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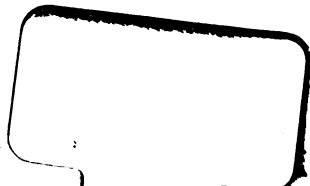
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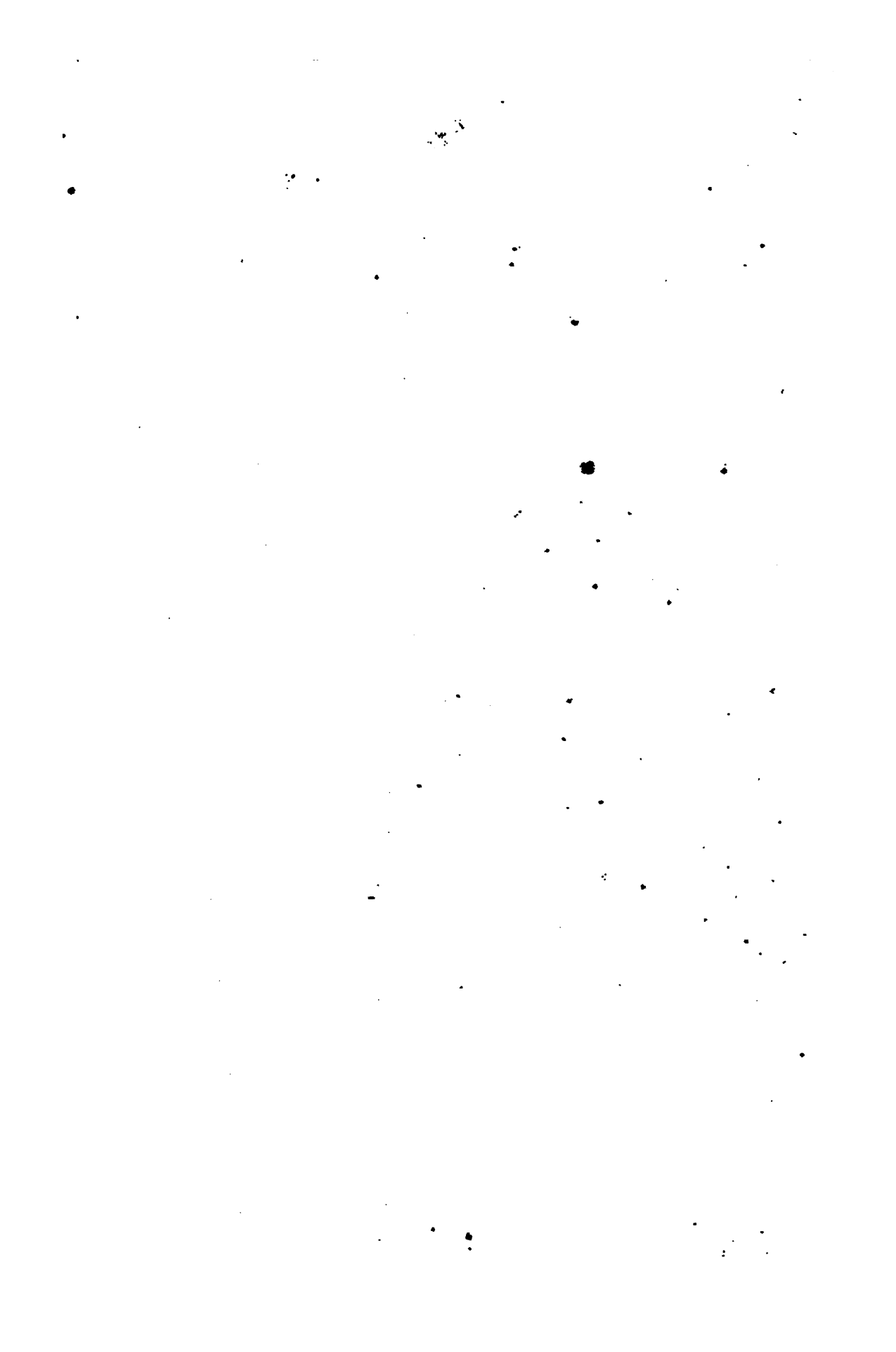
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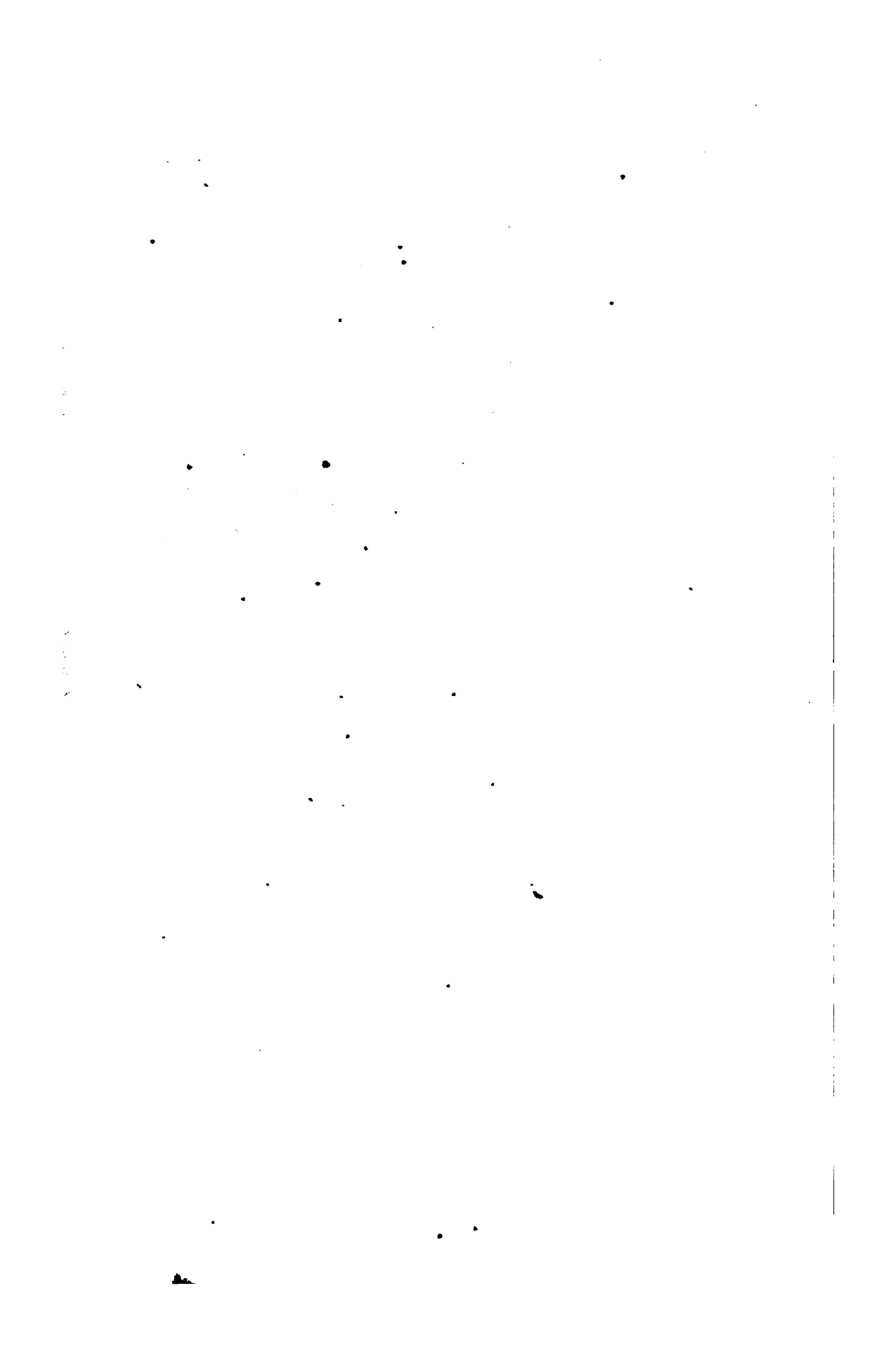




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THE
ARMED STRENGTH
OF SPAIN.

COMPILED IN THE INTELLIGENCE BRANCH OF
THE QUARTER-MASTER-GENERAL'S DEPARTMENT, WAR OFFICE.

(WITH A MAP.)



LONDON :

Printed under the Superintendence of Her Majesty's Stationery Office,

AND SOLD BY

W. CLOWES & SONS, Limited, 13, Charing Cross ; HARRISON & SONS, 59, Pall Mall ;
W. H. ALLEN & Co., 13, Waterloo Place ; W. MITCHELL, 39, Charing Cross ;
LONGMANS & Co., Paternoster Row ; TRUBNER & Co., 57 and 59, Ludgate Hill ;
STANFORD, Charing Cross ; and KEGAN PAUL, TRENCH & Co., 1, Paternoster Sq., E.C. ;

Also by GRIFFIN & Co., The Hard, Portsea : A. & C. BLACK, Edinburgh ;
ALEX. THOM & Co., Abbey Street, and E. PONSORBY, Grafton Street, Dublin.

1883.

Price Three Shillings.

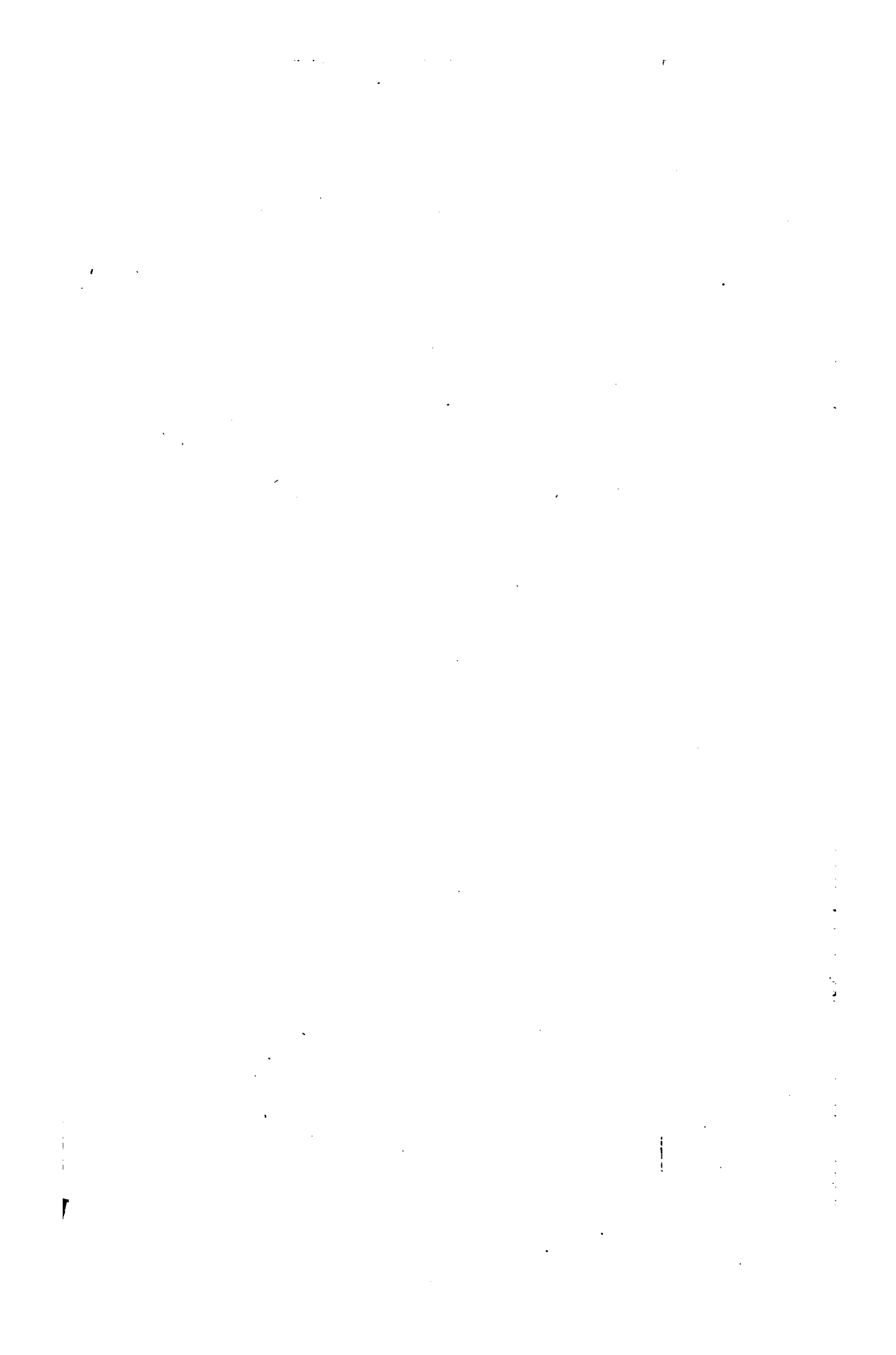
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THE ARMED STRENGTH OF SPAIN.

CHAPTER I.

THE SPANISH KINGDOM, AND ITS MILITARY RESOURCES.

