafts are prepared for regiments serving overseas.

Organization. The present organization of Cavalry Regiments is:—

Regimental Headquarters.

Headquarter Wing composed of—

- | | |
|-------------------|-----------------------|
| No. 1 Group . . . | Signallers. |
| No. 2 Group . . . | Machine Gun Troop. |
| No. 3 Group . . . | Administrative Troop. |
| No. 4 Group . . . | Band Troop. |

3 Service Squadrons, each of 3 Sabre Troops and 1 Hotchkiss Gun Troop.

Each Sabre Troop has 3 sections, and each Hotchkiss Gun Troop is equal to 3 guns.

In the United Kingdom the establishment contains 13 fewer men and 200 fewer horses than in India.

This organization provides for specialists, such as signallers and machine-gunners, being collected in the Headquarter Wing. Under the previous organization each of the squadrons had, when required, to provide specialists. Obvious advantages accrue from the present organization, in which peace and war procedure are assimilated.

The regimental Headquarters consist of the Commandant, who is a Lieutenant-Colonel, with a Major, the adjutant, and the quartermaster. The Headquarter Wing is commanded by the senior Captain, assisted by four squadron officers, i.e., one Captain and three Lieutenants.

Each of the three Service Squadrons is commanded by a Major, assisted by five squadron officers. The Squadron consists of

Squadron Headquarters (two officers and sixteen other ranks), and four Troops. Each Troop is commanded by a Lieutenant.

British Infantry.

In 1914 there were 51 British infantry battalions in India, each with an establishment of 28 officers and 1,003 other ranks. Since the war the number of battalions has been reduced from 51 to 45. The strength of each battalion up till 1923 was 28 officers and 1,012 other ranks. As a result of the recommendations of the Indian Retrenchment Committee, the establishment has recently been reduced by 130 other ranks per battalion. Thus the present number of British infantry battalions in India is 45, each with an establishment of 28 officers and 882 other ranks, or a total of 1,260 officers and 39,690 other ranks, compared with a total, in 1914, of 1,428 officers and 51,153 other ranks.

As mentioned previously, one battalion of a regiment serves overseas, whilst the other remains in the United Kingdom. The

Drafts. latter functions as a training battalion for the overseas battalion. As in the case of British cavalry, an annual draft is prepared by the Home battalion and despatched to the overseas battalion, in order to make good any wastage that may have occurred during the past year.

Each infantry regiment has a Dépôt in the United Kingdom, which is commanded by a Major selected from the battalion serving at home. The Dépôt is situated in some suitable town in the area from which the regiment is recruited. The chief functions of a Dépôt are the training of recruits, the custody of reservists' equipment, and the reception of reservists on mobilization.

All recruits on first enlistment are sent to the Dépôt of the regiment for which they enlist. There they are clothed and equipped, receive instruction in drill and elementary musketry, and are taught discipline and the general duties of a soldier.

Until 1923 recruits remained at the Dépôt for a period of three months, after which they were posted to the home battalion of their regiment, where they were again instructed in barrack square drill and elementary collective training, and were put through a recruit's course of musketry. Not until they had completed this further period of drill and musketry did they take their place in their company.

A reorganization of Depôts of Infantry of the Line has now taken place, which, in the terms of the Army Order which introduced it, had in view the following objects:—

- (a) The adoption of such a syllabus and period of training of recruits as will permit of—
 - (1) The completion of the individual recruit training of infantry recruits at the regimental Depôt.
 - (2) Infantry recruits receiving at the regimental Depôts such elementary collective training as will fit them to take their places in a platoon of a battalion serving at home.
- (b) The provision of a nucleus to provide the machinery for the training of reinforcements during war.
- (c) The custody of reservists' equipment and the reception of reservists on mobilization.

Under the syllabus of training now introduced, the recruit remains at the Depôt for about five months, and joins his battalion after having fired his recruit's course of musketry and having received such instruction in drill and elementary collective training as will enable him to take his place at once in the ranks of his company. On reaching his battalion, his military instruction is continued until such time as the annual draft for the overseas battalion is prepared, when, if he is required, he is drafted overseas.

It may perhaps be of interest to mention at this point a discussion which took place in the years immediately preceding the Great War, and which led to a far-reaching reorganization of the infantry.

Organization.

Prior to 1914 there was considerable discussion, and wide difference of opinion as to the desirability of maintaining eight smaller companies as opposed to four of double the strength. The larger company was maintained in the chief continental armies. Under the eight-company organization the average strength of a company was 120 other ranks.

The chief arguments against the adoption of four companies, each of approximately 240 other ranks, were:—

- (a) with so large a company the commander would have great difficulty in getting to know his men personally;
- (b) 240 was too large a number to be commanded effectively by one man in the field.

The arguments in favour of the four-company organization were:—

- (a) Owing to the number of men who were always absent from their companies, on specialist or other duties within the battalion, or were extra-regimentally employed, the companies were never, even approximately, at full strength. Companies at home were particularly weak when at training, owing to a large number of men being always at recruit drill or recruits' musketry. Abroad, the actual strength of a company at training was seldom more than 80, while at home it was sometimes as low as 20 or 30. It was thus frequently difficult for a company commander to exercise his junior officers and non-commissioned officers, owing to lack of men for them to command.

In the absence of the company commander, the command of a company more often than not devolved upon a very junior officer.

- (c) For purposes of administration within the battalion it would obviously be easier for the commanding officer and his staff to deal with four units than with eight.

In the United Kingdom in 1912, although the eight companies were still maintained, two companies were grouped together under one commander during all periods of training. The forming of double companies for training was adopted in India in 1914. These preliminary trials of the four-company organization having been successful the organization was definitely adopted just before the outbreak of the War.

The battalion is the unit of the British infantry. In this respect the British differs from the continental system, under which the regiment, composed of several battalions, is treated as a whole for administrative purposes and is usually together. In the British infantry, battalions are grouped in regiments for the purposes of recruitment and mutual support, but there is no regimental commander. Battalions are quartered singly and are entirely self-contained and independent units.

A battalion is commanded by a Lieutenant-Colonel, who has a headquarter staff, consisting of a second-in-command of the rank of Major, an adjutant and a quartermaster. Up to 1914, when a battalion consisted of a headquarters and eight companies, each

company was commanded by a Major or Captain. The establishment of officers, excluding the headquarters staff mentioned above, was:—

At home—2 Majors, 6 Captains and 12 subalterns.

Abroad—2 Majors, 6 Captains and 16 subalterns.

The subalterns were all allotted to companies; but among them there were always two specialist officers, the machine gun officer and signalling officer, and, during field training, a transport officer. These officers did duty with their companies when not employed on their special duties. The senior non-commissioned officer in a company was the colour-serjeant, whose duties were both executive and administrative. He attended all parades, was responsible for drill and discipline, assisted the company commander in the training of the company and, in addition, kept the company pay list, and dealt with other administrative matters such as clothing and equipment, messing, barrack furniture, etc.

Under the four-company system, each company is commanded by a Major or Captain, with a Captain as second-in-command. Instead of a colour-serjeant, each company has a company serjeant-major who is concerned with drill, discipline, detailing of non-commissioned officers for duty, training, and, in fact, all executive matters; and a company quartermaster-serjeant who deals with pay, messing, clothing and equipment, and everything connected with administration. The former small company was divided into four sections, each commanded by a non-commissioned officer; the present company is divided into four platoons each of four sections. Under the old system, the subaltern officer had no definite permanent command, but merely assisted the company commander. Under the present system, a subaltern officer is definitely assigned to the command of a platoon.

Immediately before the war, as previously stated, a battalion was composed of a headquarters and four companies; but there was no headquarters unit, and every man of the battalion belonged to a company, whether employed on headquarter duties or not. In peace time there are always many men who do not do duty with a company, such as those who are employed on services for the battalion as a whole, *i.e.*, quartermaster stores personnel, police, sanitary personnel, orderly room staff and specialist personnel, *i.e.*, machine gunners, signallers, bandsmen and buglers or drummers. In the war the band was not maintained as such, but its personnel became stretcher bearers, and there were also battalion bombers,

scouts, snipers and transport personnel who, in addition to the others mentioned, formed part of a battalion headquarters. When a battalion is engaged in active operations, it is essential that each of its sub-units should be self-contained; since, when actually fighting or in billets, companies and headquarters personnel are liable to be more or less dispersed. In these conditions, it was manifestly impossible for headquarters personnel to be either accommodated or messed with their companies, and it became necessary to maintain a headquarters of a considerable size separate from any company.

The war organization of an infantry battalion, therefore, now comprises a headquarters, a headquarter wing and four companies. The details of this organization are given in Infantry Training, Volume I, 1922. As it is essential that peace organization should approximate as nearly as possible to that required in war, peace establishments are framed to correspond closely with war establishments, in order that units may be transferred from a peace to a war footing with the minimum of dislocation. The peace establishment of an infantry battalion, therefore, consists now of a headquarters, headquarter wing and four companies.

The headquarters comprises only the four headquarter officers—commanding officer, second-in-command, adjutant and quartermaster.

The headquarter wing is divided into four groups, numbered from 1 to 4 as in war establishments, composed of the following:—

- | | |
|-----------------------|---------------------------|
| No. 1 Group | Signallers. |
| No. 2 Group | Machine gun personnel. |
| No. 3 Group | Administrative personnel. |
| No. 4 Group | Band. |

This follows as nearly as possible the war establishment, in which No. 1 Group is composed of the personnel which accompanies headquarters into action, No. 2 Group remains the Machine gun group, No. 3 Group the administrative group and No. 4 Group becomes the transport group, the bandsmen being turned into stretcher bearers. The headquarter wing is commanded by the senior Machine gun officer—a Major or Captain—and has in addition three subaltern officers—the signalling officer and two machine gun officers.

It may be noted that the experience of the recent war entirely dispelled the idea that a four-company organization was undesirable, because a company some 200 strong could not be controlled

effectively in action by one man. It was proved again and again that, under modern conditions of war, once a company has been launched into action, comprehensive control by the company or platoon commander often becomes impossible; and the subsequent success of the company depends upon the initiative of junior non-commissioned officers or even of individual soldiers.

In 1921 an important change was made in the composition of a British infantry battalion in India, by the inclusion of a proportion of Indian combatant ranks. Battalions had always maintained a quota of Indian followers; but, up to 1921, the combatant personnel was entirely British. In 1921, on the abolition of the Machine Gun Corps, eight machine guns were included in the equipment of a British infantry battalion. These guns are carried on mules, which are driven, looked after and taken into action by Indian combatant personnel. The peace establishment of Indian combatant personnel is fixed at one Indian officer and forty-one Indian other ranks.

The Indian platoon in British infantry.

The Indian platoon, as it is called, is transferred *en bloc* to another British battalion when the battalion to which it was originally attached proceeds on relief out of India. Men for this Indian establishment are recruited and trained at the Machine Gun Drivers' Training Company, which forms a part of the 10/17th Dogra Regiment at Jullundur. This institution performs, in regard to the category of personnel for which it is responsible, the functions carried out by training battalions for active battalions of Indian infantry and pioneers.

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Chapter VII—Royal Artillery

THE categories of artillery employed in India before the war and their organization, were as follows:—

Horse Artillery.—Three brigades, each consisting of head quarters and two batteries, and five unbrigaded batteries. Each battery was armed with six 13-pounder guns. Nine battery ammunition columns were also maintained.

Field Artillery.—Fifteen brigades, each consisting of head quarters and three batteries. Each battery was armed with six 18-pounder guns or six 4.5" howitzers. All three batteries in each brigade were armed alike. Twelve brigade ammunition columns were also maintained.