THE Spanish Kingdom consists of the greater part of the Iberian Peninsula, with its dependencies (the Balearic and Canary Isles, and certain minor posts in Northern Africa), and of the colonial possessions of Cuba and Puerto Rico in America, the Philippine Islands in Asia, and Fernando Po, Corisco, and Annobon off the West Coast of Africa.

The area and population of these possessions are shown in the following Table :—

Territory.	Area in English square miles.	Population.
Spain proper	177,335	16,053,961
Balearic Isles	1,860	289,035
Canary Isles	7,689	280,388
Posts in Northern Africa	15	2,476
Total, Spain and Dependencies	186,899	16,625,860
Cuba	45,881	1,466,843
Puerto Rico	3,641	666,144
Philippine Islands	53,299	6,193,232
Fernando Po, Corisco, and Annobon	1,435	36,000
Total, Colonial Possessions ..	104,256	8,362,219
Grand Total ..	291,155	24,988,079

Spain proper is divided into 47 provinces, grouped into 12 military Districts, each under a Captain-General (see Appendix A, Table I). The provinces of the Balearic and Canary Isles form two additional Districts, and the six provinces of Cuba and one of Puerto Rico make up the 56 provinces which are represented in the Cortes.

Ceuta, on the African coast, belongs to the province of Cadiz, and though practically an independent command, is under the Captain-General of Andalusia; the other posts, Melilla, the Chafarinas Islands, Peñon de Alhucemas, and Peñon de la Gomera, belong to Granada.

In Spain proper, nearly 46 per cent. of the whole area is uncultivated, and the average density of the population is only 90 inhabitants per square mile,* or considerably less than half that of Italy.

On the 1st July, 1881, the public debt stood at £500,949,714.

The revenue and expenditure of the kingdom, and the expenditure on the army and navy in recent years, are given in the following Table:—

Years.	Total Revenue.	Total Expenditure.	Army Expenditure.	Navy Expenditure.
	£	£	£	£
1877-78† ...	29,440,000	29,430,000	4,891,000	1,039,000
1878-79 ..	30,025,208	30,127,114	5,126,126	1,005,031
1879-80‡ ..	31,139,135	32,263,638	4,908,729	1,005,031
1880-81§ ..	31,666,031	33,466,047	4,807,641	1,285,833
1881-82 ..	31,319,809	31,305,968	5,050,908	1,367,998
1882-83 ..	31,239,808	31,573,044	5,279,412	1,445,092

The following Table shows the most important items of the military expenditure for 1882-83:—

	Pesetas.	£
War Ministry and Directors-General ..	2,657,354	106,294
Pay of unemployed General Officers ..	2,255,950	90,238
Regimental pay and allowances ..	68,285,171	2,731,407
Recruiting	1,433,200	57,328
Staff of Military Districts	10,580,980	423,239
Subsistence of troops	15,969,618	638,784
Barracks, camps, hospitals, and transport	5,965,321	238,613
Military education	1,680,229	67,209
Artillery matériel	7,000,000	280,000
Engineering works: Forts and barracks	4,024,000	160,960
Government studs, and remounting ..	2,445,685	97,827
Extraordinary expenses	2,295,500	91,820
Half-pay and pensions	4,057,018	162,280
Corps of Invalids	958,427	38,337
Military buildings	347,665	13,904
Miscellaneous	550,000	22,000
Brought over from former budgets ..	1,154,149	46,165

* In England and Wales there are 440 inhabitants per square mile, and in Belgium 499 per square mile.

† The Spanish financial year begins on the 1st July.

‡ The actual deficit for 1879-80 is given as 91,000,000 pesetas, or £3,640,000.

§ The actual deficit for 1880-81 is given as 106,000,000 pesetas, or £4,240,000.

THE MILITARY FORCES OF SPAIN.

The Spanish Army is composed of two distinct portions, viz, the Home, or Peninsular Army, and the Colonial Army.
The Home Army consists of—

The Active Army, and
The Reserve.

The Active Army is composed of—

The Standing Army, and
The Depôt Troops.

The Standing Army consists of—

Infantry	..	..	140	Battalions.
Cavalry	..	..	24	Regiments.
Artillery (garrison)	..		6½	”
” (field)	..		60	Batteries (396 Guns).
Engineers	..	..	5	Regiments.
Special Corps.				

The Colonial Army is made up of three sections, viz. :—

The Army of Cuba.
The Army of Puerto Rico.
The Army of the Philippines.

These sections have the following composition :—

<i>Cuba.</i> —Infantry	..	24	Battalions.
Cavalry	..	2	Regiments.
”	..	8	Squadrons Mounted Rifles.
Artillery	..	1	Regiment (Garrison),
”	..	1	Mountain Battery (6 Guns).
Engineers	..	1	Regiment.
Special Corps.			

<i>Puerto Rico.</i> —Infantry	..	3	Battalions.
Artillery	..	1	” (Garrison).
Special Corps.			

<i>The Philippines.</i> —Infantry	..	7	Regiments (Native).
Cavalry	..	1	Squadron.
Artillery	..	1	Regiment.
Engineers	..	1	Battalion.
Special Corps.			

The total strength of the Standing Army maintained in time of peace is approximately as follows, exclusive of officers* :—

* For detailed statement, *vide* Appendix D.

THE ARMED STRENGTH OF SPAIN.

Home Army..	{	Infantry	61,360
		Cavalry	15,027
		Artillery	11,915
		Engineers	4,085
		Special Corps	28,108
		Total	120,495*
Colonial Army	{	Cuba	26,579
		Puerto Rico	3,318
		Philippines	10,035
		Total	39,932

THE NAVAL FORCES OF SPAIN.

Spain possesses a sea-going Fleet of—

- 5 Iron-clad Frigates,
- 16 Unarmoured Screw Frigates and Corvettes,
- 4 Unarmoured Paddle Steamers,

besides a number of transports and smaller vessels.

For Coast Defence there are also—

- 1 Iron-clad Monitor,
- 2 „ Floating Batteries,
- 74 Unarmoured Gun Vessels,
- 2 Torpedo Boats.

The strength of the personnel of the Spanish Navy is fixed at 4,700 Seamen and 3,900 Marines.

SPANISH FORTRESSES.

Spain possesses a very large number of small defensive works of antiquated type, but hardly any places which are fortified in accordance with the requirements of modern warfare. The following are the most important strongholds in the Peninsula:—

On the French Frontier ..	Figueras, Seo de Urgel, Penasque, Jaca, Pamplona, Gerona, Lérida, Zaragoza.
---------------------------	--

* In the peace strength of the Home Army voted by the Cortes (94,125), the Guardia Civil and Carabineros are not included.

On the Portuguese Frontier..			Ciudad Rodrigo, Badajoz.
On the Coast			Coruña, Ferrol, Cadiz, Tarifa, Cartagena, Barcelona.

There are also the following :—

In the Balearic Isles ..			Mahon.
In the Canary Isles .. .			Santa Cruz de Teneriffe, Palma.
In North Africa .. .			Ceuta, Melilla.
In Cuba .. .			Havana.

CHAPTER II.

THE CONSCRIPTION.

Recruiting for the Spanish Army is conducted under the provisions of a law, promulgated on the 14th February, 1882. By this law, the principle of universal obligation to serve is recognised, the total period of service for the Home Army being 12 years, viz., six years on the Active List, and six years in the Reserve.

The young men from each annual contingent who are required to join the ranks of the army, are selected by lot; the remainder being dismissed and classed as "Available Recruits."

Those on whom the lot falls are not obliged to serve in the ranks for the full time of six years, but in the course of their third year of service, when sufficiently instructed, are sent home on unlimited furlough, and classed as the "Active Reserve."

Men on the Active List, therefore, form three categories :—

- (a) Those in the ranks.
- (b) Those on unlimited furlough (the Active Reserve).
- (c) The Available Recruits.

In case of mobilization, the regiments of the standing army are brought up to war strength by recalling from furlough the men of the Active Reserve, and to replace casualties, the class of Available Recruits would then be called up; the contingents for one, two, or more years, being summoned by orders of the Government, the youngest class being always taken first.

On the completion of six years' service, the Spanish soldier passes into the Reserve, which consists of two classes:—

- (d) The Second or Sedentary Reserve.
- (e) The Supplementary Reserve.

Of these, the first consists of the men who served in the ranks of the Active Army, while the Supplementary Reserve is made up of those who passed through the Active List in the category of Available Recruits.

The Reserve can only be assembled with the sanction of the Cortes, and after all the contingents of the Active List have been called up.

A man while belonging to the Reserve must report himself once a year, and is liable to be called up for training for a period not exceeding six weeks in two years.

Conditions of Service in Colonial Army.

In the Colonial Army the period of service is four years on the Active List,* and four years in the Reserve; the men serving in the ranks the full period during which they belong to the Active List.

If, however, a soldier, on the completion of his four years' service, elects to serve on in the colony, either in the ranks or in the Active Reserve, for an additional period of two years, he is released from all further military obligation at the end of his six years' service.

The Annual Contingent.

The annual contingent is furnished by two classes—(a) those young men under 21 years of age, whose 20th birthday occurs between the 1st January and 31st December of the year in which the drawing takes place.

(b) Those between 21 and 35 years of age, who, from any cause, have neither taken part in the lot drawing, nor been legally exempted in some previous year. This includes married men and widowers with children.

Exemptions.

Men may be exempted from service in the ranks, and enrolled on the list of Available Recruits either for family reasons or by purchase. The following are exempted for family reasons:—

1. An only son, supporting a poor mother where she is an invalid, or over 60 years of age.
2. An only son, supporting a poor mother where she is a widow, or married to one who is also poor, an invalid, or over 60 years of age.
3. An only son, supporting a poor mother where her hus-

* Counting from date of embarkation.

band, likewise poor, is undergoing imprisonment which will not terminate within a year.

4. An only son, supporting a poor mother where the father has been absent for more than 10 years, and it is not known what has become of him.

5. A foundling, supporting the person who brought him up, where this person fulfils any of the above-mentioned conditions.

6. An only illegitimate son, supporting a poor mother by whom he was brought up, where she is unmarried or a widow; or if she be married, where the husband is likewise poor, an invalid, or over 60 years of age.

7. An only grandson, supporting a poor grandfather, or grandmother where the grandfather is an invalid or over 60 years of age, or the grandmother a widow; provided that the lad's parents are not living, and that he has been brought up by his grandparents.

8. An only grandson, supporting under similar circumstances, a poor grandmother where her husband is likewise poor, an invalid, or over 60 years of age.

9. The only brother of one or more orphans, where he has been their support for at least a year previous to the drawing; provided that the orphans are poor, and less than 17 years old. If, however, they are unfit for work, there is no restriction as to age.

10. A son of a father who (not being poor) has already one or more sons serving in the Active Army, by reason of having drawn certain numbers, and who, if his son were taken, would be left without any son over 17 years of age, and fit to work.

If the father should be poor, whether or not he be incapable of work or over 60 years of age, the above exemption holds good.

This rule applies equally to the case of a mother, whether she be married or a widow.

A young man is considered as an only son, though he has brothers, provided they are—

Under 17 years of age.

Incapable of work.

Soldiers serving in the Active Army.

Convicts undergoing a sentence of not less than six years.

Widowers with one or more children, or married men who are unable to support their father or mother.

Exemption by payment is secured by disbursing a sum of 1,500 pesetas (£60). As in the case of those exempted for family reasons, the man who thus avoids service in the ranks does not entirely escape military liability, but is enrolled on the list of Available Recruits.

Substitution.

For the Home Army, substitution is only allowed between

brothers, but for the Colonial Army it is permitted between men of the same battalion district, who have taken part in the same drawing.

The duties connected with recruiting are entirely in the hands of Infantry Officers. The recruits drawn from the various districts are assembled in each province, and are there selected for the several branches of the service by officers belonging to these arms. Any men who are artisans are first allotted: carpenters to the Engineers, blacksmiths to the Cavalry, &c.; and then those who have been connected with shipping are assigned to the Navy. From the remainder, men of 1·710 metres (5 ft. 8 in.) in height are selected by the Artillery and Engineers, in the proportion of two gunners for one engineer, until each of these corps has received one-fourth part of the number of its recruits. The selection of the remainder is made as follows: Artillery, two men; Engineers, one; Marines, one; Cavalry, two; the selection being repeated till the numbers are complete. The men not selected for these corps are passed into the Infantry.

Height of Recruits.

The minimum height for the Spanish Infantry recruits is fixed at 1·540 metres (5 ft. 0½ in.), those below this height being passed into the Reserve.

If, however, a young man is over 1·500 metres (4 ft. 10¾ in.), he has to present himself at the drawing the following year, when, should he have reached the required height, he may be ordered to join the Active Army.

For the Artillery the finest men are drafted into the Mountain Batteries, no man being taken for this service who is under 1·71 metres (5 ft. 8 in.). The minimum height for men for Field Batteries is 1·65 metres (5 ft. 5¾ in.), but this may be reduced in case there are not enough men of the required height. For Garrison Artillery and for the Guardia Civil the minimum height is 1·677 metres (5 ft. 6½ in.).

Results of the Conscription.