Heavy Artillery.—Three brigades, each consisting of head quarters and two batteries. Two batteries were each armed with four 30-pounder guns, two with four 4" guns, and two with four 5" guns. The 30-pounder and 4" batteries had horse draught for guns and for one ammunition wagon per gun, the remainder of the ammunition being carried in carts with bullock draught. The 5" batteries were all bullock draught.

Mountain Artillery.—Three brigades of British Mountain Artillery, each consisting of headquarters and two batteries, and two unbrigaded batteries.

Four brigades of Indian Mountain Artillery, each consisting of headquarters and two batteries, and four unbrigaded batteries.

Each battery was armed with six 10-pounder guns.

Garrison Artillery.—The garrison artillery consisted of a number of sub-categories of artillery, allotted to coast defence, the defence of certain frontier posts and other defended posts inland. The units were all immobile. The type of armament varied, but usually consisted of one kind or another of heavy ordnance.

Peace Establishments. The pre-war peace establishments appear in Appendix XVII.

The chief defects of the organization described above were that it lacked homogeneity; the so-called "heavy" artillery was inadequate and obsolete in type; and the provision of field howitzer equipments was inadequate. It will be seen also that very few Indian other ranks were employed in Royal Horse and Royal Field Artillery batteries before the war. Further, all recruiting of Indian ranks for artillery was carried out by units, and consequently on mobilization there was no machinery for the recruitment of Indian ranks as reinforcements for units in the field.

Before proceeding to recount the modifications in artillery establishments introduced after the war, it is necessary to explain the system on which an artillery unit is built up.

Artillery establishments vary widely in nature. As we have seen, in the pre-war artillery, there were five main groups—Horse, Field, Heavy, Mountain and Garrison—most of which contained further sub-divisions with their own peculiar armaments and functions. Moreover the units in each of these numerous sub-divisions had their own establishments. But in the determination of a unit's establishment certain main principles are of universal application. The field artillery formed the largest and most important group, and if, therefore, the structure of a field battery establishment is explained, it is possible to arrive at a very fair understanding of the method by which artillery establishments are determined as a whole.

The field battery has two establishments; its war establishment, or the strength at which it mobilizes and proceeds on field service; and its peace establishment or its authorised strength in peace, which is based on its war establishment. The war establishment of the pre-war field battery was built up from its smallest self-contained tactical sub-unit. This was the sub-section. The sub-section consisted of a gun with limber, and two ammunition wagons. For the gun and for its two wagons, three 6-horsed teams were required. The strength of the personnel of the sub-section was decided by the number of gunners required to work the gun, and by the number of drivers required to manage the teams. In addition, certain further personnel and animals were necessary for the two G. S. wagons allowed, one to each flank sub-section, for battery stores, for battery staff (see below), and as spares. The total so arrived at was the establishment of the sub-section, the minimum strength below which it must not be allowed to fall if it is to carry out its rôle efficiently.

Two sub-sections went to form a section. This section was commanded by a subaltern officer. Three such sections went to form the battery. The battery was commanded by a Major, who had a battery staff consisting of a second-in-command (a Captain), a serjeant-major, a quartermaster serjeant, signallers, trumpeters, etc. But the personnel and horses of this battery staff were not separately constituted in a permanent battery headquarters: they were distributed among the six sub-sections of the battery whence they were drawn as required. Thus the establishment of a battery was the sum total of the establishments of its three sections.

In 1914, the whole personnel of a field battery was British with the exception of ten Indian drivers, who were employed in driving the two G. S. wagons allotted for the carriage of stores, and two Indian shoeing-smiths.

In 1920, under instructions from the War Office, the designations "Heavy" and "Mountain" artillery were changed to "Medium" and "Pack" artillery respectively: and in 1921, as the result of the experience of the Great War, the artillery was reorganized as follows:—

Royal Horse Artillery.—One brigade consisting of headquarters and three batteries and ammunition columns, and one brigade consisting of two batteries and two ammunition columns. All batteries were armed with six 13-pounder guns.

Royal Field Artillery.—Eleven brigades, each consisting of headquarters and four batteries. Of these brigades, five had each two batteries of six 18-pounder guns and two batteries of six 4.5" howitzers. The high proportion of howitzers to guns was adapted to the peculiar nature of the terrain in which the brigades were likely to operate in war. The remaining six brigades had each three batteries of six 18-pounder guns and one battery of six 4.5" howitzers. This is now the normal composition. Four divisional ammunition columns were maintained for the ammunition supply of eight brigades. For the supply of the remainder, three brigade ammunition columns were maintained.

Medium Artillery.—Three brigades, two consisting of four batteries and one of three batteries.

Nine of the batteries were to be armed with six 6" howitzers, 26 cwt., and two batteries with six 60-pounders. Two of these batteries were horse drawn and the remainder tractor drawn.

Pack Artillery.—Six brigades, each consisting of headquarters, one British battery and three Indian batteries; also one unbrigaded Indian battery (for duty in Burma).

Each battery had four guns. The one British and two Indian batteries in each brigade were to be armed with 3.7" howitzers, and one Indian battery with 2.75" guns.

Coast Artillery.—One headquarters and two companies at Bombay, and one company each at Fort William, Karachi and Rangoon.

Frontier Garrison Artillery.—One corps manning 12 posts.

Indian Coast Artillery.—One corps with detachments at four coast defence stations.

Training Centres.—One centre for Indian ranks of Horse, Field and Medium Artillery, and another centre for Indian ranks of Pack Artillery. These centres were created for the recruitment and training of Indian personnel required for batteries.

The important features of change in the reorganization of 1921, features which were maintained in the final reorganization of 1923, were as follows:—

- (a) In each branch of the artillery, batteries were placed on a uniform establishment. Problems of maintenance, relief, and training were in this way greatly simplified.
- (b) In the Royal Horse and Royal Field Artillery a considerable admixture of Indian ranks had been made, and machinery had been created to provide for maintenance in war.
- (c) In the Field Artillery, 18-pounder and 4.5" Howitzers Batteries were placed in the same brigade, in the proportion of 3 to 1 or 2 to 2.
- (d) Tractor drawn Medium Artillery, armed with an up-to-date weapon (6" howitzer, 26 cwt.) had been introduced.
- (e) The pack artillery howitzer (3.7") had been introduced, which greatly increased the efficiency of this arm; and the Pack Artillery was organized in mixed brigades of one British and three Indian batteries.
- (f) The inland fort companies of Royal Garrison Artillery had disappeared and the number of coast defence

companies had been reduced. These companies, consisting as they did entirely of British personnel, were exceedingly expensive. The duties of the inland fort companies were now to be carried out by the non-mobile sections of medium batteries or by infantry or Auxiliary Force detachments.

The peace establishment of artillery must, as in other arms, bear a definite relation to its war establishment. The primary and universal requirement is that the peace establishment must contain a sufficient margin to provide with absolute certainty that each unit will be able to mobilize at war strength and to meet certain additional demands which mobilization entails. In the case of the artillery arm, it was a matter of some difficulty to combine the technical reforms, enjoined by the lessons of the Great War, with ample peace establishments, if a reasonable limit of cost were not to be exceeded. There were two possible expedients, one being to reduce the war establishment below the strength theoretically desirable, the other being to form a reserve in India to meet war wastage. Actually both these methods were employed: and the result upon the organization of a field battery, which may once more be taken as a typical example, was as described in the following paragraphs.

It has been shown that a war establishment is built up from the smallest sub-unit, i.e., the sub-section, the strength of which could not be reduced. The only alternative, therefore, was to reduce the number of sub-sections which went to constitute the battery. This was done and under the present system a field battery mobilizes with two sections only (four sub-sections). The remaining section of the peace establishment is available for reinforcement, or for internal security duties on a reduced establishment.

The pre-war field battery was almost entirely a British unit: and any reserve which is maintained in India must necessarily be Indian. It was essential, therefore, to employ a considerable proportion of Indian ranks in the field artillery establishments if a reserve were to be created. This step was accordingly decided upon.

Indians are now employed as drivers and artificers in the Royal Horse and Field Artillery and in medium batteries, and as drivers, gunners and artificers in the Pack Artillery. In the Frontier

Garrison Artillery they are employed as gunners and artificers and in the Indian Coast Artillery as gunners only.

In 1923, the Indian Retrenchment Committee recommended that the cost of the Artillery should be reduced by 10 per cent.

The recommendations of the Retrenchment Committee of 1922-23 and the resulting reductions in the artillery. The recommendation was accepted by the Government of India and to effect the saving, the following measures were decided upon:—

- (i) The abolition of 1 Royal Horse Artillery battery and its ammunition column.
- (ii) The reduction of first line ammunition wagon teams in Royal Field Artillery batteries from 6 horses to 4 horses.
- (iii) The reduction of 3 British signallers in all batteries of artillery.
- (iv) The abolition of 1 Royal Field Artillery brigade ammunition column.
- (v) The reduction of the reinforcement brigade Royal Field Artillery to a low 4-gun establishment.
- (vi) The reduction of three brigades Royal Field Artillery to a 4-gun establishment, sufficient gunner personnel being retained to man guns for internal security purposes. The 2 guns for internal security will be transported in emergency by lorries.

The total reduction of personnel effected was:—

British officers	23
British other ranks	993
Indian officers	4
Indian other ranks	827
Followers	568
Horses	1,731
Guns and Vehicles	120

The peace organization of artillery at the present day is consequently as follows:—

Royal Horse Artillery.—One brigade consisting of headquarters, three batteries and three ammunition columns, and one unbrigaded battery and ammunition column.

Each battery is armed with six 13-pounder guns.

Royal Field Artillery. Higher and Lower Establishment Brigades.—Seven brigades on the higher establishment, each consisting of headquarters and four batteries. Three brigades on the lower establishment, each consisting of headquarters and four batteries.

Of the seven brigades on the higher establishment, four brigades consist of two batteries, each armed with six 18-pounder guns, and two batteries each with six 4.5" howitzers. Three brigades consist of three batteries, each armed with six 18-pounder guns, and one battery with six 4.5" howitzers.

Of the three brigades on the lower establishment two consist of three batteries, each armed with six 18-pounder guns, and one battery with six 4.5" howitzers, and one brigade of two batteries armed with six 18-pounder guns, and two batteries armed with 4.5" howitzers. Two guns in each battery are immobile.

Royal Field Artillery, Reinforcement Brigade.—The reinforcement brigade consists of three batteries, each armed with four 18-pounder guns, and one battery with four 4.5" howitzers.

In war this brigade will be broken up to form the 3rd Divisional ammunition column.

Royal Field Artillery, Ammunition Columns.—Two Divisional ammunition columns are maintained for the artillery of the first and second divisions, and one brigade ammunition column for the covering force brigade on the frontier.

Pack Artillery.—Six brigades each consisting of headquarters, one British and three Indian batteries, also one unbrigaded battery and one section.

The British battery and two Indian batteries per brigade are armed, or in process of being armed, with four 3.7" howitzers; the remaining batteries are armed with four 2.75" guns.

Medium Artillery.—Two brigades, each consisting of one horse-drawn and two tractor-drawn batteries. In addition there are three tractor-drawn batteries, two armed with 6" howitzers and one with 60-pounder guns on a lower establishment, each with only one section mobile. For administrative purposes one of these lower establishment batteries is brigaded with each of the two Medium Brigades: the third battery (armed with 60-pounder guns) is unbrigaded. In each brigade, therefore, there are three tractor-drawn and one horse-drawn batteries: in one brigade the horse-drawn battery is armed with 60-pounder guns, in the other with 6" howitzers.

Coast Artillery.—One headquarters and two companies at Bombay and Karachi, and one independent company at Calcutta.

Frontier Garrison Artillery.—One corps manning twelve posts. The posts are:—

Kohat.	Bannu.	Malakand.
Samana.	Dardoni.	Shagai.
Thal.	Peshawar.	Chakdara.
Chaman.	Hindubagh.	Fort Sandeman.

The corps is responsible for manning the armament allotted for the defence of these posts.

Indian Coast Artillery.—One corps with detachments at two coast defence stations, Bombay and Karachi. The rôle of this corps is to assist the coast defence companies of the Royal Garrison Artillery stationed at Bombay and Karachi in the less technical duties connected with the manning of the defences. A special section at headquarters performs launch and boat duties for the outlying forts at Bombay.

Artillery Training Centres.—The functions of the training centres have already been described. These functions remain unchanged.

The peace establishments, after effect has been given to the latest reductions, are shewn in Appendix XVII.

Existing Peace Establishments.

Chapter VIII

The Royal Engineers and the Engineer Services

SUCCESS in modern war is largely dependent upon the use of mechanical aids and contrivances, and the duties which the engineering services of an army are called upon to perform are important and multifarious. Where troops are engaged in actual operations against an enemy, the engineers are required to overcome any obstacles preventing the rapid progress of the army, by constructing or improving roads, railways, bridges and other means of communication; and they have on the other hand to impede the progress of the enemy, by demolishing all facilities that exist for his advance, and by placing every possible obstacle in his path. In addition the engineers are required to construct such defences as are necessary, and to provide for the accommodation of the troops when in camp, this including all arrangements for water-supply, sanitation, and other essential services. Behind the scene of actual operations, that is to say, at the base, where food, stores and reinforcements are collected, and on the lines of communication, along which everything required by the fighting troops has to be supplied, the engineers have to arrange for defences, communications, hospitals, and hutted camps, and to instal, amongst many other requisites, pumping, electrical and ice-making machinery.

For the performance of these duties an exceptionally high standard of qualifications is necessary. The science of engineering has long passed the stage where one man can be expected to be an expert in every branch of the profession. A sound knowledge of all the main departments of engineering work is, however, demanded of the officer of the military engineering services: and he must also be acquainted with the organization of the army, its manners and customs, and its needs at all times. He must in fact be a trained soldier, possessing a knowledge of every aspect of the art of war. The military engineer has, moreover, special difficulties to contend against. The factors that enter into every engineering problem are time, labour, transport and materials. In ordinary civilian practice the engineer can think

out the problem at leisure: and, in arriving at the result, economy and permanent stability are all that he need look to: time is rarely of importance, while labour, transport and materials are easily obtained. With the military engineer in war, time is almost invariably the predominating and, as often as not, the vital factor, while labour, transport and material may have to be rapidly improvised from what is available at the moment. On the rapidity and success of his work there may depend the fate of an army. Even in the areas behind the zone of active operations, the engineer has usually to deal with new conditions, and he must be able to organize labour from personnel to whom the conditions of work may be as novel as they are to him. It is true that, for much of the work behind the fighting line, civilian engineers can be utilised, but even here the direction must lie in the hands of trained military engineers.

Such are the duties and responsibilities of a military engineering service. It is essentially a service which from its technical military character cannot be improvised in war, and must be maintained in a state of high efficiency during peace.

The engineer services in war are constituted in two main branches, namely, those required by the troops engaged in active

Division of the Engineering Services in war into two branches. The form in which the two branches exist in peace, namely, (a) the Sappers and Miners and Pioneers; and (b) the Military Works or Military Engineer Services.

operations against the enemy, and those required at the base and on the lines of communication. With the field army, field units are employed, the nature of which varies with the type of military formation they are required to serve. The personnel of field units, in addition to being engineers,

must be fully trained and disciplined soldiers. Behind the fighting line it is feasible to employ units whose military training is negligible, while circumstances may at times permit of the work required being executed by local or imported civilian labour.

The number of field engineer units maintained in peace depends upon the strength of the field army that it has been decided to maintain, and should contain also the means for expansion, to keep pace with the expansion of the field army. The field units in India consist of the Corps of Sappers and Miners, and a number of Pioneer Regiments.

Separately from the field units, it is necessary in war, as already explained, to provide the engineer personnel required to carry

out works at the base and on the lines of communication, and also to provide an engineer organization on the staffs of Divisions, Armies, and Army Headquarters, whose duty it will be to direct engineer operations and services, and to provide the engineer material required. For this second category of duties, and to bring up to war strength the companies of Sappers and Miners, it is necessary to maintain in peace a number of officers and subordinate personnel, who have been trained for the purpose: and these are employed in peace time in the Military Engineer Services, or, as they were formerly known, the Military Works Services, who are charged with the execution and maintenance of all engineer services required by the army in cantonments.

These are the principles on which the Engineer organization of the army consists of two main branches, *viz.*, the "Sappers and Miners" and "Pioneers" and the "Military Engineer Services." In war it is essential that both branches should be under one control in all military formations. In peace, unity of control is equally desirable in order to ensure adequate preparedness for war: and the system of peace administration of the Engineer services, which will be described later, has recently been reconstructed to this end.

The great majority of the officers employed in the military engineering organization in India are drawn from the Corps of

The Corps of Royal Engineers.

Royal Engineers, which, as is well known, is a part of the British Army. In the days of the East India Company, India maintained

her own Indian Corps of Engineers, the officers for which were recruited and trained in England. This Corps was divided into three branches, one for each of the Presidencies of Bengal, Bombay and Madras. In 1860 the Indian Corps of Engineers was amalgamated with the Imperial Corps of Royal Engineers, and the system thus inaugurated continues to the present day. The history of the Corps of Royal Engineers is outside the scope of this book. Its fame, moreover, is widely known. The Corps has accompanied the British Army in all its campaigns for many centuries and its traditions are second to none. It shares with the Royal Artillery, with which it was once amalgamated, the proud motto—"Ubique, quo fas et gloria ducunt."

It is necessary, on the other hand, to describe the manner in which the Royal Engineer officer, who serves in India, is recruited and trained. Between the ages of 17½ and 19½ a candidate has to qualify, in a competitive examination, for admission to the Royal

Recruitment and training of Royal Engineer officers.

Military Academy at Woolwich, where, if successful, he receives a training in military subjects for a period of two years. After a year at the Academy, cadets are divided into Engineer and Artillery cadets, and, on passing the final examination, the Engineer cadet receives a commission in the Royal Engineers. The young officer is then sent to the School of Military Engineering, where for two years he receives instruction in military engineering, and also in military subjects of a more advanced nature. He is then posted for duty with an Engineer unit in England or is sent on a tour of foreign service. In the case of India the tour is for five years, but, if an officer is suitable and willing, he is permitted to continue to serve in India and, after 18 years Indian service, he becomes eligible for an Indian Army pension. After completing a tour of service an officer is permitted, on giving six months notice, to revert to Home service.

On arrival in India, the young officer is attached to one of the Corps of Sappers and Miners for a few months, where he learns how to work with Indian troops. He is then permitted to elect for service in the Sappers and Miners or the Military Engineer Services, or he may be permitted to enter one of the civil departments of Government, *e.g.*, the Public Works Department, the Railway Department, the Survey of India or the Mints, where he obtains a varied experience of engineering work, and still remains available for war. Before promotion to Captain, every officer has to pass an examination in military engineering and military subjects: before promotion to Major, he again has to pass in military subjects, and before reaching the rank of Lieutenant-Colonel he must qualify for promotion at the Senior Officers School.

Up to the rank of Major, officers are interchanged between the Sappers and Miners and the Military Engineer Services, so as to ensure that their training both with troops and on the construction of works is kept up to date. When an officer in military or civil employ has served for at least 7 years continuously in India, and is prepared to continue to serve in India for a further period, he is sent to the School of Military Engineering for a further course in military training and engineering, in order that he may be acquainted with the latest developments in military thought and engineering practice. Officers are encouraged to undergo special courses in England on engineering subjects, more especially in electrical and mechanical work.

The following table gives the distribution (1923) of the Royal Engineer officers employed in India:—

Commands and Staffs of the Army	16
Sappers and Miners	110
Military Engineer Services	171
Survey of India	38
Railway Department	50
Public Works Department	16
Mints	4
Miscellaneous	5
Colonels and Lieutenant-Colonels on the unemployed list	6

The system of engineer organization and administration, which exists to-day, differs materially from the system obtaining in 1914,

when the principal functionary in the engineering services in India was the Director General of Military Works. As his designation implies, he was principally concerned with the construction of works and he was merely *ex officio* Inspector of Sappers and Miners. He had, however, the right of direct communication with the Commander-in-Chief on all questions affecting his department. The present system is the result of careful and prolonged study of the problems of engineer organization, as illustrated by the experience of the Great War in both the western and eastern theatres: and it was not evolved until trial had been made, after the war, of a structure the conception of which was fundamentally different.

The Army in India committee of 1919-20 recommended that the Director-General of Military Works should become a Director

of Works subordinate to the Quartermaster-General, and that there should be a separate Inspector of Sappers and Miners and Pioneers under the Chief of the General Staff. The most striking feature of the scheme thus advocated was that it abolished unity of control over the engineer services. The recommendation was accepted by Government and the scheme was put into operation. It did not survive long. Royal Engineers did not like their new designation as Works officers, and regarded the position assigned to the engineering services as one of inferiority. It was contended that the loss of independence, and the absence of solidarity and

unified control, which the new system entailed, were liable to impair seriously the efficiency of the engineering organization.

Lord Rawlinson, before he became Commander-in-Chief, had been president of a committee assembled in England after the war

The reorganization of 1923. to consider certain matters of importance connected with the organization of the Corps of Royal Engineers. Under his orders, as Commander-in-Chief, a further reform of the engineering services in India was undertaken. The scheme devised has recently received the approval of the Secretary of State. As the simplest method of describing its essential features, the following passages are reproduced from the Army Instruction (India) of the 4th December 1923 which brought it into force.

“ It has been decided, with the approval of the Right Honourable the Secretary of State for India, to organize the Engineer Services in India under an Engineer-in-Chief who will be borne upon the establishment of Army Headquarters, and will be directly responsible to His Excellency the Commander-in-Chief.

The present system of administration and organization.

The Engineer-in-Chief.

“ The Engineer Services in India consist of the Corps of Sappers and Miners and the Military Works Services. The Corps of Sappers and Miners will continue to be administered as heretofore, but the Technical Adviser, Royal Engineers, (Colonel on the Staff, Royal Engineers), will become a Staff Officer of the Engineer-in-Chief. The Military Works Services will be designated the Military Engineer Services, and will cease to be administered as a directorate of the Quartermaster General's Branch. The Engineer-in-Chief will be the head of the Corps of Royal Engineers in India, and will retain all the powers and privileges that have from time to time been granted to the Director of Military Works, whose appointment is now abolished.”

“ The Engineer-in-Chief will not be a Staff Officer, but will be the technical adviser of His Excellency the Commander-in-Chief on all military engineering matters, responsible for:—

- (a) Engineer operations and engineer services during war and peace.
- (b) The preparedness for war of the engineering services.
- (c) The supply of engineer stores during war and peace.
- (d) The execution and maintenance of all military works.
- (e) The constructional efficiency, accuracy and economy of all projects and designs submitted by him.”

“ The Engineer-in-Chief will advise and take the orders of His Excellency the Commander-in-Chief, through the prescribed Staff Relations with the Officer at Army Headquarters, on the Staff at Army Headquarters, subjects enumerated below:—

A.—Through the Chief of the General Staff.

- (i) Engineer works immediately connected with war or manœuvres.
- (ii) Engineer preparation for war.
- (iii) Liaison with the civil engineering professions and their utilisation in war.
- (iv) Study and the development of all engineering possibilities, that may assist the Army in war.
- (v) Engineering Intelligence.
- (vi) Technical instruction in schools and the preparation of training manuals.
- (vii) Engineer training and the technical inspection of engineer and Pioneer units.
- (viii) War organization and establishment of engineer units.
- (ix) Scales and designs of engineer equipment and mobilization reserves of engineer stores.
- (x) Siting and design of fortifications, defences and strategic roads.