On the 5th February, 1880, 153,127 men were found to be liable to military service, and of these 65,000 were enrolled. These were allotted as follows:—

Infantry..	..	..	..	32,000
Cavalry..	..	..	..	5,000
Artillery	..	..	..	4,000
Engineers	..	..	..	2,000
Marines..	..	..	..	2,500
For Cuba	..	..	..	19,000
For the Philippines	..	..	..	500
				<hr/>
				65,000
				<hr/>

On the 1st January, 1882, the strength of the Infantry was as follows:—

Active Army.

(a) In the ranks or on short leave	57,824
(b) On unlimited furlough, after serving in the ranks (Active Reserve)	64,437
(c) Available recruits (undrilled)	162,129
	284,390

Reserve.

(d) 2nd Reserve (viz., those who have served in the ranks of the Active Army)	21,833
(e) Supplementary Reserve (viz., those who have only been included as available recruits in the Active Army)	14,613
(f) Men whose service has been postponed, men below the standard of height, &c. ..	107,172
	143,618

The total number of men, therefore, amounts to 428,008, of whom only those belonging to Classes (a), (b), and (d), 144,094 in all, have received any military instruction.

Re-engagement.

Men are allowed to re-engage, both for the Home and for the Colonial Army. The scale of bounties given to those who re-engage will be found on page 75.

CHAPTER III.

INFANTRY AND RIFLES.

There are 60 Regiments of Regular Infantry each of two battalions.*

The regiments are distinguished by the following titles in addition to their numbers:—

1st Regiment	Rey.
2nd " 	Reina.
3rd " 	Principe.
4th " 	Princesa.
5th " 	Infante.
6th " 	Saboya.

* Each Infantry regiment has its own Patron Saint.

On this scale the non-commissioned officers and men of a battalion would in time of peace amount to 800. The number, however, who are actually retained in the ranks is determined annually by a vote of the Cortes, and since the 1st July, 1879, this has been fixed at 404; all beyond this number being sent to their homes on furlough, without pay.

The cadres of the *depôt* companies move about with their respective battalions in time of peace, and in time of war these companies take charge of the regimental documents, &c. On mobilization they are raised to the same strength as service companies, and are detached as garrisons of places in the zone of operations, or stationed at posts within easy reach of it.

The nominal Peace and War establishment of an Infantry Regiment is shown in Appendix B, Table I. The establishment of an Infantry Battalion is identical with that given in the same table for a Rifle Battalion, omitting the band.

Colours.

Each battalion has a colour which is carried by the officer of the battalion staff specially detailed for this duty (*Alferez Abanderado*).

The colours are made of silk in three horizontal bands, the central band being yellow, and the two outside ones red. The arms of Spain are embroidered in the centre, together with the name of the regiment.

Each company has a bannerole of a distinctive colour, viz.: 1st company, Red; 2nd, Yellow; 3rd, White; 4th, Green. If there are more than four companies present they are distinguished as follows:—5th company, Violet; 6th, Light Blue; 7th, Red and White; 8th, Yellow and Green.

Servants.

Each officer is allowed one servant (*asistente*) from the men in the ranks.

Chargers.

In an Infantry Regiment the only officers mounted are the seven Field Officers, each of whom draws an allowance of 100 pesetas (£4) per annum towards purchasing a charger. Forage is supplied by the State.

The maximum amount of compensation allowed by the State for a charger killed in action is 500 pesetas (£20).

Baggage.

Baggage is of two classes, heavy and light, the unit for the former being 10 *arrobos*, or 115 kilogrammes (2 cwt. 1 qr.), and that of the latter 6½ *arrobos* or 76 kilogrammes (1 cwt. 2 qrs.)

A Battalion of Infantry is allowed 8 units of heavy baggage (18 cwt.).

Regimental Transport.

Each battalion has a two-wheeled Catalan cart drawn by one mule, for which forage is issued by Government. This cart is used in peace time for drawing rations for the men, and forage for officers' chargers, &c. During the Carlist War this cart remained with the depôt, each battalion in the field being furnished with eight pack mules for the conveyance of ammunition and officers' baggage. These mules were hired by the Government and had civilian drivers, sent by the owners.

RIFLE BATTALIONS.

The Rifles are the Corps d'Élite of the Spanish Infantry. The 20 battalions of which they consist are distinguished by the following titles :—

1st Rifle Battalion	..	Cataluña.
2nd " "	..	Madrid.
3rd " "	..	Barcelona.
4th " "	..	Barbastro.
5th " "	..	Tarifa.
6th " "	..	Figueras.
7th " "	..	Ciudad Rodrigo.
8th " "	..	Alba de Tormes.
9th " "	..	Arapiles.
10th " "	..	Las Navas.
11th " "	..	Llerena.
12th " "	..	Segorbe.
13th " "	..	Mérida.
14th " "	..	Estella.
15th " "	..	Alfonso XII.
16th " "	..	Reus.
17th " "	..	Cuba.
18th " "	..	Habana.
19th " "	..	Puerto Rico.
20th " "	..	Manila.

A battalion of Rifles consists of four service companies and a depôt company. The establishment of a battalion is given in Appendix B, Table I.

CHAPTER IV.

CAVALRY.*

The Spanish Cavalry consists of the Royal Escort Squadron, which is generally employed in attendance on the King, and of 24 Regiments of Lancers, Chasseurs, and Hussars, distinguished by the following titles :—

1st Regiment:	Lancers	..	Rey.
2nd	"	..	Reina.
3rd	"	..	Principe.
4th	"	..	Borbon.
5th	"	..	Farnesio.
6th	"	..	Villaviciosa.
7th	"	..	España.
8th	"	..	Sagunto.
9th	"	..	Santiago.
10th	"	..	Montesa.
11th	"	..	Numancia.
12th	"	..	Lusitania.
13th	Chasseurs	..	Almansa.
14th	"	..	Alcántara.
15th	"	..	Talavera.
16th	"	..	Albuera.
17th	"	..	Tetuan.
18th	"	..	Castillejos.
19th	Hussars	..	Princesa.
20th	"	..	Pavía.
21st	Chasseurs	..	Alfonso XII.
22nd	"	..	Sesma.
23rd	"	..	Villarrobledo.
24th	"	..	Arlabán.

There are also two independent squadrons of Chasseurs.

1st Squadron	..	..	..	Galicia.
2nd	"	..	..	Mallorca.

The Royal Escort Squadron is commanded by a Colonel, and has the establishment given in Table II, Appendix B.

A regiment of Cavalry of the Line is commanded by a Colonel, the rest of the regimental staff consisting of a Lieutenant-Colonel, three Majors, eight other combatant and seven non-combatant officers.

Each regiment consists of four squadrons, the establishment of a squadron being as follows :—

- 1 Captain.
- 3 Lieutenants.
- 2 Cornets.

* St. James is the Patron Saint of the Spanish cavalry.

1 Sergeant-Major.
 4 Sergeants.
 8 Corporals.
 8 2nd Corporals.
 4 Trumpeters.
 4 1st class } Troopers.
 96*2nd class }

Total 131 of all ranks
 with six officers' and 82 troop horses.

There is a Riding Establishment, for the instruction of recruits, at Alcalá de Henares, and connected with it a school for farriers. The former has 50 candidates for the position of Riding-master and 70 rough-riders attached to it, the number of recruits being about 700.

Remounts are supplied to regiments from four depôts which are established at Ubeda, at Córdoba, at Jerez de los Caballeros (in Estremadura), and at Moron (near Seville). Horses of all colours are taken for the cavalry, grey horses being extremely common, and they are not distributed according to colour. There are four Government studs in Spain, viz., at Jerez de la Frontera, at la Rambla, at Baeza and at Valladolid.†

The establishment of a Remount Depôt and of a stud is given in Appendix B, Table II.

From statistics which have been published for the years 1875 and 1876, it appears that the mortality caused by the operations against the Carlists was less among the horses obtained from Government studs than that among horses coming from other sources. Hungarian horses appear to have been nearly as hardy as those from the Spanish studs, the remaining horses used having the following relative positions: Spanish horses purchased; Spanish horses requisitioned; English horses; Algerian horses; French horses. It was therefore concluded that English, Algerian, and French horses are unsuited for military purposes in Spain.

Servants.

Officers are allowed servants from the men in the ranks.

Chargers.

Cavalry officers are allowed to select a charger from the ranks, on paying the contribution laid down for each rank. This contribution varies from 150 pesetas (£6) for a cornet, to 375 pesetas (£15) for a Colonel. The horse thus acquired, does not, however, become the absolute property of the officer till it has been six years in his possession.

Baggage.

The allowance of baggage for a Cavalry Regiment is two

* The 3rd and 4th squadrons have only 95.

† The number of horses in Spain in 1881 is given as 680,373.

units of heavy baggage (see page 16) for each squadron, and two for the Regimental Staff, making a total of rather more than a ton.

Regimental Transport.

Each Cavalry Regiment has a two-wheeled Catalan cart, drawn by one mule.

CHAPTER V.

ARTILLERY.*

The Spanish Artillery of the Home Army is made up of six regiments of Garrison Artillery (each of two battalions), and one independent battalion, with eight regiments of Field Artillery,† each of six batteries, and three Regiments of Mountain Artillery each of six batteries.

GARRISON ARTILLERY.

The staff of a regiment of Garrison Artillery consists of—

- 1 Colonel,
- 1 Bandmaster,
- 37 Musicians,

except in the 6th Regiment, which has no band.

The staff of each battalion is as follows :—

- 1 Lieutenant-Colonel
- 1 Major
- 1 Adjutant
- 2 Other officers
- 1 Bugler (corporal)
- 1 Armourer.

Each battalion has four companies. The following is the establishment of a company :—

	Peace.	War.
Captain	1	1
Subalterns	3	4
Sergeant-Major	1	1
Sergeants	3	5
Corporals	5	7
2nd Corporals	5	7
Trumpeters	2	3
Gunners { 1st class	6	12
{ 2nd class	83	215
Total	109	256

* Santa Barbara is the Patron Saint of the Spanish Artillery.

† In the financial year 1883-4 it is intended to raise another Regiment of Field Artillery.

There are as yet no depôt companies of Garrison Artillery, but it is intended to add one to each battalion.

The establishment of a regiment of Garrison Artillery is given in Appendix B, Table III.

The distribution of the regiments of Garrison Artillery is as follows :—

- 1st Regt., 1st Battn., Barcelona, Figueras, Seo de Urgel, Lérida, &c. 2nd Battn., the Balearic Isles.
- 2nd Regt., 1st and 2nd Battns., Cadiz, Ceuta, Algeciras, Tarifa.
- 3rd Regt., 1st and 2nd Battns., Madrid, Badajoz, Burgos, Vittoria, Ciudad Rodrigo.
- 4th Regt., 1st and 2nd Battns., Coruña, Ferrol, Vigo, Gijon, Santoña.
- 5th Regt. 1st and 2nd Battns., Pamplona, Bilbao, San Sebastian, Zaragoza, Jaca.
- 6th Regt., 1st and 2nd Battns., Cartagena, Melilla, &c., Málaga, Peñíscola, Alicante.
- Independent battalion, the Canary Isles.

Chargers.

Field Officers of Garrison Artillery are mounted, under the same conditions as Field Officers of Infantry (see p. 16).

FIELD ARTILLERY.

Each of the eight regiments of Field Artillery has six batteries of six guns each, except the 6th Battery of every regiment, which is a depôt battery and has only a cadre establishment in peace time.

The 6th, 7th, and 8th Regiments of Field Artillery are armed with guns of position (9 cm. and in a few cases 10 cm. guns), the remainder with 8 cm. guns. Only four guns and four wagons per battery are furnished with transport animals in time of peace.

The establishments of the staff of a regiment and of the different classes of batteries are given in Appendix B, Table III.

The men of a battery are trained to perform the duties of gunners and drivers.

A battery forms three sections, each under a subaltern officer, and each section consists of two sub-divisions.

All guns and carriages of the Spanish Artillery are drawn by mules,* pole draught being universal for artillery vehicles. The point of the pole is suspended by a strap from a bar (called the "violin"), which passes through rings on the pommels of the wheelers' saddles.

The pattern of harness now in use was adopted in 1879, and is much lighter than that which it replaced. Collars are used, with rope traces covered with leather, 5 ft. 11 in. in length.

* The number of mules in Spain in 1881 is given as 1,021,512.

The gun-carriages, limbers and ammunition wagons of the latest pattern are of iron, and are described in Chapter XII, p. 59, &c. The gun-carriages have axletree seats, and two gunners are thus carried, two more sitting on the limber, and the rest of the detachment on the ammunition wagon. All the seats are furnished with leather cushions which are stuffed with forage.

The following table shows the number of vehicles in a battery :—

	Peace.	War.
Guns	4	6
Ammunition wagons	4	6
Section wagons	1	3
Forge wagon	—	1

The mules required being as follows :—

	Field Battery.		Position Battery.	
	Peace.	War.	Peace.	War.
Gun teams	16	36	24	48
Ammunition wagon teams	16	36	24	48
Section wagon teams	4	12	4	12
Forge wagon teams	—	4	—	4
Spare	6	22	8	28
	42	110	60	140

The section wagons carry spare stores, the books of the battery, the officers' effects, shoeing materials, surgical appliances, &c.

Chargers.