B.—Through the Adjutant-General.

- (xi) Peace organization and establishment of engineer units.
- (xii) Organization, pay, pensions, and conditions of service of all military personnel controlled by the Engineer-in-Chief.

C.—Through the Quartermaster-General.

- (xiii) Military Works policy and finance.
- (xiv) Engineer services during war, other than those immediately connected with operations, including the construction of railways, communications, harbour works, etc.
- (xv) Supply of engineer stores, other than those supplied by other services.

D.—Through the Military Secretary.

- (xvi) Demands on the War Office for completion of the Indian establishment, posting, reversion to British establishment, deputation, selection for all appointments of officers of the Corps of Royal Engineers in military and civil employ."

The establishment of officers attached to the Engineer-in-Chief. "The Engineer-in-Chief will be assisted by:—

- (a) The Colonel on the Staff, Royal Engineers, who will deal with items (i) to (ix) and (xi) above, as well as with all questions concerning the Corps of Sappers and Miners and other engineer units.

In dealing with items (i) to (ix) the Colonel on the Staff, Royal Engineers, whilst keeping the Engineer-in-Chief fully informed of all his actions, will refer direct to the Chief of the General Staff. The Colonel on the Staff, Royal Engineers, will also be authorised to carry out technical inspection of engineer and Pioneer units.

- (b) The Deputy Engineer-in-Chief for works, who will deal with items (x), (xiii) and (xiv) above, as well as with all questions relating to the organization of the Military Engineer Services.

- (c) The Deputy Engineer-in-Chief, Electrical and Mechanical, who will deal with all questions concerning Electrical and Mechanical installations and services, and with the supply of engineer stores.

- (d) A Staff Officer, Royal Engineer, first grade, who will deal with items (xii) and (xvi) above, other than questions concerning the Corps of Sappers and Miners.

- (e) Additional staff officers as required."

"The Engineer-in-Chief will correspond direct with Engineer officers in formations, on technical matters, and is entitled to call for estimates and information, to enable him to submit proposals to Government, or to give advice to the Staff at Army Headquarters. In respect of the provision of accommodation and communications, and the allotment of funds, the Engineer-in-Chief will communicate the decisions of the Quartermaster General.

Relations with subordinate military formations.

"The relations between General Officers Commanding-in-Chief, Commands, and their Staffs on the one hand, and Chief Engineers on the other, will be analogous to the relations between His Excellency the Commander-in-Chief and the Army Headquarters Staff and the Engineer-in-Chief. The duties of Chief Engineer will in all respects be similar to the duties of the Engineer-in-Chief. In the Northern Command, the Chief Engineer will be assisted by a Staff Officer, Royal Engineers, first grade, whose duties will correspond to those of the Colonel-on-the-Staff, Royal Engineers. In other Commands these duties will be performed by the Chief Engineer. Chief Engineers will be provided with the staff separately prescribed."

"For the conduct of the Military Engineer Services, there will be a Commanding Royal Engineer, 1st class, for each of the Peshawar, Rawalpindi, Lahore, Baluchistan, Waziristan, United Provinces, Poona, Central Provinces and Madras Districts, and Commanding Royal Engineers, 2nd class, for the remaining second class military districts, and Assistant Commanding Royal Engineers for Military Engineer Services sub-districts. These officers will not be responsible for the engineer training of troops. They will be assisted by garrison engineers as may be found to be necessary.

Assistant Commanding Royal Engineers, Commanding Royal Engineers and Chief Engineers will be responsible, respectively, to Commanding Royal Engineers, Chief Engineers and the Engineer-in-Chief, for the accuracy and economy of all designs submitted by them, and for the technical execution of works and the maintenance of roads and buildings in their area."

The system of organization described in this extract explains itself. It embodies in the clearest manner possible the principle of unification to which reference has previously been made, and no further comment is necessary. The structure at Army Headquarters and at the Headquarters of Commands is further illustrated in graphic form in Appendices XIII, XIV and XV.

The need for employing special engineer units as part of an army arose from the inability of the infantryman to overcome an enemy, who was entrenched behind strong fortifications, where sapping and mining was needed under the direction of skilled engineers. In the early days of the Indian Army, engineer units were raised by detaching selected men from other units, and these

Sappers and Miners. A Retrospect.

temporary units were broken up on the close of the operations. At the commencement of the nineteenth century, it was found to be more convenient to retain these units in peace as pioneer regiments, and they developed later into three Corps of Sappers and Miners, one for each of the three Presidencies, Bengal, Madras and Bombay. These three corps have survived to the present day, though their titles and organization have been varied from time to time. They are known as—

King George's Own Bengal Sappers and Miners, with headquarters at Roorkee.

Queen Victoria's Own Madras Sappers and Miners, with headquarters at Bangalore.

Royal Bombay Sappers and Miners, with headquarters at Kirkee.

Recently the Burma Company of Sappers and Miners has been detached from the Madras Corps as the Burma Corps of Sappers and Miners, with headquarters at Mandalay. Since their formation the Sappers and Miners have accompanied the Indian Army in all its wars, and a reference to the Indian Army List will show the battle honours they have earned. Their traditions are equal to those of any unit in the Indian Army. During the Great War the three corps were called upon to train, provide, and maintain numerous engineer units in France, Palestine, Iraq, Aden, East Africa and the North-West Frontier of India. The great expansion which took place is shown by the fact that the establishment of King George's Own Sappers and Miners alone rose from 1,700 in 1914 to 10,000 on Armistice day 1918.

The Pioneers of the Indian Army are dealt with in Chapter X. The British Army possessed no Pioneer battalions in 1914, but following the example set by India, a pioneer

Pioneer battalions. battalion was raised for every division of infantry during the war. After the war it was decided to amalgamate the Pioneers with the engineer units (field companies) allotted to a division. The process was not applied to the Indian Army, since the high traditions of the Indian Pioneers were worth preserving.

The Organization of the Sappers and Miners. The composition of the Corps of Sappers and Miners is as follows:—

King George's Own Bengal Sappers and Miners.

Headquarters and 3 Depôt Companies.

2 Field Troops.

6 Field Companies and the Chitral Section.

1 Army Troops Company.

1 Bridging Train.

2 Divisional Headquarters Companies.

1 Printing Section.

1 Photo-Litho Section.

2 Defence Light Sections.

Queen Victoria's Own Madras Sappers and Miners.

Headquarters and 3 Depôt Companies.

2 Field Troops.

5 Field Companies.

2 Army Troops Companies.

1 Divisional Headquarters Company.

1 Printing Section.

1 Photo-Litho Section.

Royal Bombay Sappers and Miners.

Headquarters and 3 Depôt Companies.

6 Field Companies.

1 Fortress Company (Aden).

1 Divisional Headquarters Company.

2 Railway Companies.

1 Printing Section.

1 Photo-Litho Section.

2 Defence Light Sections.

Burma Sappers and Miners.

Headquarters and one Depôt Company.

1 Field Company.

1 Defence Light Section.

The personnel of the corps consists of Royal Engineer officers, Indian officers holding the Viceroy's commission, a certain number of British non-commissioned officers, Indian non-commissioned officers and Indian other ranks. The first three Corps are commanded by a Lieutenant-Colonel, who is assisted by two Majors, as

Superintendents of Park and Instruction, an Adjutant, a Quartermaster, two Subadar-Majors, a Jemadar Adjutant and a Jemadar Quartermaster. The staff of the Burma Sappers and Miners is proportionately less.

Field Troops are mounted units, trained to accompany cavalry, and are equipped to carry out hasty bridging, demolition and water supply work. Field companies are trained

Types of units. to accompany infantry. Divisional headquarters companies are small units containing highly qualified "tradesmen," and are trained to carry out technical work in connection with field workshops. Army Troops companies are somewhat smaller units than field companies: they are required to carry out work behind divisions, under the orders of Chief Engineers, *e.g.*, heavy bridging work, large water-supplies, electrical and mechanical installations. The Bridging Train comprises a sufficient number of pontoons to make a number of floating bridges.

The training of the Sapper. The training of the Indian sapper falls under three heads:—

- (a) Infantry training, which includes drill, musketry and physical training.
- (b) Training in military engineering, which includes field defences, demolition, bridging, encampments, water-supply, etc.
- (c) Trades training as masons, bricklayers, blacksmiths, fitters, carpenters, etc., for which purpose each Corps is equipped with workshops.

It will be obvious that a trained sapper cannot be produced at short notice: and the full period of training is two years. For this reason it is essential that there should be no difference between the peace and war establishments of a Sapper and Miner unit. During war the training is reduced to nine months, and a reserve is maintained to provide for the reinforcements needed during the first nine months of war. The probable demand for reinforcements is calculated at 1,627, but at present the establishment of the reserve, for financial reasons, has been reduced to 920.

The organization of Pioneer battalions is dealt with in Chapter X. The pioneer is not a "tradesman." He is trained in elementary field engineering, more especially in road construction.

Organization of training of Pioneers.

The history of the Military Engineer Services has an interest of its own. In the eighteenth century and the earlier part of the

The Military Engineer services. A Retrospect.

nineteenth century, the engineering requirements of the army preponderated over those of other departments, and, as conditions became more stable, there came into being a Public Works Department under the control of the "Military Board." The department was manned by the Indian Corps of Engineers, who were entirely military in character. Civil works gradually began to assume a greater importance, notably with the construction of the Grand Trunk Road from Calcutta to Delhi, and of the Ganges Canal from Hardwar to Cawnpore; civilian engineers commenced to be employed in increasing numbers: and provincial Governments began to be dissatisfied with the military control over works executed on their behalf. In 1851 the Public Works Department

Civil control. was brought under civil control, but no separate organization was believed to be

necessary for military works, as it was considered to be more economical for the same agency to execute both military and civil works. After 1860 there was a boom in the construction of civil works: the Public Works Department was greatly expanded and large numbers of civilian engineers were engaged. In course of time the Military Department found that they suffered from the loss of control over military works; funds were not expended as they desired and barracks fell into disrepair. Matters were brought to a head by the failure of barracks at Saugor, Allahabad, Jubbulpore and elsewhere, and in 1871 the control of large military works, as well as all military works

1871.—The Military Works Branch of the Public Works Department.

in the cantonments in Bengal, were placed in charge of a Military Works Branch of the Public Works Department under an Inspector General of Military Works. But it was not until 1881

1881.—Assumption of military control.

that the control of the Military Works Branch or Department, as it now was called, became vested in the Military Department, and it was not until 1889 that this department took over all military works in India. In 1899 the Public Works Department system of grading officers, which clashed with the system of military rank, was abolished, and the Military Works Department became entirely military in character. The department was then designated the Military Works Services, and its head the Director-General of Military Works. The later evolution of the higher

The Military Works Services.

organization of the department and the process by which it acquired its present title "the Military Engineer Services" have been described in an earlier part of this chapter.

The Military Engineer Services.

The Military Engineer Services are divided into 3 branches, viz., "Buildings and Roads," "Electrical and Mechanical" and "Stores." The unit in the Buildings and Roads branch is the sub-division, which is in charge of a Sub-divisional officer (Military or Civilian upper subordinate), who is assisted by one or more Sub-overseers (lower subordinates, civilians). Two or more sub-divisions are grouped under a Garrison Engineer. The unit in the Electrical and Mechanical branch is the power station, ice factory, water-supply, group of road rollers or workshops, and one or more units are grouped under a Sub-divisional officer, who is supervised by a Garrison Engineer. The Stores branch deals with engineer stores and barrack furniture. For every sub-district store there is a storekeeper, and for every sub-district there is a Barrack Master (Commissary, Deputy or Assistant Commissary, ranking from Major to Lieutenant) or an Assistant Barrack Master (warrant officer), assisted by two or more Barrack Serjeants, who deal with the supply of barrack furniture to troops. At Lahore there is a Command Park for the supply of engineer stores, and at Roorkee there is a Command workshop for minor manufacture and repair work.

Organization of the Military Engineer Services.

The Military Engineer Services control all military works in India, Burma, the Persian Gulf, and Aden, except in the case of a few small outlying military stations, which are in charge of the Public Works Department. They control all works for the Royal Air Force and for the Royal Indian Marine; and they are charged with all civil works in the North-West Frontier Province and Baluchistan, under the orders, in each of these two areas, of the Chief Commissioner and Agent to the Governor General. They also control civil works in Bangalore, under the Mysore Government, and in Aden.

Chapter IX—Indian Cavalry

IN 1914 there were in the Indian Army thirty-nine regiments of cavalry, besides the Bodyguards of His Excellency the Governor General and Their Excellencies the Governors of Madras, Bombay and Bengal, and the Aden Troop, which is maintained for local service in Aden.

Pre-war strength and organization.

Two systems of organization were in force, known as the silladar and non-silladar systems.

The non-silladar system was, generally speaking, the same as the system of organization employed in the British Cavalry. Three only of the thirty-nine Indian Cavalry regiments were organized on this system; these were the 26th King George's Own Light Cavalry, the 27th Light Cavalry and the 28th Light Cavalry, all of which had in the past formed part of the Madras Army. They were the oldest surviving Indian Cavalry regiments, and there is no exact record of the date when the 27th Light Cavalry, the senior of the three, was raised. It is, however, known that this regiment was in the service of the Nawab of Arcot prior to 1780, and was received into the service of the East India Company in 1784. It may be worth recording here that a curious anomaly existed in the numbering of the Madras Cavalry regiments. In early days it had been customary for the regiments to take their relative seniority from the seniority of their respective Commanding Officers. This system necessitated frequent changes in numbering and when, in view of the obvious inconvenience involved, the system was finally abandoned, it happened that the title "First" was held by the regiment which in point of fact was raised at a later date than the other two. This was overlooked at the time of the renumbering under Lord Kitchener's reorganization, and the junior regiment became the 26th. The claims of the other two regiments were, however, restored in the post-war scheme of reorganization, as will be seen later in this chapter.

The other thirty-six Indian Cavalry regiments were organized on the silladar system. In origin this was a yeomanry system, under which the individual soldier supplied and maintained his horse, clothing, equipment,

The silladar system.

arms (other than his rifle), and lines, receiving in return a higher rate of pay than the non-silladar soldier, whose needs were furnished by Government. The more wealthy and influential silladars were also allowed to enlist fellow countrymen, who were too poor to provide their own horses and equipment. The men so enlisted were known as Bargirs and were equipped and maintained at the expense of their more fortunate patrons, who in turn drew a recognized proportion of the pay of their Bargirs.

In course of time it was found that the increasing standard of efficiency demanded of the Indian Cavalry necessitated a horse and equipment of better quality than that usually obtainable by the silladar. It thus came about that the original system was modified, and, while the silladar remained the owner of his horse and equipment, the recruit, instead of bringing and replacing, when necessary, his horse and equipment, was required to pay to the regiment on enlistment a sum of money, known as his assami, wherewith the horse and equipment were purchased under regimental arrangements. A monthly sum was also taken from the pay of each man to provide for the replacement of horse and equipment which became unserviceable. In this way the man was subjected to the deduction of a constant sum, and spared the pecuniary embarrassment which occurred, for instance, in the event of the untimely death of his horse. The new system proved popular, not only for this reason, but also because at the end of his service the silladar was repaid the value of his assami in cash, and his horse and equipment were taken over by the regiment for issue to the recruit entertained in the place of the man discharged.

With the introduction of the assami system, however, it was found that the majority of recruits were unable to produce in cash the full amount of their assami. To avoid the necessity of borrowing at ruinous rates from money-lenders, it became the custom to insist on the production of part only of the assami in cash, the balance being advanced from regimental loan funds (which were assisted by Government loans), at a low rate of interest, and recovered by monthly deductions from pay. This procedure removed one of the causes which had led to the introduction of the Bargir, who soon disappeared except in a few regiments in which the Indian Officers were still allowed, even in 1914, to maintain their Bargirs.

The silladar system was markedly cheaper to Government in peace than the non-silladar. It was, however, only applicable in its entirety to peace conditions. The additional casualties among

horses and wear and tear of equipment, which are the inevitable concomitants of war, must obviously be made good at the expense of the country. This was adjusted by paying to Government the monthly cuttings normally paid in peace to the regiment. In return Government accepted the entire responsibility for maintenance during war and of returning the regiment with its full complement of serviceable horses and equipment on the termination of the campaign.

Prior to 1914 signs were not lacking that, on account of the rise in prices of horses and equipment, silladar regiments had begun to experience difficulty in equipping themselves adequately without making further demands on the soldier in the shape of increased cuttings from his pay. It is true that the situation was not universal as, thanks to better business methods and other circumstances, some regiments were markedly better off than others. It was, however, generally felt that the balance of pay left to the man (out of which, it must be remembered, he had in those days to feed himself as well as provide for his family) had reached so low a limit that any further increase in the contributions demanded from him would render service unattractive. Some assistance had been received from Government in the way of grants of land for horse farms, whereby the drain on regimental funds was relieved in some degree, but it was becoming clear that an increase of pay would soon be necessary if the standard of efficiency was to be maintained, and the superior type of recruit, who had been a feature of the silladar system in the past, was still to be attracted to serve.

With the outbreak of the Great War the maintenance of silladar regiments was transferred to the State. In the past the silladar system had stood the strain of war well enough, but never before had Indian Cavalry been employed on field service in such large

numbers, for so protracted a period, or so far from their recruiting grounds. By the silladar system in the Great War.

October 1915, the greatest difficulty was being experienced in maintaining silladar regiments, although the bulk of the Indian Cavalry in France had not then been seriously engaged. Enquiries were instituted into the causes of the difficulties and possible means of alleviation. The opinion of a large number of commanders of regiments and higher formations were collected, from which it was found that the main difficulties could be grouped under two heads, those of the general maintenance of the regiments in the field and those experienced in the administration of their depôts in India.

Under the first heading there were two major difficulties; the supply of reinforcements of the required classes, and the maintenance of equipment.

In the matter of reinforcements, the lack of an adequate reserve in peace, soon rendered it impossible for the depôts to keep pace with the demands of their respective regiments. It thus became necessary to supply reinforcements from the regiments remaining in India which were not engaged in active operations. There was no system of linked regiments in existence, nor could one be improvised satisfactorily owing to the great diversity of the class composition of Indian Cavalry regiments. It thus came about that drafts sent to the theatres of war had to be pooled before distribution to units in the field, which, in consequence received their reinforcements from a variety of sources. This in itself would not have been a serious obstacle, had it not involved complications in the depôts of the regiments in the field, and in many cases enforced service among strangers to which the Indian soldier holds a rooted objection.

The difficulty experienced in the replacement of equipment was due to the fact that in peace silladar regiments were allowed to adopt their own patterns of saddlery, clothing and equipment. It was obviously impossible for Ordnance Depôts to hold stocks of every individual pattern; and it was often necessary to cast complete articles when some small part only was in need of replacement. This was wasteful in the extreme, and the alarming demands for replacements which arose gave a distorted impression of the quality of the equipment maintained in peace. As the original articles wore out and were replaced, the difficulty due to the diversity of patterns disappeared, nor was it at any time an insuperable obstacle to the continuance of the silladar system, any more than the reinforcement difficulty already referred to. Both however, indicated directions in which reforms were imperative on the termination of the war.

The difficulties experienced in depôts, and by the regiments which remained in India, were of a character much more destructive to the future continuance of the silladar system. They were mainly of a financial nature and their intricacy is hard to describe except at great length. Put as briefly as possible, the chief troubles were:—

- (a) While the unit in the field was administered on a non-silladar basis, the depôt remained entirely under the silladar system. The transfer of each man from the

depôt to the regiment, or *vice versa*, consequently involved extreme complication and delay in the adjustment of his accounts.

- (b) The heavy demands for recruits made it impossible to insist as in peace time on the production of part of the assami in cash. Moreover, if the whole assami had been lent from regimental funds, the recruit usually was drafted to the front long before he could refund the loan. Once he had gone to the front, the process of recovery became complicated as there was no means of knowing to what unit he would eventually be drafted. In consequence no assamis were demanded, and then the further complication arose that the recruit was receiving the more advantageous rates of pay of a silladar without having incurred the capital liability which entitled him to be treated as such.

- (c) Whenever a silladar was killed or invalided out of the service, his estate or the man himself was entitled to receive the value of his assami without delay. In war the amount due could not immediately be assessed, nor were regiments able, after a short time, to liquidate the claims against them on this score, as they were not receiving assamis from recruits. These claims should have been taken over by Government perhaps, but this was not done.

These three instances will suffice to show that there existed difficulties in the working of the silladar system in a war of the first magnitude which were entirely unprovided for. A variety

of expedients were suggested, but these were mainly of a character calculated to alleviate the immediate difficulties rather than to obviate their recurrence in similar circumstances. After careful consideration, in which full value was attached to the fine traditions and inherent economy of the silladar system in peace, it was agreed that, in view of the very drastic modifications required to meet war conditions, and the increasing volume of accounting work thrown on the shoulders of a commanding officer in peace, to the detriment of his more legitimate duties, the most satisfactory solution was to abolish the silladar system. This view was upheld by the Army in India Committee by whom the question was examined in February 1920. Two months later the approval of the

Secretary of State for India was accorded to the abolition of the silladar system.

Before the process of conversion of the thirty-six silladar regiments to a non-silladar basis was commenced, it had been decided, as a measure partly of economy and partly of readjustment, that 21 Indian Cavalry regiments only should be retained permanently in the post-war army, to which had to be added temporarily such regiments as were required by

Post-war reductions. His Majesty's Government for service in mandated territories. These additional regiments were to be retained only as long as they were needed for this specific purpose, and were to be maintained at the expense of Imperial revenues.

In order to give effect to this wholesale reduction, involving the eventual loss of eighteen regiments and 56 per cent. of the pre-war establishment of personnel, it was decided to adopt a

Amalgamation of pre-war regiments. scheme of amalgamation rather than of total disbandment of regiments. Accordingly

three regiments were selected for retention as separate entities and the remaining thirty-six were arranged in pairs, each pair being required to produce one reorganized non-silladar regiment. The three regiments selected for preferential treatment were the two oldest in the service, namely the 27th and 28th Light Cavalry, and the Guides Cavalry, which was now separated from the Corps of Guides of which it had hitherto formed an integral part.

Simultaneously with the conversion and amalgamation described above, a most important further measure of organization was introduced, which was designed to overcome the main difficulties experienced in the provision of reinforcements during the Great War. The twenty-one regiments were arranged in seven groups of three regiments each, and the class composition of all regiments was so readjusted that the three regiments in each group became identical in their class composition. In addition

Measure of reorganization: the group system. seven stations were selected, which formed suitable permanent locations for regiments

allotted to internal security duties, and one of these stations was allotted to each group, with the result that one of the three regiments of each group will always be located in a permanent regimental centre. A group dépôt will be formed in this station on mobilization and will be made responsible for the training and provision of reinforcements for the whole group. The group dépôt will be formed from the personnel surplus to the war establishments

of the regiments of the group, and the reservists of the entire group. In this way a pool of trained reinforcements of the correct classes, as well as a staff for recruit training, will immediately be available in each group.

Yet another measure of reorganization, making for greater efficiency in war, was introduced at the same time. This was the substitution of an establishment, in peace and war, consisting of three squadrons, with a headquarters wing, in which are collected the specialists such as machine gunners, signallers, armourers, etc.