The officers of Field and Position Batteries are mounted, as well as the following non-commissioned officers and men :—

	Peace.	War.
Sergeant-Major	1	1
Sergeants	3	4
Corporals	8	11
Trumpeters	2	3
	14	19

The stores necessary to raise batteries of artillery from a peace to a war footing are kept in the various artillery parks.*

* See p. 112.

On mobilization the regiments of Field Artillery would draw their stores from the parks as shown below :—

1st Regiment from	..	Madrid.
2nd " "	..	The Arsenal, Seville.
3rd " "	..	Zaragoza.
4th " "	..	Madrid.
5th { 4 Batteries	..	Valencia.
{ 1 Battery	..	Barcelona.
6th " "	..	Burgos.
7th " "	..	Madrid.
8th " "	..	Madrid.

MOUNTAIN ARTILLERY.

The three regiments of Mountain Artillery have each six batteries of four guns each in peace and six in war, the 6th Battery in each regiment, as in the Field Artillery, being a dépôt battery with only a cadre establishment in peace.

In Mountain Batteries the guns, carriages, and ammunition boxes, are carried on pack-saddles, which are all of the same pattern. The Spanish Artillery pack-saddle is made of wood and iron, and is stuffed with straw, with a thick layer of carded wool next to the animal's back. The weight of the saddle is from 46 to 48 kilogrammes (102 to 106 lbs.) It is fitted with iron horns, on which the wheels of the gun-carriage can be carried,* but when near the enemy the wheels are generally left on the axle-tree, which is carried across the pack-saddle.

A mountain gun and its carriage form a load for three mules. The leading mule carries the wheels and axle-tree, weighing 70 to 80 kilogrammes (155 to 177 lbs.), the second carries the gun-carriage, weighing 80 to 90 kilogrammes (177 to 199 lbs.), and the third carries the gun, weighing 102 kilogrammes (225 lbs.)

The mules with the ammunition boxes follow, each mule carrying two boxes.

The establishment of the personnel in a Mountain Battery is given in Appendix B, Table III; the distribution of the mules is as follows:—

	Peace.	War.
For wheels	4	6
For gun-carriages	4	6
For guns	4	6
For ammunition boxes ..	12	30
For stores and baggage ..	6	8
Spare	3	14
Total	33	70

* This is done in order to bring the centre of gravity lower down.

Five spare pack-saddles accompany a battery when on a war footing.

Chargers.

All officers of Mountain Artillery are mounted and are allowed to select chargers under the same conditions as cavalry officers (see p. 19).

The following non-commissioned officers and men of a Mountain Battery are mounted:—

	Peace.	War.
Sergeant-Major	1	1
Sergeants	2	2
Trumpeters	2	3
	5	6

The stores required to raise the batteries of Mountain Artillery to war strength are kept in the following artillery parks:—

For the 1st Regiment at Barcelona.
 2nd " " Madrid.
 3rd " " Zaragoza.

SUPPLY OF AMMUNITION.

The number of rounds allotted to the different classes of batteries is shown in the following table:—

Class of Battery.	In Peace.				In War.			
	Common shell.	Shrapnel.	Case.	Total.	Common shell.	Shrapnel.	Case.	Total.
10-cm. Position Battery ..	320	176	16	512	480	264	24	768
9-cm. Position Battery ..	368	224	16	608	552	336	24	912
8-cm. Field Battery	240	224	16	480	360	336	24	720
8-cm. Mountain Battery.	120	96	24	240	300	240	60	600

In Field and Position Batteries the number of rounds per gun is the same both in peace and war.* The distribution is as follows:—

* In time of peace only 16 rounds per gun are usually carried with the battery, the remainder being kept in store.

Nature of Gun.	Gun Limber.			Ammunition Wagon.				Total.
	Common shell.	Shrapnel.	Case.	Limber.		Body.		
				Common shell.	Shrapnel.	Common shell.	Shrapnel.	
10-cm. Position Gun	20	8	4	20	12	40	24	128
9-cm. Position Gun	23	11	4	23	15	46	30	152
8-cm. Field Gun	18	14	4	18	18	24	24	120

Ammunition for mountain guns is carried in boxes which hold ten rounds each. For each gun there are six boxes in peace and ten in war. Each box contains five rounds of common shell, four of shrapnel, and one of case, with tubes, fuzes, &c.

SCHOOL OF GUNNERY.

The central school of gunnery is established at Carabanchel, a few miles from Madrid, and has the following permanent Artillery staff:—

- 1 Colonel.
- 1 Lieutenant-Colonel.
- 2 Majors.
- 1 Captain.
- 1 Sergeant-Major.
- 2 Sergeants.
- 2 Corporals.
- 2 2nd Corporals.
- 4 1st class gunners.
- 29 2nd " "
- 1 Superintendent of the workshop.
- 2 Workmen.

There are also schools of gunnery at Torregorda (near Cadiz), at Barcelona, at Coruña, and at Segovia. They are each in charge of a Lieutenant-Colonel, who has one or two Captains to assist him.

Companies of Workmen.

Four companies of Artillery workmen are maintained, attached to the Artillery Parks at Madrid, Cadiz, Barcelona, and Coruña. These companies train artificers and supply them to parks and batteries. Each company consists of 50 non-commissioned officers and men.

CHAPTER VI.

ENGINEERS.*

The Engineers of the Home Army of Spain form five regiments, four of them being Sappers and Miners, and the 5th a Mounted Regiment. There is also a Topographical Brigade of two companies.

Each regiment of Engineers consists of two battalions, and each battalion of four companies and a depôt company.

The establishment of a regiment of Engineers is given in Appendix B, Table IV.

In dismounted battalions the three first companies are Sappers, and the 4th company Miners; but both have the establishment given below :—

	In Peace.	In War.
Captain	1	1
Subalterns	2	3
Infantry Officer attached ..	1	1
Total	4	5
Sergeant-Major	1	1
Sergeants	6	8
Corporals	6	8
Lance-Corporals	8	8
Privates { 1st class	6	8
{ 2nd class	38	195
Buglers.. .. .	4	4
Artificers	18	18
Total	87	250

The following is the establishment of a depôt company :—

1 Captain,
2 Lieutenants,
1 Sergeant-Major,
8 Privates.

These companies keep lists of the men from the battalion who are on unlimited furlough, and in time of war would receive and drill recruits, and forward them to the battalion.

There is no transport train attached to Engineer companies in time of peace; but on a war footing 12 pack mules are allotted to each company,† a small train section being detailed from the rank and file to look after them.

* San Fernando is the Patron Saint of the Spanish Engineers.

† In the field the Sapper company is the unit.

In a Sapper company the boxes carried by two of these mules contain six sets of smiths' tools, six sets of carpenters' tools, and six sets masons' and stone cutters' tools. Another mule carries explosives, with the necessary tools, and the rest carry each 8 axes, 12 shovels, and 12 pick-axes.*

In a Mining company the greater part of the tools are, if possible, carried in a wagon, but part is carried by the men themselves, the load for each man being about two kilogrammes (4 lbs.).

The 1st Battalion of the 5th, or Mounted Regiment, consists entirely of Pontooners; in the 2nd Battalion there are two Telegraph companies, and two Railway companies.

The whole regiment is commanded by a Colonel: the establishment of each battalion is given in Appendix B, Table IV.

A Pontoon company has the following establishment:—

Captain	1
Subalterns	3
	Total
	4
Sergeant-Major	1
Sergeants	6
Corporals	8
Lance-Corporals	8
Privates { 1st class	8
{ 2nd class	86
Trumpeters	4
Farrier Sergeant	1
Smith	1
Other Artificers	18†
	141

with 4 officers' horses, 6 troop horses, and 82 mules.

The pontoons used by the Spanish Engineers are flat-bottomed boats made of iron. There are two natures of these boats, one with a prow, the other with both ends square, and two boats, one of each nature, are united to form a pier.

The Pontoon company is the unit, and has 16 boats (eight of each sort) allowed to it. The length of superstructure carried is 53 metres (58 yards), and this can be laid either on the pontoons, or on trestles, which are also carried. The whole of the stores are transported on 16 wagons, each drawn by four mules,‡ and there are also two forage wagons, one baggage wagon, and a forge wagon.

* In 1881, complete Engineer equipment for two regiments out of the four, was stored in the Engineer Park at Guadalajara.

† Ten carpenters, two wheelers, one caulker, three smiths, one quarryman, and one rope maker.

‡ In case of rapid movements being necessary, the number of mules may be increased to six.

A pack train for the conveyance of bridging material in districts where there are no roads has also been organized, but is not maintained in peace time. In this train no pontoons are carried but only trestles, and the length of bridge which can be constructed is 27·86 metres (30 yards). The pontoon detachment accompanying such a train would consist of one officer and 40 non-commissioned officers and men, and the bridging material would be carried on 20 pack mules.

The establishment of a Telegraph company is as follows, in time of peace :—

Captain	1
Subalterns	3
	4
Sergeant-Major.. .. .	1
Sergeants	13
Corporals	8
Lance-Corporals	8
Privates { 1st class	8
{ 2nd class	170
Trumpeters	4
Farrier	1
Smith	1
Saddler	1
Other Artificers.. .. .	18
	233

with 4 officers' chargers, 5 troop horses, and 34 mules.

In time of war the establishment is similar, except that the number of privates is increased.

Each Telegraph company forms four sections* of similar strength, and when a line of field telegraph has to be set up, each of these sections undertakes the construction of the line for a portion of the distance.

Each section forms the following working parties :—

		Strength.	
		N.C.O.'s	Men.
1.	The Tracing party	1	3
2.	The Advanced guard	Variable.	
3.	The Construction party	1	3
4.	The Splicing party	1	1
5.	The Fixing party	1	2

* A modification of this arrangement has been suggested, by which each company would form five sections, viz. : one with wheeled transport, and four with pack transport, the personnel in each case amounting to 50 of all ranks.

Their duties are as follows:—

The tracing party, which may be in charge of an officer, has to select and clear the most suitable track for the telegraph, and to peg it out so that the party following may easily recognize it. The men of this party carry a pick, a spade, and a hatchet.

This party is accompanied by the advanced guard, whose duty it is, on arriving at the end of the projected line, at once to commence the construction of a telegraph station.

The construction party follows and lays out the wire on the selected line. Each of the three men of the party carries a drum of insulated wire on a frame strapped on his shoulders, and as he moves forward the wire uncoils. Each drum carried in this way holds 500 metres (547 yards) of wire.

The splicing party who follow, make good the joints between the various sections, and repair the wire where it has been damaged.

The fixing party secure the wire to the ground by iron pins, and reduce as much as possible the chance of its being injured.

The line is finally inspected by a sergeant.

The equipment allotted to a Telegraph company consists of:—

16 Morse Telegraph Instruments,
20 Telephones,
16 Heliographs,
80 Kilometres (50 miles) insulated wire,
30 Kilometres (18½ miles) double cable.

These are carried in two carts (one of which is fitted as a central telegraph office), and in 52 iron boxes, suited for pack transport.*

A Railway company has the following establishment:—

Captain	1
Subalterns	3
	<hr/>
	4
	<hr/>
Sergeant-Major	1
Sergeants	6
Corporals.. .. .	8
Lance-Corporals.. .. .	8
Privates { 1st class	8
{ 2nd class	95
Trumpeters	4
Farrier	1
Smith	1
Other Artificers	18
	<hr/>

150

with 4 officers' chargers, 5 troop horses, and 16 mules.

* Each box filled weighs about 106 kilogrammes (234 lbs.).

Each Railway company is divided into four sections, and each section has a special duty.

The 1st section is employed in laying the permanent way, bridge building, &c.

The 2nd attends to the traffic management and the telegraphs.

The 3rd repairs or alters rolling stock, and the 4th is responsible for the management of the depôt.

In time of peace the officers and men of the 1st section are employed by certain Spanish railway companies* in works of construction, and those belonging to the 2nd section, as point-men, guards, &c. This section also furnishes engine drivers for duty at the central works of the Northern Railway Company at Valladolid.

The railway material kept in store amounts to what is necessary for laying and working a line 72 kilometres (45 miles) in length.

THE TOPOGRAPHICAL BRIGADE.

This body is under the command of a Colonel, who has a Major and a Paymaster to assist him, and consists of two companies, each of which has the following establishment:—

Captain	1
Subalterns	2
Non-Commissioned Officers	12
Privates	28

The Engineer force maintained in the Spanish Colonies is described in Chap. XIV.

ENGINEER PARKS.

Engineer Parks are of three natures, viz. :—

Mobile Field Parks,
Fortress Parks,
Siege Parks.

Engineer Field Parks are formed for the supply of tools to the Army in the field, and consist of specially organized columns of transport. These columns are calculated on the following scale :—

For a force of 30,000 men	24 wagons.
" " 20,000 "	20 " "
" " 10,000 "	7 " "

As a rule the loads of the wagons are distributed as follows :—

Wagons 1 to 3. Entrenching and carpenters' tools.
Wagon No. 4. Reserve entrenching tools, carpenters', masons', and smiths' tools.

* The Northern Line principally.