The post-war organization of cavalry regiments. This takes the place of the former establishment, of four squadrons of identical composition, each of which had to furnish a proportion of specialists when required. This organization, which corresponds to that adopted in British Cavalry, presents obvious advantages in assimilating peace and war procedure.

The comprehensive reorganization outlined above was commenced in March 1921. In spite of the sweeping character of the reform, it was carried through in a manner which reflected credit on the regiments involved. It could not be finally completed until the last Indian Cavalry regiment serving overseas returned to India without relief by another regiment. This proved to be the 31st Duke of Connaught's Own Bombay Lancers, in November 1923.

So far no mention has been made of the additional Indian Cavalry regiments raised during the War, as their disbandment was in train or had actually been effected before the reorganization scheme took its final form. It is, however, worth recording that three regiments, known as the 40th, 41st and 42nd Cavalry, were raised in India between April and July 1918. Three more,

Other cavalry regiments. known as the 43rd, 44th and 45th Cavalry, were raised in Egypt in August 1918, from personnel rendered surplus to the immediate requirements of their regiments in consequence of the transfer of the Indian Cavalry Divisions from France to Palestine. The last named three regiments were despatched to India, where they were completed to their full establishment, but the necessity for their retention soon passed and they were disbanded in January 1919. The career of the 40th, 41st and 42nd Cavalry was longer, and they saw service in Baluchistan and East Persia before the international situation permitted their disbandment in 1921.

To turn to the minor units mentioned in the first paragraph of this chapter, the Aden Troop is still on a silladar basis: the

desirability of its conversion to a non-silladar basis has, however, been accepted and the change will shortly be carried out. Of the Bodyguards, that of His Excellency the Governor-General alone is chargeable to central revenues. All are organized on a non-silladar basis except the Bodyguard of His Excellency the Governor of Bombay.

The Establishment of an Indian Cavalry Regiment. The peace establishment of an Indian Cavalry Regiment comprises:—

14 British officers.

18 Indian officers.

504 Indian non-commissioned officers and men.

In each unit there is a Regimental Headquarters, with a Headquarters Wing and three Squadrons.

The Regimental Headquarters consists of the Commandant (Lieutenant-Colonel) with his Adjutant, Quartermaster, Risaldar Major, Woordie Major, Jemadar Quartermaster, Jemadar Clerk and a small administrative staff.

The Headquarters Wing is commanded by the Second-in-Command (Major) assisted by a Squadron officer (Captain or Lieutenant) and 2 Indian officers. It consists of a machine gun group and three other groups in which are collected the regimental signallers, armourers and other artificers and specialists.

Each squadron is commanded by a Major assisted by two squadron officers (Captains or Lieutenants) and 4 Indian officers. The squadron consists of a small squadron headquarters (3 British Officers and 9 Indian ranks) and four troops, each of which is in charge of an Indian officer. Three of the troops in each squadron are organized as sabre troops while the fourth is a Hotchkiss gun troop.

Chapter X—Indian Infantry and Pioneers

IMMEDIATELY prior to the outbreak of war in 1914, the Indian Infantry and Pioneers comprised 118 regiments. All these consisted of single battalions except the 39th Garhwal Rifles, and 10 Gurkha regiments, which each comprised 2 battalions. In 1914, therefore, the number of Indian Infantry battalions was as follows:—

	Battalions.
95 Infantry regiments of 1 battalion	95
11 Infantry regiments of 2 battalions	22
12 Pioneer regiments of 1 battalion	12
118	129

The single battalion regiments were linked together in groups of 2 to 5 units, and each group was allotted a regimental centre. All recruits who enlisted in one regiment or battalion thereby rendered themselves liable to serve in any other unit of the group of that regiment or battalion, and it was the intention that one unit of the group should always be located at the regimental centre. The object of linking units together in this way was that, in case of emergency, the unit at the regimental centre could be employed to reinforce the other units of the group. This organization was introduced in 1886 (*vide* Chapter I). It had the obvious disadvantage that, in practice, the units of the group could only be reinforced by depleting the strength of the unit which happened to be located at the regimental centre. As there were 43 of these centres it followed that, in cases of grave emergency, the system would have to be abandoned or 43 battalions, all fully trained, that is to say, one-third of the strength of the Indian Infantry, would not be available for active service.

In reality, linked battalions were independent of each other, and, whenever one of them proceeded on service or overseas, it left behind a depôt which was composed of 1 or 2 British officers, some

administrative and clerical staff, recruits and sick men and others surplus to war establishment. Each dépôt was a self-contained unit and as a rule had to be extemporized when the occasion arose. As each dépôt enrolled and trained its own recruits and maintained the records of the mobilised battalion, the officer commanding the dépôt had to keep in constant touch with the officer commanding the parent unit.

During the great war the linked battalion system was of necessity not employed and the depot system broke down. On the 1st December 1918, immediately after the armistice, there were 280 Indian Infantry battalions in the Indian Army. Of these 115 battalions were serving overseas on field or Imperial service. There were consequently 115 Indian dépôts in India, each in correspondence with a battalion commander overseas, each indenting separately on the Ordnance and Clothing Departments, each striving to train its own recruits and each competing with every other in the recruiting market. The dépôts had swollen to an average strength of at least 1,400 men, largely consisting of instructors, recruits or unfit men returned from overseas. The enormous numbers that kept passing through the dépôts rendered the satisfactory maintenance of records and accounts a problem of supreme difficulty, and in the ultimate result a state of confusion arose from which the dépôt commanders found it well nigh impossible to extricate themselves. The fundamental faults of the system were the isolation of the dépôts and the extemporised character of their formation.

To obviate these defects the training battalion system was introduced in 1921 and made applicable to all Infantry and Pioneer regiments, except the Gurkhas and the 106th Pioneers. By this system the battalions are linked together in groups of an average of 4, with 1 training battalion included in each group. The training battalion is designed to act as a permanent dépôt for all its "active" battalions both in peace and in war, and contains 1 training company for each of the active battalions to which it is affiliated. Each active battalion is responsible, at all times, for providing the commander and the administrative and instructional staff of the training company, while the training battalion, on its part, is responsible for providing the clerical staff, and for enrolling and training the recruits on behalf of the active battalion. By this means the officer commanding an active battalion is freed from the duties of obtaining and training recruits, and can

devote more of his attention, instead, to the higher training of the men of his own (the active) battalion.

The training company also provides, in peace, the nucleus of what would, under the former conditions, have been the dépôt of the active battalion. This nucleus is fully organized in peace to undertake in war the extra duties of maintaining the records, accounts, etc., of the active battalion, assisted by certain clerical, administrative and instructional personnel not required by the active battalion when it is mobilized. Indeed, in peace, the training battalion actually carries out on behalf of its active battalions most of the duties for which the former dépôts were responsible in war, and the necessity for extemporisation, which was the principal source of weakness in the dépôt system, is a thing of the past.

As in the former linked battalion system, all the recruits enrolled in a training battalion engage to serve in any active battalion affiliated to that training battalion. This liability is now real, and not superficial. By this means the basis of reinforcement for all active battalions is broadened, and in case of need each active battalion will look not to its own training company only, but to the training battalion as a whole, for the necessary reinforcements.

One great advantage of the system is the permanency of location of the training battalion, which thus provides a permanent home as well as a nursery for all the active battalions with which it is associated. The constant interchange of personnel between different active battalions and their training companies, and their association together in the training battalion for specified periods, create the most intimate relations between the active battalions and the training battalion, and with each other.

All the units of a group being thus made mutually dependent on each other for their efficiency and happiness, it was decided in 1922 to convert the groups into regiments, thus introducing the regimental system into the Indian Infantry and Pioneers. This entailed renumbering. The regiments are now numbered in succession throughout the army—pioneers separately. The designations of Gurkha regiments, which were already in existence, remain unchanged. The former single battalions have been converted into battalions and are numbered successively within their regiments. It is unnecessary to describe the details of the scheme. These can be ascertained by a perusal of Appendix V.

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With the introduction of the regimental system, the establishment of the Indian Infantry is now (1923) constituted as follows:—

	Battalions.
20 Infantry regiments consisting of	107
3 Pioneer regiments consisting of	12
1 Independent Pioneer battalion (4th Hazara Pioneers)	1
10 Gurkha regiments consisting of	20
—	—
34	140
—	—

In 1914 there were five different authorized establishments for Indian Infantry battalions, varying in strength of Indian ranks between 600 and 912. The majority of Establishments of Infantry battalions, 1914. battalions had, however, the following establishment:—

British officers	14
Indian officers	16
Indian other ranks	896
	912

This establishment was made up of the battalion staff consisting of the commandant, adjutant and quartermaster, and four companies. A maxim gun section was included in the establishment of battalions of the field army only.

In the reorganization of 1921, new peace establishments were drawn up, and the varying establishments of pre-war days were crystallised into the following:—

	British officers.	Indian officers.	Indian other ranks.	Total Indian ranks.
Infantry	Active	20	806	826
	Gurkhas	20	921	941
	Training (average establishment).	14	636	650
Pioneers	Active	16	784	800
	Independent	20	921	941
	Training (average establishment).	11	469	480

INDIAN INFANTRY AND PIONEERS

As a result of experience gained in the war, and in conformity with the method employed in the British Army, the above establishment was divided into battalion headquarters, headquarters company and four companies in the Infantry, and three companies in the Pioneers (four in the independent Pioneer battalion). Training battalions were made up of battalion headquarters and as many companies as there were active battalions in the group.

Consequent on recommendations made by the Retrenchment Committee of 1922-23, the strength of active Infantry and Pioneer battalions was reduced by 64 sepoys each, with the result that fresh establishments were authorised on the 14th August 1923.

They now stand as follows:—

	British officers.	Indian officers.	Indian other ranks.	Total Indian ranks.
Infantry	Active	20	742	762
	Gurkhas	20	921	941
	Training (average).	14	636	650
Pioneers	Active	16	720	* 736
	Independent	18	923	941
	Training (average).	11	469	480

In the final organization a "Headquarter Wing" has been substituted for the "Headquarters Company."

Excluding training battalions for the moment, the organization of an Infantry or Pioneer battalion is built up on the basis of a section, the smallest unit of men, which is commanded by a naick or lance naick, the junior non-commissioned officers in the battalion. A section consists of from 8 to 11 men.

A platoon comprises 4 sections. In the Infantry 3 of these are rifle sections and 1 a Lewis gun section. In the Pioneers all four are rifle sections. The platoon is commanded by an Indian officer (Jemadar or Subadar) assisted by a second-in-command, a Havildar. These with

the bugler, who acts as orderly to the platoon commander, constitute "Platoon Headquarters." The platoon therefore consists of a headquarters and 4 sections.

The company comprises 4 platoons. It is commanded by a British officer, designated the company commander, assisted by a British officer, as a company officer, and various Indian ranks and followers, who though not included in platoons, are required for the proper administration of the company as a whole. These British officers and Indian ranks and followers comprise what is known as "Company Headquarters." Thus a company consists of a headquarters and 4 platoons.

The headquarter wing comprises all the fighting personnel not distributed through companies or included in battalion headquarters (see below) and includes also certain combatant and other personnel who act on behalf of the battalion as a whole.

It is divided into 4 groups—

- | | |
|-----------------------|--|
| No. 1 group | Signallers and the band. |
| No. 2 group | Machine gun personnel in Infantry and Lewis gun personnel in Pioneers. |
| No. 3 group | Provost, mess and sanitary and artificers personnel. |
| No. 4 group | Transport personnel, tradesmen, etc., and followers. |

The headquarter wing is commanded by the second-in-command of the battalion, assisted by a certain staff to administer the personnel of the wing. The headquarter wing therefore consists of a headquarters and 4 groups.