- Wagon No. 5. Mining materials, explosives, fuzes, &c.
 " " 6. Wheelers' tools, and tools for repair of carriages.
 " " 7. Railway tools.
 " " 8. Extra telegraph materials.
 " " 9. Materials necessary for demolitions.
 " " 10. Stone cutters and masons' tools.
 " " 11. Carpenters' tools.

The remainder carry various tools and material, according to the requirements of the campaign.

These field parks are maintained in time of peace as follows:—

For 10,000 men, at Granada and Burgos.

For 20,000 men, at Cadiz, Zaragoza, Madrid, Valladolid, Ferrol, Cartagena, and Pamplona.

For 30,000 men at Barcelona.

In case of mountain warfare a special mountain train is formed instead of the wagon train. A unit of this mountain train has generally the following composition:—

5 sections of 5 mules each	25
2 " " 2 " " "	4
1 " " 4 " " "	4
Reserve	6

Total 39 mules.

In the 1st sections, the first three mules carry entrenching tools; the 4th mining tools, carpenters' and masons' tools; and the 5th, explosives.

In the 2nd sections one mule carries a field forge and anvil, and the other carries farriers' tools and shoes.

The four mules of the 3rd section are laden with charcoal and the books of the train, &c.

One such unit is allowed to a park, whether for 10,000 men or for 20,000 men; but two units to a park for 30,000 men.

The Fortress Engineer Parks contain in time of peace the supply of tools necessary for the ordinary works of the fortress where they are established, as well as for the equipment of the Engineer troops stationed at the place, when raised to war strength.

The Engineer Siege Parks have no definite organization laid down.

CHAPTER VII.

SPECIAL CORPS.

The following Special Corps are permanently maintained in connection with the Home Army :—

1. The General Staff.
2. The Garrison Staff.
3. The Corps of Secretaries.
4. The Battalion of Military Clerks.
5. The Royal Halberdiers.
6. The Disciplinary Corps.
7. The Carabineros.
8. The Guardia Civil.
9. The Corps of Invalids.
10. The Militia.
11. Local Troops on the African Coast.

1. *The General Staff.*

The General Staff forms a distinct body of Officers, who are unconnected with any special arm. Their regular establishment is as follows:—

- 5 Brigadiers.
- 13 Colonels.
- 17 Lieutenant-Colonels.
- 25 Majors.
- 40 Lieutenants.

In addition to these, however, there are supernumeraries of all ranks.

This Corps of Officers is recruited exclusively from Lieutenants who have passed through the Staff Academy,* and those who join the corps continue to belong to it until they attain the rank of Major-General.

In time of peace the Officers of the General Staff fill various appointments, either directly under the Director-General of the General Staff (see page 101), or on the staff of the Captains-General of the different provinces.

In time of war they furnish the Staff of the Army Corps, Divisions, Brigades, &c.

2. *The Garrison Staff.*

This body is employed in garrisons or other fortified posts, in the Peninsula and adjacent islands.

These garrisons and posts are of five classes, the first three

* See page 119.

forming "Military Governments," and the fourth and fifth "Military Commands."*

Governments of the first class are under Major-Generals; of the second under Brigadiers, and of the third under Colonels, Lieutenant-Colonels, or Majors. Military Commands of the fourth class are given to Captains, and those of the fifth class to Lieutenants of the Garrison Staff.

In garrisons of the first class, the "Sergeants-Major" are Colonels or Lieutenant-Colonels; in those of the second class, Majors. Adjutants of the first class are Captains; those of the second class, Lieutenants, and those of the third class, Ensigns.

Major-Generals and Brigadiers, employed on the Garrison Staff, are directly under the Minister of War. All other officers employed on this staff are under the Director-General of the General Staff. The establishment of officers thus employed is:—

6 Colonels.
25 Lieutenant-Colonels.
44 Majors.
66 Captains.
67 Lieutenants, and
48 Ensigns.

3. *The Corps of Secretaries.*

This body is subordinate to the General Staff, and its members are employed in the offices of the Captains-General, under the immediate orders of the Staff of the District, for conducting correspondence, &c. The corps consists of 16 officers of the first class, 32 of the second class, and 20 of the third class, with the rank and pay of Captain, Lieutenant, and Ensign respectively.

4. *The Battalion of Military Clerks.*

The men of this battalion are employed in various military offices at Madrid,† and at the headquarters of military districts. The men are shown as supernumeraries in the regiments to which they belong.

5. *The Royal Halberdiers.*

This corps consists of two companies, and is exclusively employed in the Royal Palace. The corps is under the orders of a Captain-General, or Lieutenant-General of the army, with a Major-General second in command, and a staff consisting of two Adjutants (a Colonel and a Lieutenant-Colonel), two Surgeons and a Chaplain.

* See Appendix A, Table I.

† War Ministry; offices of Directors-General of Infantry, Cavalry, Artillery, Engineers and Staff; also in offices of Captain-General of New Castille and Military Governor of Madrid.

Each company has the following establishments:—

- 1 Captain (a Colonel in the Army).
- 2 Lieutenants (Colonels or Lieutenant-Colonels).
- 2 Ensigns (Majors).
- 1 Sergeant-Major (Captain).
- 4 Sergeants (Lieutenants).
- 8 Corporals (Ensigns).
- 100 Halberdiers.
- 2 Drummers.
- 4 Servants.

The Halberdiers are all old soldiers of good character.

6. *The Disciplinary Corps.*

There are two Disciplinary Corps, viz.:—The Ceuta Regiment, and the Melilla Battalion, permanently stationed in the garrisons whose names they bear. The establishment of officers in these corps is the same as in a Regiment of Infantry and a Battalion of Rifles respectively (See Appendix B, Table I), with a varying number of rank and file, consisting of men sentenced to serve in these corps.

7. *The Carabineros.*

The Carabineros, or Customs Guards, are maintained and paid by the Treasury Department (Ministro de Hacienda), but as regards their organization and discipline, are under the Minister of War. In 1882–83 their cost amounted to £578,249.

The Corps consists of 92 companies and 22 mounted sections, and in 1878 its strength amounted to 539 officers and 10,901 men of the dismounted, and 33 officers and 583 men of the mounted branch. There were also 70 officers and 2,498 men, infantry veterans. Most of the officers are retired Colonels or Lieutenant-Colonels of the regular army.

The organization of the Carabineros is given in Chap. XV, p. 102.

8. *The Guardia Civil.*

This is a constabulary force, employed under the orders of the Minister of the Interior (Ministro de la Gobernacion), but dependent on the Minister of War as regards organization and discipline. Its cost in 1882–83 amounted to £766,581.

The Guardia Civil forms 15 regiments (Tercios), and the strength of the corps amounted, in 1878, to 780 officers and 14,756 men.

Men of the Guardia Civil are selected exclusively from those who have served in the active army, and the members of the corps are considered to be always on duty. The distribution of the Tercios is given in Chap. XV, p. 103.

In time of war, the Guardia Civil perform the duties of Military Police with the army, and also furnish escorts.

9. *The Corps of Invalids.*

This Corps is maintained for the purpose of providing a home for soldiers and sailors of all ranks, up to that of Colonel, who may have become unfit to earn their livelihood by reason of wounds, or illness contracted in the service of the country.

It consists of a permanent staff and a variable number of Invalids. The permanent staff is as follows:—

- 1 Director-General (Captain-General or Lieutenant-General).
- 1 Second in command (Brigadier).
- 1 Commandant of the Barrack (Field Officer).
- 2 Adjutants (Majors).
- 1 Paymaster* (Field Officer or Captain).
- 1 Quarter Master* (Captain or Lieutenant).
- 1 Surgeon.
- 1 Chaplain.

The non-commissioned officers and men admitted to the Corps are organized in companies of 100 strong, each company having a Captain and two subalterns allotted to it from the Invalid officers.

In 1880 the following officers belonged to the Corps:—

- 12 Colonels.
- 16 Lieutenant-Colonels.
- 42 Majors.
- 44 Captains.
- 26 Lieutenants.
- 20 Ensigns.

In 1878 the number of men was 320.

10. *The Militia.*

The only Militia force now maintained is the Militia of the Canary Islands: this consists of the following units:—

1st	Provincial Battalion	of La Laguna.
2nd	”	” of La Orotava.
3rd	”	” of Las Palmas.
4th	”	” of Guia.
5th	”	” of La Palma.
6th	”	” of Lanzarote.
7th	”	” of Abona.
8th	”	” of Fuerteventura.
9th	”	” of La Gomera.
Section	”	” of Hierro.

* Selected from among the Invalids.

In time of peace, only one "Provisional" Battalion is embodied. It has a strength of 500 men, and is composed of six companies.

11. *Local Troops on African Coast.*

At each of the Spanish garrisons on the coast of Morocco, a small local force is maintained as follows:—

At Ceuta there is a company of Ceuta Lancers, and a company of boatmen. The former consists of one Captain, one Lieutenant, one Ensign, one Veterinary Surgeon, and 50 to 55 Native (Moorish) Troopers. Their duty in peace time is to watch the boundary of the Spanish possessions. The men, who must be between 20 and 30 years of age, provide their own horses, clothing, and equipment.

The company of boatmen consists of a coxswain (with relative rank of Lieutenant), a second (with rank of Ensign), 6 sergeants, 2 caulkers, 51 sailors, and four boys.

This company is under the immediate orders of the Captain of the Port, and the men serve on board various Government boats, but in case of necessity they can be employed as artillerymen.

For duty in other garrisons, there are five sections of boatmen, with a total strength of about 115 of all ranks. Four of these sections are allotted to the garrisons of Melilla, the Chafarinas Islands, Peñon de la Gomera, and Alhucemas, and the fifth forms the crew of a cruising launch.

CHAPTER VIII.

RESERVE AND DEPÔT TROOPS.

Cadres for Reserve units are maintained in time of peace for Infantry, Cavalry, and Artillery.

RESERVE INFANTRY.

There are 140 Reserve cadre Infantry battalions, corresponding to the 140 battalions of Infantry and Rifles of the Standing Army, and 140 Depôt battalions with numbers and titles identical with those of the Reserve battalions. These battalions, both Reserve and Depôt, are organized on a territorial basis, each district having its own Reserve battalion and Depôt battalion.*

Infantry Reserve battalions keep on their lists the names of all men between six and twelve years' service who formerly

* See Appendix C, Tables I and II.

served in the ranks of the Active Army, provided they did not belong to the Cavalry, Artillery, or Engineers. In time of war* these men are called on to join the Reserve battalions, which consist of four companies, and are raised to the same strength as a battalion of the Infantry of the Line. On mobilization, a Depôt company would be formed by each Reserve battalion, the duty of this company being to take charge of the documents, &c., of the battalion when it moves away from its station.

Infantry Depôt battalions keep on their lists the names of men of the Active Reserve who are on unlimited furlough from any branch of the service except Cavalry, Artillery, and Engineers. In case of mobilization, these men join the Depôt battalion, and are forwarded by it to the battalion of the Active Army associated with the district. The Depôt battalion moreover receives each year† the number of recruits allotted to the battalion of the Active Army, and forwards these recruits to it.

In addition to the above-mentioned duties, the staff of the Depôt battalions keep a register of all the available recruits residing in the district, whether belonging to the Active Army or to the Supplementary Reserve, and in case of a general mobilization, these men would be called on to join the Depôt battalions, and might be sent forward, the one class to join the battalion of the Active Army, and the other the Reserve battalion belonging to the district.

A Depôt battalion, like a Reserve battalion, consists of four companies.

Infantry Reserve and Depôt battalions are distributed in the various military districts, and grouped so as to form brigades, as shown in Appendix C, Table III.

RESERVE CAVALRY.

There are 24 regiments of Reserve Cavalry, corresponding to the Cavalry regiments of the Standing Army. The duty of these regiments is to keep lists of all Cavalry Reserve men within their districts, and also of all horses suitable for military purposes. On mobilization, the horses necessary would be requisitioned, and the Reserve men called in, and these Reserve regiments would be raised to the same establishment as a Cavalry regiment of the Line on a war footing.

In addition to the above, there are 24 Depôt squadrons,‡ established at the same places as the Reserve Cavalry regiments. These Depôt squadrons keep lists of the Cavalry men on unlimited furlough residing within the district; and in case of mobilization assemble them, and forward them to the Cavalry regiment of the Standing Army associated with the district.

* See page 9.

† For the present the old-recruiting arrangements remain in force.

‡ For establishment, *vide* Appendix B, Table II.

The distribution of these Reserve units is given in Appendix C, Table IV.

RESERVE ARTILLERY.

There are six regiments of Reserve Artillery, for which in peace time cadres are maintained at the following places:—

1st. Regiment at Madrid for provinces of	{ Segovia. Cuenca. Toledo.
2nd. Regiment at Barcelona for provinces of	{ Barcelona. Gerona. Tarragona.
3rd. Regiment at Seville for provinces of ..	{ Huelva. Malaga. Caceres.
4th. Regiment at Coruña for provinces of ..	{ Coruña. Lugo. Orense.
5th. Regiment at Zaragoza for provinces of	{ Lerida. Teruel. Soria.
6th. Regiment at Valladolid for provinces of	{ Avila. Oviedo. Santander.

These regiments keep lists of all Reserve men of the Artillery who reside within their districts.