Battalion Headquarters. Battalion headquarters is the staff of the battalion and includes—

Commanding officer.
Adjutant.
Quartermaster.
Subadar Major.
Jemadar Adjutant.
Jemadar Quartermaster.
Orderlies of the above.
Battalion Havildar Major.

Battalion Quartermaster Havildar.

Battalion clerical establishment.

Thus a battalion consists of—

Battalion headquarters.

Headquarter wing and

3 or 4 companies (each consisting of 1 headquarters and 4 platoons, or 16 sections).

A training battalion is organized on the same principles. But as the bulk of the personnel are recruits under training the section

Organization of a Training Battalion in detail, organization can be dispensed with, and, as there are no signallers or machine gunners in the training battalion, there is less necessity for the formation of a headquarter wing.

The object of the training battalion is the training of recruits, and the platoon is therefore composed of instructors, recruits, and trained sepoys who carry out regimental duties. The platoon is commanded by the senior havildar instructor. Financial reasons preclude the presence of an Indian officer to command each platoon.

Platoon. The training company consists of 4 platoons and, as in the case of active battalions, it includes a headquarters.

Battalion headquarters corresponds to that of an active battalion, but also includes the personnel of Nos. 3 and 4 groups of the headquarter wing of an active **Battalion Headquarters.** battalion.

Thus a training battalion consists of—

Battalion headquarters and as many training companies as there are active battalions in the regiment, each consisting of a headquarters and 4 platoons.

The war establishment of a battalion shows the strength at which the battalion mobilizes and proceeds on field service. The peace establishment of a battalion is based on its war establishment and is drawn up, for the sake of simplicity, as nearly as possible in conformity with it.

Peace and War Establishments. The ruling factors in deciding the peace establishment of a unit are the following:—

- (a) The number of men who, it is necessary to assume, will be medically unfit to proceed on service with the unit, at the time when it is mobilized.

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- (b) The number of men who will be required to remain behind with the training company or dépôt to administer the affairs of, and train reinforcements for, the mobilized unit.
- (c) Wastage in the field and the means available to maintain the unit at full war establishment; and
- (d) The limit of cost which has to be observed.

To provide a peace establishment which would meet all the requirements indicated by the first three factors would mean extravagance, and it is, therefore, necessary to devise some method whereby, on mobilization, the peace establishment may be supplemented by additional personnel. This object is attained by the formation of what is called a reserve.

In 1914, the normal peace establishment of units exceeded the war establishment by a considerable margin, and it was possible to mobilize a unit from its peace establishment without drawing upon the reserve. The ruling factors (a) and (b) were thus covered, and it was only necessary to draw upon the reserve to maintain the unit in the field for 8 months, i.e., the period required to complete the training of recruits enrolled at the outbreak of war.

In 1914 the terms and conditions of service of the Infantry reservists were briefly as follows:—

- (a) There was only 1 class in the reserve.
- (b) Service in the reserve was voluntary, and any man of good character, with not less than 3 years' colour service and not over 32 years of age, was eligible for transfer to the reserve.
- (c) Training of reservists was carried out biennially for two months, and during that time reservists were paid on the scale of a soldier serving with the colours.
- (d) The pay of a reservist, when not called up for training, was Rs. 2 per mensem.
- (e) Reservists were entitled to a retiring pension after 25 years' combined army and reserve service, or to gratuities on discharge for inefficiency or on being invalided, varying between 3 and 12 months' pay and good conduct pay according to service.

The authorized establishment of the reserve was 31,923.

Owing to the reduction effected as a result of the recommendations of the Retrenchment Committee, 1922-23, the peace establishments of Indian Infantry and Pioneer battalions (excluding Gurkha battalions and the Independent Pioneer battalion, which were excepted) are now, in the case of the Infantry 5 less and, in the case of the pioneers, only 11 more than their corresponding war establishment. Reserves for these units have therefore to be sufficient to provide for an actual shortage on mobilization as well as for the maintenance of the mobilized unit at full strength for the first 8 months after mobilization. It is essential, therefore, that the reserve now formed must always be up to establishment—thus necessitating that reserve service should be compulsory—and must also be highly efficient. This has resulted on the one hand, in stricter conditions of service, and on the other, in improved conditions of pay, pension and gratuities.

The conditions of the new reserve, which were introduced in August 1923, are as follows:—

- (a) There are two classes in the reserve, Class A and Class B. A reservist is eligible to serve in Class A up to 8 years combined army and reserve service, and in Class B up to 15 years combined service.
- (b) Service in the reserve is compulsory. On enrolment a man engages to serve at least 5 years in army service, and to serve up to 15 years in combined army and reserve service, if required to do so.
- (c) Reservists will be trained for not more than 1 month, annually in the case of Class A, and biennially in the case of Class B. During training the reservist will receive the full pay of a serving soldier.
- (d) While not under training the reservist will receive pay as follows:—
Class A, Rs. 7 per mensem.
Class B, Rs. 4 per mensem..
- (e) A reservist will be discharged from the service after 15 years combined army and reserve service, when he will receive a pension of Rs. 3 per mensem, or, if he desires it, a gratuity of Rs. 300 in lieu. A reservist who is invalided from the reserve is granted a gratuity varying between 3 and 6 months' pay and good conduct pay according to service.

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The establishment of the infantry reservists (including Gurkha battalions and the Independent Pioneer Battalion, 1/4th Hazara Pioneers) is fixed at present as follows:—

Infantry	26,448
Gurkhas	2,000
Pioneers	1,395
Independent Pioneers	81
	29,924

Thus, although the establishment of the new reserve is some 2,000 less than that of 1914, it is hoped that, by ensuring its maintenance at approximately full strength, and by the better conditions of service, it will prove to be a more efficient weapon than the old reserve in fulfilling the purpose for which it is designed.

The class composition of battalions included within regiments is as far as can be arranged homogeneous. Class composition of units is given in the Indian Army List.

Chapter XI—The Signal Service

THE Signal Service of an army is constituted for the purpose of giving commanders in the field the means of communicating with each other. It consists of signal units allotted to military formations: and the equipment of each unit depends on the type of formation it has to serve.

In a modern army many different means of communication are employed, and the use of one or the other is determined, amongst other things, by the degree of proximity to the enemy. "Signals" in the technical military sense include the human messenger, carrier-pigeons and dogs, the telephone, the "fullerphone" or buzzing instruments with a light cable, wireless telegraphy, telegraphs worked by hand, that is to say, the transmission of messages in the Morse code by means of flags or by the heliograph, which is a mirror reflecting the sun's rays, and, lastly, high speed automatic telegraphy. It will be readily understood that in modern times the invention of aeroplanes has helped to stimulate the development of signalling science on the military side, since, in order to secure effective co-operation between the Royal Air Force and the army, it is essential that there should be some reliable means of transmitting messages between aeroplanes in the air and the troops on the ground. It will also be readily understood that the Signal Service is one which, from its peculiar character, cannot be improvised in war, but must be maintained in a high state of efficiency in peace time.

The experience of the Great War demonstrated nothing more conspicuously than the paramount importance of rapid and reliable means of inter-communication, and this has been recognized in the British Army by the formation of the Royal Corps of Signals, on which the Indian Signal Corps is now modelled.

In 1914 the present Indian Signal Corps did not exist as such. It was represented in those days by 4 divisional signal companies, and 1 wireless section. These were affiliated to the sapper and miner organization, but formed a separate part of it; that is to say, they were treated as Sapper and Miner units, but they

The Indian organization in 1914.

were independent of the Sapper and Miner Corps as regards their administration. The British officers of the signal units were provided partly from the Royal Engineers, and partly from the Indian Army. British other ranks were found from the Royal Engineers and other arms of the service. The Indian ranks were sappers, but were not interchangeable with other sappers and miners.

This organization provided 1 divisional signal company for each of 4 of the 9 divisions of the field army. In order to complete the divisional organization, an increase was obviously necessary, and, in 1913, was in contemplation: but up to the outbreak of the Great War, no additional signal unit had been formed, and no depôt organization existed for training recruits for expansion.

On the outbreak of war, it became necessary to raise immediately one Army Corps Signal Company, one Signal Squadron, one Divisional Signal Company, and to prepare 30 per cent. reinforcements. For the

Expansion during the war.

latter purpose a signal service depôt was formed at Kirkee in October 1914. As the overseas forces increased, further expansion took place, partly by the formation of additional units in India, and partly by improvisation in the overseas theatres.

Great difficulty was experienced in obtaining suitable personnel and, to meet the increased demands, a further reorganization of the signal service depôt took place in November 1916. Eventually the depôt was moved to Wellington and, in addition, a drivers' depôt was formed at Kirkee. This was the position at the close of the war.

Differences in establishments between British and Indian units, constant changes necessitated by experience gained, including the adoption, in many cases, of new establishments all tended to increase the difficulties involved in meeting the war requirements of the various forces. Fortunately, the potential reserve existing in the form of the government telegraph departments of Great Britain, the Dominions and India, and the invaluable assistance rendered by those departments, made it possible for the signal service to carry out its task with a great measure of success.

For the reasons which have been indicated, improvement and reform of the signal service was one of the essential requirements of the post-war scheme of army reorganization: and accordingly the Indian Signal Corps was created, with an establishment

The Post-war Indian organization. The Indian Signal Corps.

of some 2,000 British and 3,500 Indian ranks, as compared with a few British non-commissioned officers and some 350 Indian ranks, which constituted the signal service of the Army in India before the war. The Corps is organised on the same lines as a Sapper and Miner Corps, with a headquarters and depôt for recruiting and training personnel, and detached field units for the various army formations. The head of the corps is the Signal Officer-in-Chief, who is attached to the General Staff Branch at Army Headquarters as a technical adviser on questions connected with signals, and is also responsible for the technical inspection of all signal units. A chief signal officer with similar functions is attached to the headquarters of each Army Command.

The headquarters and depôt, termed the Signal Training Centre and Depôt, are located at Jubbulpore, and are commanded by a Lieutenant-Colonel, assisted by a staff, British and Indian, organized on very much the same lines as the headquarters of a Corps of Sappers and Miners.

The various types of field units, and the number maintained, are:—

Cavalry Brigade Signal Troops	4
Divisional Signals	7
Corps Signals	2
Signal Parks	2

In addition, there are an Army Signal School and a Wireless Training Section, which carry out the training of regimental signalling instructors, and of personnel for wireless units, respectively.

The larger units, such as Divisional Signals and Corps Signals, consist of several sub-units, i.e., companies or sections, according to the particular duties for which the various portions of the unit are required. The larger units are usually commanded by a major, assisted by Viceroy's commissioned officers, and the companies and sections are commanded by captains and subalterns, respectively.

The Indian Signal Corps has only recently been created in its present form and is still in its infancy. There are many difficulties to be overcome before the degree of efficiency which is necessary can be achieved. Certain details of organization and establishments have yet to be settled: progress is necessarily retarded because many of the personnel lack experience: and even without

these handicaps it would not be an easy matter to keep pace with the rapid developments in technical appliances and in wireless equipment especially. Moreover, there is still a danger that new invention will quickly render obsolete even a recent pattern of signal equipment: and for this reason a cautious and deliberate rate of progress is, in the case of the signal service, definitely advisable. At the same time, the newly created organization has already been tested by service in Waziristan, and has shown that it contains the germ of success.

Chapter XII—Royal Tank Corps

THE Machine Gun Corps, as a separately constituted formation, was a war organization which has since ceased to exist; and Machine Gun companies and squadrons have once more been merged in cavalry and infantry units as part of their establishments. In addition to squadrons and companies the Machine Gun Corps comprised certain mobile machine gun units quipped with mechanical transport, such as Motor Machine Gun and Armoured Motor batteries. During the war there were in all 6 Armoured Motor batteries and 5 Motor machine gun batteries in the Indian establishment. These units possessed a high degree of mobility and great fire power, while the Armoured Motor batteries were also practically immune to any form of attack other than artillery fire. Units of this nature are invaluable under Indian conditions for the interception of raiders, the protection of convoys and frontier duties generally, and for use in aid of the civil power, in the case of outbreaks such as that in Malabar, where large extents of road or railway have to be patrolled and protected. For work of this character armoured cars are more efficient and much more economical than cavalry.