The names of all men on unlimited furlough are kept on the lists of the regiments with which they served, until the completion of six years' total service, when they are transferred to the lists of the Reserve regiments mentioned above.

ENGINEER DEPÔTS.

There are no regiments of Reserve Engineers, but, as mentioned at page 26, each of the ten Sapper battalions has a Depôt company which keeps a list of the men on unlimited furlough belonging to the battalion. In time of war these Depôt companies would also drill the recruits, and keep their battalions up to their proper strength.

The Engineer commandant of the chief town in each military district is responsible for the Reserve men belonging to the corps, and also for the duties connected with recruiting, in conjunction with the Commanding Officer of the Engineer regiment.

CHAPTER IX.

MILITARY DEPARTMENTS.

The Departments in the Spanish Army are—

1. The Intendance.
2. The Medical Department.
3. The Department of Military Justice.
4. " " Clerks.
5. The Chaplains' Department.
6. The Veterinary Department.
7. The Riding-Masters' Department.

1. *The Intendance Department.*

The Intendance Department (Cuerpo Administrativo del Ejército) is a closed seniority corps to which admission is gained by passing through a special academy at Avila. The Corps has the following establishment :—

1	Director-General	(a Lieutenant-General of the Army).
1	Sub-Director	(an Army Intendant), with relative rank of Major-General.
4	Army Intendants,	with relative rank of Major-General.
15	Divisional Intendants	" " Brigadier.
20	Sub-Intendants	" " Colonel.
50	1st Class Commissaries of War	" " Lieut.-Colonel.
145	2nd " "	" " Major.
190	1st Class Officials	" " Captain.
240	2nd " "	" " Lieutenant.
160	3rd " "	" " Ensign; and
	The Brigade of Workmen.	

The business of the Department is carried out in the Central Office at Madrid, and at the headquarters of the various military districts.

The work at headquarters is divided into two main branches, viz. :—

- The directing section; and
- The controlling section.

The latter branch is under the Sub-Director of the Intendance Department, and is divided into three sub-sections, viz. :—

- Accounts.
- Administrative services.
- Arrears.

In each military district there is a similar arrangement, an Army or Divisional Intendant being at the head, with a Sub-Intendant under him, in charge of the controlling section.

There are also two special sections, viz., one at Madrid, under the Intendant-General of New Castille, to attend to the pay and accounts of various corps employed in the capital, and the other at Malaga, to attend to the business connected with the garrisons on the coast of North Africa.

The Brigade of Workmen.

The establishment of the Brigade of Workmen is as follows:—

- 1 Sub-Intendant.
- 1 2nd Class Commissary.
- 1 1st Class Official (Paymaster).
- 1 2nd ,, (Quartermaster).
- 11 Sergeants-Major.
- 44 Sergeants.
- 10 Buglers.
- 70 Corporals.
- 70 Lance-Corporals.
- Workmen as may be required.

The total effective of the Brigade is fixed at 1,000 men, but all beyond the number actually required are sent away on furlough. The men who join the Brigade must have served six months in the Infantry, and must be acquainted with some trade, such as baker, carpenter, &c.

This Brigade is divided into 13 sections, corresponding to the military districts* (see Appendix A), the strength of each section being in proportion to the amount of work in the district.

Transport.

In time of peace no military transport establishment is maintained, but all transport work is carried on by contracts entered into by the Intendance Department with the railway companies or other carriers.

During the Carlist War, a Brigade of Military Transport was established under the orders of the Intendance Officers. It was composed of different mountain companies,—some for pack transport with mules, others with wagons. On the termination of the war the Brigade was broken up, and the *matériel* stored in the Intendance Dépôt at Avila.

On mobilization a similar Transport Brigade would be formed, composed of two divisions, one for wheeled, the other for pack transport.

Each of these divisions would comprise as many companies as are required for the special duties to be carried out.

It is proposed that as soon as the finances of the Kingdom allow, one company of each division shall be permanently maintained in peace time.

* Except the Canary Isles.

2. *The Medical Department.*

This Department is under a Director-General, a Lieutenant-General in the Army, and is divided into the Surgeons' and Apothecaries' Branches, which have the establishments given below :—

Surgeons' Branch—

2	Inspectors of	1st Class	with relative rank of	Major-Genl.
5	"	2nd	"	Brigadier.
15	Sub-Inspectors,	1st	"	Colonel.
20	"	2nd	"	Lieut.-Col.
*60	Surgeons-Major		"	Major.
*139	Surgeons,	1st	"	Captain.
160	"	2nd	"	Lieutenant.

Apothecaries' Branch—

1	Inspector,	2nd Class,	with relative rank of	Brigadier.
2	Sub-Inspectors,	1st	"	Colonel.
3	"	2nd	"	Lieut.-Col.
8	Apothecaries Major		"	Major.
18	1st Class Apothecaries		"	Captain.
17	2nd	"	"	Lieutenant.

In each military district there is a distinct Medical Staff under a "Director Sub-Inspector," who is usually a Sub-Inspector of the 1st Class. Each military hospital within the district is under the care of a Surgeon-Major, the number of assistants varying according to requirements.

The Sanitary Brigade.

This body, in time of peace, furnishes attendants for the military hospitals, and is consequently divided into 14 sections corresponding to the number of military districts. Each of these sections is subdivided according to the number of military hospitals in the district.

In time of war the Sanitary Brigade would furnish cadres for the sanitary sections which would be attached to each Army Corps.

The peace establishment of the Sanitary Brigade is as follows :—

1	2nd Class Sub-Inspector in Command.
2	Surgeons.
24	Dressers.†
40	Sergeants.

* There are in addition 9 Surgeons-Major and 6 1st Class Surgeons temporarily attached to the Army of the North.

† "Sub-ayudantes," officials with relative rank up to Captain. This position is filled by non-commissioned officers who have passed a technical examination.

100 Corporals.
 1 Bugler.
 40 1st Class Hospital Attendants.
 620 2nd " " "

Of these, however, only a part determined annually are retained for duty, and the remainder are sent home on furlough. Such men, as well as reservists of the Sanitary service, are under the orders of the medical authorities of the district within which they reside.

In order to secure a reserve of medical officers in time of war, young men who have completed their medical studies would be employed as Acting Surgeons, and lists of such young men are kept by the Medical Department, so that in case of need they may be at once called on to join.

3. *The Military Justice Department.*

This Department consists of a number of legal officials who, as regards the exercise of their judicial authority, enjoy absolute independence and liberty of opinion, and are entitled to the same respect as other judicial authorities.

The duty of this Department in peace is to prepare the General Orders, &c., which constitute the basis of the Military Code. Its members are also employed in preliminary investigations ("sumaria" or *procès verbal*) and on courts-martial, where they act as assessors.

At the head of the Corps is a Director-General, a Lieutenant-General, who is also President of the Supreme Council of the Army and Navy.

In each military district there are two officials of this Department, viz., an Auditor and a Lieutenant-Auditor. In some cases there is also an assistant as well.

The titles of officials of the Department with their relative ranks are as follows:—

Auditor-General of the Army, with relative rank of Brigadier.	
District Auditors, with relative rank of Colonel.	
1st Class Lieutenant-Auditors, with relative rank of Lieut.-Colonel.	
2nd Class Lieutenant-Auditors, with relative rank of Major.	
3rd	Captain.
Assistants	Lieut.

In 1879 there were in all 52 officials of this Department.

4. *The Department of Military Clerks.*

This Department is attached to that of Military Justice. The clerks are of three classes, and one or more is attached to each military district.

5. *Chaplain's Department.*

This consists of a Vicar-General (the Patriarch of the East Indies), 29 Vice-Vicars, and 279 higher and lower ecclesiastics.

They are attached to regiments and battalions, as shown in Appendix B, and also to schools, hospitals, &c.

All Chaplains rank as Captains.

6. *The Veterinary Department.*

This Department is under the Director-General of Cavalry, and consists of—

1 Chief Professor, with relative rank of	Lieut.-Colonel.
2 Inspectors	Major.
43 1st Class Professors	Captain.
75 2nd	Lieutenant.
89 3rd	Ensign;

besides students.

Veterinary Surgeons are attached to the Mounted Corps, as shown in Appendix B, and also to the Cavalry depôts, Government studs, &c.

7. *The Riding-Masters' Department.*

This Department is also under the Director-General of Cavalry, and consists of

1 Chief Professor, with relative rank of	Lieut.-Colonel.
5 Chief Instructors	Major.
23 1st Class Riding-Masters	Captain.
34 2nd	Lieutenant.
37 3rd	Ensign.

Admission to the Corps is gained by proficiency in the riding school, and promotion is, as a rule, by seniority. Riding-masters are attached to the mounted corps, &c., as shown in Appendix B.

CHAPTER X.

CLOTHING, EQUIPMENT, AND SMALL-ARMS.

The ordinary dress of the Spanish soldier is a great-coat and trousers, the tunic being only worn at reviews, and full-dress parades in summer.

INFANTRY.

Regiments of the Line are clothed and equipped as follows:—

Head-dress.—The “Ros”* of grey felt, with black leather top and peak. In full dress a plume of red worsted is worn projecting in front. For wet weather there is a waterproof cover, and for summer, one of white linen. The Infantry forage cap is of the French pattern of blue cloth with a red tassel, the number of the regiment being worked on the front of the cap.

Great-coat (Capote).—Light blue cloth, reaching to 4 inches below the knee: double-breasted, with red collar, on which the regimental number is fastened. Shoulder-straps of cloth like the coat edged with red piping, and terminating at the point of the shoulder in red “wings.” Buttons, brass, with the arms of Spain and the word “Infanteria.”

Tunic (Levita).—Dark blue cloth, single-breasted, with red collar, cuffs, and shoulder-straps. The number of the regiment is on the collar. Buttons as for great-coat. With the tunic a white linen collar is worn.

Jacket.—Dark blue cloth, with blue collar and shoulder-straps. Buttons as for great-coat.

Trousers.—Red, without stripe.

Gaiters.—Black cloth reaching to the knee.

Boots.—Ankle.

Sandals.—The hempen sandal of the country.

Gloves.—In summer white cotton; in winter green wool.

Equipment.

Knapsack.—Black leather. It is collapsible like a havresack, and has two separate compartments, one of which is lined with waterproof canvas to carry food. The lid is of thin board covered with leather, and has fastened on top a cartridge case holding 40 rounds.

Waist-belt.—Black leather, with square brass plate, with regimental number on it. This belt carries on the left side an ammunition pouch, holding 20 cartridges; at the back, under the knapsack, another pouch for 20 cartridges, and on the right side a bag holding 20 loose cartridges. The total number of cartridges carried thus amounts to 100. The weight is taken by braces of black leather, which pass over the shoulders, and fasten to the waist-belt before and behind.

Wine flask (bota).—Of leather covered with dark blue canvas, carried by a string over the shoulder. It holds about two pints.

Mess-tin.—Two shallow basins strapped together and carried on the back of the knapsack. A flat tin drinking cup is carried inside, as well as a knife and a spoon.

Havresack.—Of white canvas, fastening with strings.

* This head-dress is shaped something like a low képi. It is called after its inventor, General Ros de Olano, who is said to have fashioned it after the pattern of the Scotch bonnet.

Other Articles.—The remaining articles carried by the soldier are a towel, a handkerchief,* a scarf (faja), and a bag of cleaning materials.

Arms.

Rifle.—The rifle in use in the Spanish Infantry is the Remington, model 1871.† It is a chambered rifle, with a bore of 11 mm.; it is 4 ft. 3¼ ins. in length, without bayonet, and 6 ft. 1½ in. with bayonet. Its weight without bayonet is 9 lbs. 1 oz., and with bayonet 9 lbs. 14 oz. It is rifled in six grooves, and is sighted from 200 to 1,000 metres (1,100 yards) at intervals of 200 metres. It has an effective range of 1,600 metres (1,750 yards), and the maximum range with an elevation of 28 to 30 degrees is from 2,800 to 3,000 metres (3,100 to 3,300 yards). The initial velocity is 416 metres (1,364 ft.) per second.

Bayonet.—The weight of the bayonet is 13½ oz.; its total length is 24¼ ins. It is triangular in section.

Ammunition.—The cartridge is central fire and bottle necked. It is made of brass, and has a lubricating wad over the powder. The bullet is cylindro-ogival, with a hollow base; the length of the cartridge is 3 in., and its weight 1.4 oz. The cartridge case weighs 10.1 grammes (0.35 oz.), the bullet 21.5 grammes (0.882 oz.), and the charge 5 grammes (0.176 oz.).

Revolver.—This weapon is carried by all officers. The pattern hitherto in use is the Lefauchaux, but it is about to be replaced by a modification of the Smith and Wesson revolver; the last-mentioned revolver has six chambers, and the chambers and barrel are hinged on to the butt. When a catch over the lock is released the barrel and chambers fall forward, and an extractor in the axis of the chamber block forces out the empty cases.

The weight of the pistol is 2 lbs. 5 oz.; its calibre is 0.433 in., and it is rifled in 5 grooves.

Ammunition.—The cartridge weighs 0.75 oz., the case 5.9 grammes (0.2 oz.), the bullet 14.2 grammes (0.5 oz.), and the charge 1.3 grammes (0.046 oz.).

The other infantry firearms which still exist in the Spanish service are the musket of 1846, the rifle of 1859, and the Berdan rifle of 1857.

Small numbers of the Kropatschek and Lee repeating rifles have also been issued experimentally.‡

Tools.—The only tools carried by the Spanish Infantry are those of the Pioneers. Pioneers carry the rifle and bayonet as well as the tools, and the "machete," or fascine knife.

* The infantry handkerchief has printed on it a description of the Remington rifle, with drawings of the different parts of the lock, and illustrations of the defence of a farm, a wood, &c. The men use it in barracks as a cover for their kit.

† This weapon is made at the factory of Oviedo. The original arm obtained in America differs slightly from it in being a little heavier and shorter.

‡ In addition to these, and the Winchester carbines issued to the cavalry, the Pieri and Krag-Petersen rifles and the Evans carbine were experimented on by a Committee in 1881.

A light spade has been suggested by Captain Diaz, which consists of a steel body, weighing $1\frac{1}{2}$ lbs., carried on the back of the knapsack, and fitting on to the bayonet socket. The bayonet scabbard is made of wood, cylindrical in section, and forms the handle of the spade.

RIFLES.

Head-dress.—"Ros" as for Infantry of the Line, but with green plume. The forage cap has a bugle on it, with the number of the battalion inside the circle formed by the bugle.

Great-coat.—As for Infantry of the Line, but with green collar, with bugle and number of battalion within it, and green wings.

Tunic.—As for Infantry of the Line, but with green facings. The number of the battalion within the bugle on the collar, as in the great-coat.

Trousers.—Red cloth, as for Infantry of the Line.

All other articles of clothing and equipment, as for Infantry.

CAVALRY.

The Spanish Cavalry, consisting of the Royal Escort Squadron, Lancers, Chasseurs, and Hussars, are clothed and equipped as follows:—

THE ROYAL ESCORT SQUADRON.

Head-dress.—Iron helmet with a shield in front, bearing the initials of the Sovereign, and surmounted by a plume of white feathers.

Coatee (for State occasions).—Dark blue cloth, with red lappels, collar, and cuffs embroidered with silver lace. Pocket flaps and skirts similarly ornamented, and on the extremities of the latter four fleurs-de-lys, made of white metal.

Tunic.—Single-breasted, of dark blue cloth, with red collar and cuffs, ornamented with silver lace.

Breeches.—White cloth.

Overalls.—Dark blue cloth, with double red stripe.

Boots.—Long, with high buttoned leggings.

Cloak.—White cloth, with hood. Collar red.

Gloves.—White buckskin.

Equipment.

Waist-belt.—White, patent leather, with white metal plate, bearing Royal cipher and crown, with slings for sword.

Cross-belt.—White patent leather, with cartridge pouch of black leather.

Havresack.—Brown leather, with straps of the same.

Arms.

Men of the Royal Escort Squadron are armed with Remington carbines (see page 49) and swords. The latter is straight, and has a steel guard with four bars, and the Royal initials and crown in the middle of the hilt.

LANCERS.

Head-dress.—Iron helmet, with white horsehair plume. The helmet has a badge of yellow metal in front, with the number of the regiment. When dismounted, Lancers wear the "Leopoldina," a cap of white felt. The forage cap worn in barracks, is a soft round cap of blue cloth, with a red band.

Tunic (Levita).—Single-breasted. Dark blue cloth, with red collar and shoulder-straps; the number of the regiment is on the collar.

Jacket.—French grey cloth, without facings.

Overalls.—Madder-red cloth, with stripes of the same colour as the tunic, booted with black leather.

Boots.—A sort of short Wellington boot is worn.

Spurs.—The spurs worn are made to strap on; they have large rowels nearly square.

Cloak.—French grey, with a cape; the number of the regiment is worked in worsted on the collar.

Gloves.—White buckskin.

Equipment.

Haversack.—Brown leather, with a strap of the same material; there is another linen bag carried within it.

Sword-belt.—Black varnished leather, with two plain slings; the belt fastens with a hook of yellow metal.

*Cross-belt.**—Black varnished leather, with a plate of yellow metal in front bearing the number of the regiment, and a small cartridge pouch behind.

Arms.

In each squadron of Lancers three sections are armed with lances and sabres, and the fourth section with carbines and sabres.

Lance.—Total length, 8 ft. 7 $\frac{3}{4}$ ins.; weight, 4 $\frac{1}{2}$ lbs. The pennon is made of three bands of equal width, the upper and lower being red, and the centre yellow; the lance is carried in a bucket on the stirrup, and has a leathern arm-loop.

Sabre.—Length, 3 ft. 3 $\frac{1}{2}$ ins.; weight, 4 $\frac{1}{2}$ lbs. The hilt is solid, and is furnished with a small loop of leather for the forefinger, in addition to the ordinary sword knot of black leather.

Carbine.—Remington (see page 49), carried in a bucket on the horse's shoulder, the butt resting on the man's right thigh.

* Only for those armed with carbines.

Horse Appointments.

Saddle.—The saddle used by the Spanish Cavalry differs little from an ordinary English hunting saddle, worn with a breastplate and a crupper. There are two wallets in front, and a valise behind, carried on two pads attached to the back of the saddle. The cloak is carried in front, under a cover of French grey cloth, edged with red, and for men with firearms the carbine bucket is suspended from a ring on the pommel.

Bridle.—Plain headstall, with pelham bit, without ornaments.

Valise.—Of French grey cloth, edged with red.

Shabracque.—Blue cloth, edged with red.

CHASSEURS.

Head-dress.—Small shako of blue cloth, with red band round the top, and a red cockade, and a bugle of white metal in front. A small sky-blue plume of goat's hair is worn in full dress. The shako has a black cap-line.

In undress a plain blue forage cap is worn.

Dolman.—A very short tunic of sky-blue cloth, with red collar and cuffs. The number of the regiment in brass is on each side of the collar. There are ten rows of black cord across the front, and the back seams and bottom of the dolman are ornamented with black braid. The buttons are of white metal, and have a bugle stamped on them.

Jacket.—As for Lancers.

Overalls.—As for Lancers, but with sky-blue stripe.

The other articles of clothing are the same as for Lancers.

Equipment.

Sword-belt.—Brown leather; other articles as for Lancers.

Arms.

Sabre and carbine (Remington) carried as in the Lancers.

Horse Appointments.

As for Lancers.

HUSSARS.

Head-dress.—Small shako with black leather top. The shako is formed of three bands, of which the top is yellow, and the lowest black leather, the centre being white in the 19th and red in the 20th Hussars. A small sky-blue plume is worn by both regiments, and a badge in front. This badge is the Star of San Fernando for the 19th, and the arms of Spain for the 20th. The cap-line is yellow for both regiments.

In undress, a forage cap of sky-blue, edged with yellow, is worn.

Dolman.—In the 19th Hussars, of sky-blue cloth, with 15 rows of yellow cord across the breast. Yellow braid on sleeves and on seams. Buttons of yellow metal with the letters H.D.P.* In the 20th Hussars the dolman is red, the braid and buttons being yellow.†

Jacket.—Of sky-blue cloth, edged with yellow braid, for the 19th Hussars; and of red cloth, edged with yellow, for the 20th Hussars.

Pelisse.—Of white cloth, edged with black lambskin, and ornamented in front with four rows of yellow cord.

Overalls.—Sky-blue, with double stripe of yellow cloth, booted with black leather. The 19th Hussars have yellow embroidery over the pockets; those of the 20th are plain.

Scarf.—Red worsted.‡

The other articles of clothing are the same as for the lancers.

Equipment.

Sword-belt.—Black leather, with sabretasche.

Cross-belt.—Black leather, with a swivel to carry carbine.

Sabretasche.—Black leather, with cipher in gilt metal.

Arms.

Carbine and Sabre.—The 20th Hussars have the Remington carbine; the 19th are armed, experimentally, with the Winchester repeater.

Horse Appointments.

As for Lancers.

The dress and equipment of the independent squadrons is the same as for Chasseurs.

Cavalry Fire Arms.

The Remington carbine, which is the service weapon of the Spanish cavalry, has the same bore and rifling as the infantry rifle (0.4334 in.), and will, if necessary, take the same ammunition. The length of this carbine is 3 ft. 2 ins., and its weight 7 lbs. 3 ozs. It has an initial velocity of 318 metres (1,023 ft.) per second, and is sighted for 200, 400, and 600 metres.

Ammunition.—The ammunition used for the Remington carbine differs from that for the Remington rifle (see page 45) in

* This cipher answers for both regiments "Húsares de la Princesa" and "Húsares de Pavia."

† Trumpeters of the 19th Hussars wear a white dolman, with red braid; those of the 20th, a blue dolman, with yellow braid. Their pelisse is of blue cloth, with white lambskin.

‡ Only worn by 19th Hussars.

having a charge of only 4 grammes (0.14 oz.) of powder, the space in the cartridge case being filled up with raw cotton or cork.*

Revolver.—The revolver for Cavalry Officers is the Smith and Wesson, (see page 45).

Winchester Repeater.—This carbine, which has been experimentally issued to the 19th Hussars, can fire 11 rounds without re-loading, the magazine below the barrel holding 10 cartridges.

ARTILLERY.

Head-dress.—The "Ros," of the same shape as for infantry, but of white felt, with red cord round the upper part. It has a badge in front, with crossed guns, and a brass knob with a small red plume for full dress. Men belonging to the mounted branches have a red cap-line. In barracks a forage cap of blue cloth, of infantry pattern, with red piping, is worn.

Great-coat (Capote).—Dark blue cloth, double-breasted, with red collar and shoulder "wings." A brass grenade is worn on each side of the collar. In the mounted branches a cape is also worn, which goes on over the great-coat.

Tunic (Levita).—Single-breasted, of dark blue cloth, with collar of the same, having a gilt grenade on each side. There is a roll of red cloth on each shoulder.

Jacket.—Plain blue cloth.

Trousers.—Dark blue cloth with broad red stripe. The mounted branches wear booted overalls.

Gaiters.—Blue cloth, reaching to the knee.

The other articles of clothing are the same as those used by the cavalry.

Equipment.

Waist-belt.—White leather, fastening by a plate, on which is the number of the regiment. The sword-bayonet is carried in a frog hanging from the waist-belt.

Cross-belt.—Brown leather, with a black cartridge case.

Knapsack.—Both gunners and drivers have knapsacks; those of the former being fastened to the limber, and those of the latter carried on the off mule.

The other articles of equipment are as for cavalry.

Arms.

Men of the Garrison Artillery are armed with rifles and sword-bayonets. In each field battery there are 12 carbines, and gunners wear sword-bayonets; mounted non-commissioned officers have the cavalry sabre.

Sword-bayonet (Machete).—Length, 1 ft. 10½ ins.; weight, 3½ lbs., carried in a leather scabbard.

* The bullets of carbine cartridges are coloured red to distinguish them from rifle cartridges.

Tools.

The following tools are carried by a battery, whether field or mountain, the number of each being 4 in peace and 6 in war. Spades, axes, mallets, shovels, and mattocks.

ENGINEERS.

Head-dress.—"Ros" of white felt, with red band round top. In front there is a plate of white metal with the regimental badge (a castle) on it, and on top a knob of white metal which holds a small red plume, worn in full dress. Men of the mounted regiment have a red cap-line. In barracks a forage cap of blue cloth, of the infantry pattern, with a red band round the top, is worn.

Great-coat.—Blue cloth, double-breasted, with a red collar on which there are castles of white metal. The shoulder straps are of the same cloth as the coat, but with red edging and point. The buttons are of tin, stamped with castles. Both mounted and dismounted men have a small cape which can be fastened on over the great-coat.

Tunic.—Dark blue cloth, single-breasted, with blue collar, bearing castles. Shoulder straps blue, edged with red, and terminating in red "wings." Buttons as on great-coats.

Jacket.—Plain blue cloth, with seven buttons.

Trousers.—Blue cloth, with double red stripes.

The other articles of dress are the same as for infantry.

Equipment.

Engineers have the collapsible knapsack like infantry.

Waist-belt.—White leather, with plate, on which there is a castle and crossed pickaxes. The belt carries an ammunition pouch, holding 30 rounds, and, as in the infantry, the weight is taken by braces, which are of white leather; there is a frog to carry a "machete," or fascine knife.

Cross-belt.—This is only worn in the mounted regiment. It is of white leather, and carries a black leather pouch, which holds 20 rounds of ammunition.

Mess Tin.—Cylindrical in shape.

Arms.

Sappers and miners are armed like infantry, but men of the mounted regiment have Remington carbines, and the "machete." The carbine is externally slightly different from the cavalry weapon (see page 49), but it takes the same ammunition.

The "machete," or sword-bayonet, is the same as for the artillery.

Horse Appointments.

The horse appointments for the Mounted Regiment are the same as for the cavalry.

SPECIAL CORPS.

The General Staff.

Head-dress.—A cocked hat without plume when dismounted, and with sky-blue plume when mounted, is worn in full dress. In undress a "ros" of white felt, with gold cord at the top, is worn, the badges of rank (see page 66) being on the lower part. A forage cap of the infantry pattern, but with sky-blue piping, is worn in barracks.