The Machine Gun Corps was abolished in 1921. But prior to its abolition certain units of the Tank Corps had arrived in India to take the place of the Armoured Motor batteries and Motor Machine Gun batteries above mentioned. These Tank Corps units consisted of 6 Armoured Car companies. These have been permanently retained in the post-war Army and, as will shortly be seen, their number is to be increased.

The Tank Corps comprises two distinct categories of fighting machine. Firstly there is the fighting tank itself. This is a heavy armoured vehicle mounted on flexible tracks and equipped with semi-automatic quick firing guns and Vickers machine guns, which is primarily intended for work in co-operation with cavalry

The Tank Corps, Tank and Armoured Car companies.

or infantry against strongly entrenched and wired enemy positions. The tank is independent of roads and can move across all ordinary country. So far tanks have not been actually adopted as part of the Army in India's equipment. Experiments have been made to find a tank which will be reliable under Indian conditions of temperature and terrain. But it is held that the conditions of warfare on the frontier do not at present render the provision of fighting tanks a first essential, though, when reliable tanks can be produced, they will undoubtedly be of great potential value.

Secondly, there is the armoured motor car. Though the movements of the armoured car are restricted to roads, or to comparatively level and open country, yet as we have already indicated this type of vehicle is invaluable under Indian conditions: and its introduction is a real economy, in that its use renders it possible to reduce more expensive cavalry establishments.

As previously stated 6 Armoured Car companies arrived in India in 1921. Two more companies are due to arrive in 1924-25, as partial compensation for the British cavalry regiments which are to be reduced in conformity with a recommendation of the Indian Retrenchment Committee. Eight Armoured Car companies is the total establishment at present in view. To complete the organization a Tank Corps Centre is maintained at Ahmednagar for the training of Tank Corps personnel, and for the administration of the Corps.

As in other cases, the establishment of an Armoured Car company is built up from its smallest unit. It is tactically unsound to use a single armoured car acting independently; cars should invariably work in pairs to give mutual support. Hence the smallest tactical unit is the sub-section of two cars. Two sub-sections constitute a section. The section is commanded by a captain or a subaltern, and is self-contained and capable of independent action. Three sections constitute a company. The company is commanded by a major. In addition to the 12 active cars in the 3 sections, 4 cars are held in company reserve to replace active cars temporarily out of action. Each car is armed with a Vickers machine gun.

ROYAL TANK CORPS

The establishment of a Tank Corps Company and of the Tank Corps Centre are shown below:—

—	British Officers.	British other ranks.	Followers.	Motor Cars.	Motor Cycles.	Armoured Cars.	Lorries.
Tank Corps Centre.	9	45	15	1	4	9	12
Armoured Car Company.	12	144	37	2	6*	16	10

* Two companies have eight cycles.

Chapter XIII—Medical Services

THE military medical services in India are composed of the following categories of personnel and subordinate organizations:—

- (i) Officers and other ranks of the Royal Army Medical Corps serving in India.
- (ii) Officers of the Indian Medical Service in military employment.
- (iii) The Indian Medical Department, consisting of two branches, viz., (a) Assistant surgeons and (b) Sub-assistant surgeons.
- (iv) The Queen Alexandra's Military Nursing Service for India.
- (v) The Indian Troops Nursing Service.
- (vi) The Indian Hospital Corps.

Of these categories, the officers and men of the Royal Army Medical Corps, the assistant surgeons of the Indian Medical Department, and the Queen Alexandra's Military Nursing Service for India are primarily concerned with the medical care of British troops: while the officers of the Indian Medical Service, the sub-assistant surgeons of the Indian Medical Department, and the Indian Troops Nursing Service are concerned primarily with the medical care of Indian troops. The Indian Hospital Corps serves both organizations.

In the staff and administrative appointments of the medical services, officers of both the Royal Army Medical Corps and the Indian Medical Service are employed without distinction of duties; and while, in the case of executive duties, the normal peace time arrangement is to provide separately for the needs of British and Indian troops respectively, in the manner which has been indicated, in time of emergency the Royal Army Medical Corps officer attends to Indian troops, and the Indian Medical Service officer to British troops, as the occasion demands. In particular, the field medical units are of a composite character, and are organized in such a way as to provide for the medical and surgical relief of both British and Indian sick and wounded.

An essential duty of the medical services is to attend the sick and wounded of the army in hospital; but, under present day principles of military medical administration, at least equal importance is attached to the prevention of disease and to promoting hygiene in the life of the army. The object aimed at is to maintain in the soldier a high standard of physical health and fitness, and to increase his powers of resisting disease. For this reason, the medical services are required to concern themselves with every department of the soldier's life, with the climatic and hygienic conditions of the cantonments in which the troops are stationed, with the hygienic suitability of the barracks in which the soldier lives, with the clothes that he is required to wear, the equipment that he is required to carry, the quality and composition of the ration which he is given to eat, and with the character and degree also of the physical training which he is required to undergo. It is for this reason also that in modern times a larger number of specialists are employed in the military medical services for the purpose of research connected with the special conditions of army life. A medical officer in the army is expected to see more of the troops in their barracks, in their lines, and during manœuvres, than in the hospitals; and the successful medical administrator in peace time is he whose hospitals contain the smallest number of sick.

The officers and other ranks of the Royal Army Medical Corps serving in India are drawn from a powerful and highly efficient corps forming part of the British Army. They are deputed to India for a tour of duty, and are entrusted with the medical and sanitary care of the British troops serving in India. The responsibilities of the officers have already been outlined. They are employed as executive medical officers of British station hospitals, in staff appointments, and on specialist duties. The other ranks of the Royal Army Medical Corps are employed as nursing orderlies in British station hospitals. Before the war, their duties were carried out by untrained personnel drawn from combatant units, a system which, as we have seen, affects adversely the general efficiency of the army.

The Indian Medical Service is primarily a military service. But after the officers have learnt their first military duties, those that are in excess of the peace requirements of the Indian Army are lent to the civil Government for employment in civil depart-

Officers of the Indian Medical Service in military employment.

ments until such time as they are needed on the outbreak of war: and these constitute the war reserve. Those who remain in military employment, are, like officers of the Royal Army Medical Corps, employed on executive, staff and specialist duties, their executive duties being, however, normally performed with Indian troops.

The Indian Medical Service is a service in which Indianization of the personnel has proceeded with relatively greater rapidity than has so far been attained in almost any other Indian service of the same status. The total strength of the Indian Medical Service officers in both civil and military employment is 681. Of these, 150 are Indian officers, of whom 102 have been recruited since 1915. The Indian officer in the Indian Medical Service, like his British confrère, holds the King's commission, and is required to possess the same registrable qualifications.

The assistant surgeons of the Indian Medical Department are Europeans and Anglo-Indians who possess certain medical qualifications, which are not, however, registrable in the United Kingdom. They are principally employed to hold subordinate medical charges in British station hospitals in connection with the care of British troops. The senior assistant surgeons hold the ranks of lieutenant, captain and major.

The sub-assistant surgeons of the Indian Medical Department are all Indians. They also possess certain special qualifications which are not registrable in the United Kingdom, and they are employed to hold subordinate medical charges in the station hospitals allotted to Indian troops. Those in the senior grades hold rank as Indian officers, that is to say, as subadar-major, subadar, and jemadar.

The Queen Alexandra's Military Nursing Service for India consists of a Chief Lady Superintendent, a number of Lady Superintendents, and nursing sisters to the number required by the strength of British troops in India. The Chief Lady Superintendent is an administrative official; the others nurse sick and wounded British soldiers themselves, and they also instruct in nursing duties the male nursing orderlies and supervise their work. The Nursing Service also supervise the matrons employed in the

family hospitals, which exist for the care of the families of British officers and soldiers.

A proposal is under consideration to abolish the separate Queen Alexandra's Military Nursing Service for India, and to provide for the duties which the service now performs by employing nursing sisters of the Imperial Military Nursing Service. These, if the proposal is carried out, would come out to India for a tour of duty with British troops, in exactly the same way as officers and other ranks of the Royal Army Medical Corps.

The Indian Troops Nursing Service is an innovation introduced since the war. It has not yet been permanently established, and the numbers employed are relatively few. The duties of the service are mainly to instruct nursing orderlies of the Indian Hospital Corps, and to supervise their work in Indian station hospitals.

The Indian Hospital Corps has absorbed the Army Hospital Corps and the Army Bearer Corps of the pre-war period. Its creation was the consequence, amongst other things, of the introduction of the station hospital system for Indian troops, a measure which will be later described; and, as previously stated, the Indian Hospital Corps now serves both British and Indian sick and wounded. It is organized in five sections, namely, (a) a clerical section, which carries out clerical and office duties, connected with the administration of hospitals and medical administration generally; (b) a storekeeper's section, which is employed on the holding, issue and general care of hospital stores, such as bedding, furniture, etc.; (c) a nursing section, which provides the nursing orderlies for Indian station hospitals; (d) an ambulance section, which performs the duties previously carried out by the Army Bearer Corps; and (e) a general section, which provides certain menial and domestic servants for both British and Indian station hospitals.

The medical services are administered and controlled by the Director of Medical Services in India, an officer of the rank of Major-General on the staff of Army Headquarters, subordinate to the Adjutant-General in India. Under a principle recently introduced, the appointment of Director of Medical Services is to be held alternately by an officer of the Royal Army Medical Corps and an officer of the Indian Medical Service. The Director of

Medical Services is assisted by a Deputy Director, who is also Director of Hospital Organisation, a Director of Medical Organisation for War, a Director of Hygiene and Pathology, an Assistant Director, who deals with personnel, another Assistant Director who deals with accommodation and equipment; a Deputy Assistant Director and the Chief Lady Superintendent. For administrative medical duties, each of the Army Commands has a Deputy Director of Medical Services, of whom two belong to the Royal Army Medical Corps and two to the Indian Medical Service. Administrative and supervisory duties in Districts and Brigades are entrusted to Assistant Directors and Deputy Assistant Directors of Medical Services according to the peculiar necessities of each.

Each military station in which British troops are cantoned is provided with a station hospital for British sick and wounded.

Executive arrangements in peace. The system now obtaining (1923) is the same in all essential features as that which was established before the war; but in the past seven years the British station hospitals, and also the family hospitals for British troops, have been considerably improved as regards the general standard of comfort, the efficiency of nursing, and the scale and type of equipment. The British station hospital is, of course, a dieted institution and is otherwise self-contained.

A typical establishment of a large British station hospital consists of a commanding officer, who is a Lieutenant-Colonel of the Royal Army Medical Corps, four or five medical officers who are Majors or Captains of the Royal Army Medical Corps, three or four assistant surgeons of the Indian Medical Department, a lady superintendent, and a quota of nursing sisters, nursing orderlies of the Royal Army Medical Corps, and other subordinate and menial establishments drawn from the Indian Hospital Corps.

So far as the Indian soldier is concerned, the Indian station hospital is a new amenity of life in the army, introduced during the Great War of 1914-18. Before the war

Indian Station Hospitals. the Indian soldier was treated in his regimental hospital, which was not a dieted institution and, practically, in no sense self-contained. The equipment of a regimental hospital consisted, at the best, of beds, mattresses, and pillows, a small stock of blankets, a pair of medical panniers, and a somewhat scanty supply of medical and surgical necessities. Hospital clothing was not provided. There were no properly equipped stores or administrative

The Army in India and its Evolution

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