Tunic.—Single-breasted, of dark-blue cloth, with gold embroidery on the collar.

Trousers.—Dark blue, with sky-blue stripe.

Scarf (worn round the waist).—Sky-blue silk, with rings of gold, silver, or silk, according to the rank of the wearer.

Cloak.—Dark blue cloth, with sky-blue lining. A water-proof cape is also worn.

Equipment.

Sword-belt.—For mounted duty, black patent leather, with slings, fastening with a hook of yellow metal. For dismounted duty, the sword is worn in a frog of blue cloth, passing through the tunic. A plain black sabretasche is worn in the field.

Arms.

Sword.—For mounted duty, straight, with gilt hilt, and steel scabbard. For dismounted duty, straight, cross-handled rapier, with leather scabbard. The weight of both swords is the same, viz., 1 lb. 6 oz.

Revolver.—(See page 45), worn on waist-belt on the right side when dismounted.

Horse Appointments.

English saddle, with blue cloth valise. Bridle of black leather.

The Garrison Staff and Corps of Secretaries.

Both these corps wear infantry uniform, but with buttons which have on them merely the arms of Spain.

The Royal Halberdiers.

Head-dress.—Three-cornered cocked hat, edged with narrow silver lace.

Coatee (for State occasions).—Dark blue cloth, with red

collar, facings, and lappels, ornamented with silver lace. The skirts have castles and lions of white metal at the extremities. Silver-plated buttons, with the letters R.G.A. and a royal crown on them.

Waistcoat.—The waistcoat worn with the coatee is red, with narrow silver lace on the pocket flaps.

Tunic (for ordinary occasions).—Dark blue cloth, with red collar and cuffs, ornamented with narrow silver lace.

Breeches (for State occasions).—White, worn with large boots reaching half way up the thigh.

Trousers (for ordinary occasions).—Blue cloth.

Cloak.—White cloth, with cape of the same.

Disciplinary Corps.

These corps are dressed and equipped like infantry.

The Carabineros.

Head-dress.—"Ros" of white felt, edged with red, with a red plume. A blue cloth forage cap of the infantry pattern is worn in barracks.*

Tunic.—Single-breasted, of dark blue cloth, with red collar and cuffs, the former having on it the cipher of the corps; plain blue shoulder-straps, with red piping.

Great-coat.—Double-breasted, of dark blue cloth, with plain blue shoulder-straps, edged with red.

Trousers.—Dark blue cloth, with red stripes, booted with black leather for mounted service.

Gaiters.—Black cloth.

The other articles of clothing are the same as for infantry.

Equipment.

Waist-belt.—Black leather, carrying three cartridge cases, and with straps over the shoulders, as in the infantry. One cartridge case in front holds 24 rounds, and each of the others 23, making 70 in all. The rest of the equipment of dismounted men is the same as for infantry. Mounted men carry only two cartridge cases, holding 20 rounds each. The rest of the equipment is similar to that of the cavalry.

Arms.

Rifle.—Carried by a sling of plain leather for dismounted men. Mounted men have carbines.

Bayonet.—As for infantry.

* Those employed on harbour duty wear a black sailor's hat with the letters C.D.E. painted on it in yellow. They wear a jacket instead of a tunic, and have no stripes on the trousers.

The Guardia Civil.

Head-dress.—Three-cornered cocked hat of black felt, with white cotton ornaments, and red cockade. There is a waterproof cover for wet weather, and a white linen one for summer. A blue cloth forage cap, with white cotton rosette, is worn in barracks, &c.

Coatee.—Blue cloth, with red facings. Aiguillettes of white cotton, and at the extremities of the skirts castles and lions.

Tunic.—Double-breasted blue cloth, with red collar and facings. Aiguillette of white cotton, and buttons with the letters G.C.

Great-coat.—Dark blue cloth, with red patch on the collar.

Breeches (for full dress).—White, worn with long blue cloth gaiters, reaching above the knee.

Trousers (for undress).—Blue cloth, without stripe.

Gaiters (for undress).—Grey cloth gaiters, reaching above the knee, are worn in the country, or on service.

Boots (for mounted men).—Long, and soft, reaching above the knee.

Gloves.—Yellow buckskin for mounted men, and white cotton for dismounted.

Arms.

Sword, revolver, and carbine, as for cavalry.

The Corps of Invalids.

Men belonging to this body wear a blue tunic and blue cloth trousers, with red stripe. The other articles of clothing are of the infantry pattern.

The Militia.

The Militia of the Canary Islands are clothed and equipped like Rifles. The provisional battalion only is armed in peace time.

*Local Troops on the African Coast.**The Company of Ceuta Lancers.*

Head-dress.—"Ros" of white felt, with red cord on it, and with a plate in front bearing the arms of Spain, and the initials C. de L. A blue cloth forage cap with red band is also worn.

Tunic.—Short, single-breasted; of dark blue cloth, with red collar and facings.

Jacket.—Dark blue cloth, with red facings.

Trousers.—Grey cloth, with red stripe.

Bournous.—Grey cloth, with red facings.

Equipment.

Waist-belt.—Black leather, fastening with white metal plate, bearing the initials C. de L., and having slings for sword.

The rest of the equipment is the same as for Lancers.

Arms.

Lance and sword.

Horse Appointments.

As for Cavalry of the Line.

The Company of Boatmen.—These men are dressed like Carabineros employed on harbour duty, but have buttons bearing the letters C. de M., and have a red stripe on the trousers.

The sections at the other garrisons are similarly dressed, and have, in addition, the name of the garrison or ship to which they belong, marked on the hat.

RESERVE AND DEPÔT TROOPS.

Infantry are clothed and equipped like line regiments; cavalry like Chasseurs.

MILITARY DEPARTMENTS.

The Intendance Department.

Head-dress.—“Ros” of white felt with red band round top, and the arms of Spain on a shield in front. A red plume is worn in full dress by the men, but officers have a white plume. A blue cloth forage cap, with red piping, is worn in barracks.

Tunic.—Single-breasted, dark blue cloth, with red collar and piping. Officers have twisted silver shoulder cords. The buttons are of white metal stamped with the words “Cuerpo Administrativo del Ejército.” The badge of the department, a sort of leaf pattern, is worn on the collar.

Great-coat.—As for infantry, but with badge and buttons as mentioned above. Officers wear a cloak similar to that of the General Staff.

Equipment and Arms.

As for infantry.

The Medical Department.

Head-dress.—“Ros,” of dark blue felt, edged with gold, with a badge and cockade in front, and a gilt knob and white plume above. A blue cloth forage cap with crimson piping is also worn in hospitals, &c., and Inspectors wear a cocked hat in full dress.

Tunic.—Single-breasted, of dark blue cloth, with crimson facings for surgeons, violet for apothecaries. The buttons have on them a crown and the words "Cuerpo de Sanidad Militar." On the collar of the tunic, officers have two olive branches embroidered in gold.

Trousers.—Dark blue cloth with double stripe, of crimson for surgeons, and of violet for apothecaries. Inspectors wear a double gold stripe on the trousers.

Cloak.—Dark blue cloth, with cape.

The Sanitary Brigade.—Men of the Sanitary Brigade have a "ros" of grey felt, a blue tunic with crimson facings, and red trousers. The great-coat is like that of the infantry, but the buttons have the initials S.M. on them.

The Department of Military Justice and Military Clerks.

Head-dress.—Cocked hat, with gold lace, for full dress, and for undress a "Leopoldina."

Coatee (for full dress).—Dark blue cloth with violet velvet collar, edged with gold.

Tunic.—Single-breasted, of dark blue cloth, with the badge of the department on the collar. The buttons are stamped with the words "Cuerpo Juridico Militar."

Trousers.—Dark blue, with gold or violet stripe, according to whether the wearer is an Auditor or Lieutenant Auditor.

The Chaplains' Department.

Chaplains doing duty in hospitals and in garrisons wear their clerical robes, with a silver medal hung round the neck by a cord. The medal has the arms of Spain and the words "Clero Castrense" on one side, and on the other the cipher of the Sovereign, with a crown. In the field, Chaplains are dressed as follows:—

Head-dress.—Black "Leopoldina," with cockade of the national colours. A round black forage cap with a peak, is also worn.

Tunic.—Single-breasted, of very dark blue cloth, with violet facings. A badge, consisting of crossed branches of olive and laurel, is embroidered in violet silk on each side of the collar.

Trousers.—Very dark blue, with violet stripe.

Gloves.—Black.

The Veterinary Department.

Head-dress.—"Ros" of grey felt, with a white plume for full dress, similar to that worn by Officers of Chasseurs. A forage cap of blue cloth, like that of Chasseurs, is also worn, but with the letters V.M. on it.

Tunic.—Single-breasted, of dark blue cloth, with silver

shoulder cords, having embroidered in silver on the collar the badge of the department—a branch and a serpent. The buttons of the tunic are white, and have on them a sun and the words “Veterinaria Militar.”

Overalls.—Dark blue cloth, booted with black leather.

The other articles of equipment, &c., are the same as for Officers of Cavalry.

The Riding Masters' Department.

Head-dress.—“Ros” like that worn by Veterinary Surgeons.

Tunic.—As for Lancers, but with buttons bearing the words “Equitacion Militar,” and with the letter E embroidered in silver on the collar.

The other articles of dress and equipment are the same as for Officers of Lancers.

CHAPTER XL

ARTILLERY MATÉRIEL.

This may be considered under the following heads:—

- Ordnance.
- Carriages.
- Ammunition and Stores.

Ordnance.

The Ordnance in use consists of rifled and smooth-bore guns, and smooth-bore mortars, the rifled guns being both breech-loading and muzzle-loading. Many of the rifled guns used by the Spanish Army were originally obtained from Krupp's factories, and most of the field guns now produced in the Spanish Arsenals are modifications of the German pattern. There is a tendency, however, to substitute compressed bronze for steel, as the material of construction.

The most important details of the Spanish rifled ordnance for land service will be found in the table which forms Appendix E, but in addition to the guns there enumerated it may be mentioned that a few 300-pr. Parrot guns are mounted in the batteries at Habana.

The following table shows the most important natures of Smooth-bore Ordnance* :—

* For Naval Ordnance, *vide* Chap. XX, page 133.

THE ARMED STRENGTH OF SPAIN.

Designation.	Material.	Weight of piece.		Diameter of bore.	Charge.		Weight of			Remarks.
		Kilogr.	Cwt.		Kilogr.	lbs. oz.	Solid shot.	Common shell.	Case.	
Long 28 cm. gun [C.H.S. 28]	Iron ..	12,300	242.1	28.0	21.6	47 10	kilogr.	kilogr.	kilogr.	Coast defences.
Short 28 cm. gun ..	Iron ..	10,500	206.7	28.0	..	..	..	..	..	Superseded by long 28 cm. gun.
Long 21 cm. howitzer ..	Iron ..	4,370	86.0	21.6	2.5	5 8	..	21.16	85.0	Fortresses.
Long 21 cm. howitzer ..	Bronze	2,922	57.5	21.65	2.76	6 1	..	21.16	85.0	Coast defences.
Short 21 cm. howitzer ..	Bronze	1,295	25.5	21.65	0.92	2 0	..	11.64	18.0	Siege train.
Long 16 cm. howitzer ..	Bronze	969	19.0	16.7	0.92	2 0	..	11.64	18.0	Field service (obsolete).
Long 16 cm. howitzer ..	Iron ..	1,680	32.0	16.7	..	..	..	11.64	18.0	Fortresses and coast defences.
15 cm. gun ..	Bronze	2,900	57.0	15.3	0.85	1 14	..	7.82	12.0	Fortresses.
13 cm. gun ..	Bronze	1,978	39.0	13.4	1.84	4 1	..	7.82	12.0	Fortresses.
Long 12 cm. gun ..	Bronze	1,650	32.4	12.1	1.38	3 0	..	4.00	10.0	Fortresses.
Short 12 cm. gun ..	Bronze	966	19.0	12.1	0.258	0 9	..	4.00	10.0	Fortresses.
Long 10 cm. gun ..	Bronze	1,120	22.0	10.6	..	..	..	2.53	5.5	Fortresses.
Short 10 cm. gun ..	Bronze	644	12.6	10.6	0.23	0 8	..	2.53	5.5	Fortresses.
32 cm. mortar ..	Bronze	1,288	25.3	32.49	5.06	11 2	..	72.00	..	Fortresses, Coast Defences, and siege train.
27 cm. mortar ..	Bronze	874	17.2	27.41	8.45	7 9	..	46.00	..	" " "
16 cm. mortar ..	Bronze	102	2.0	16.69	0.75	1 10	..	11.64	..	" " "
15 cm. mortar ..	Bronze	70	1.37	15.28	0.75	1 10	..	7.82	..	For the Philippines.

NOTE: 1 cm. = 0.3937 inch.
1 kilogr. = 2.2046 lbs. av.

Carriages.

Gun-carriages.—The following table (p. 60) gives the most important details of the latest patterns of travelling carriages.

The axletree seats of the heavier natures of guns rest on balls of vulcanized indiarubber.

Limbers.—The limbers of field guns and of ammunition wagons for Field and Position Batteries are now made of iron. The number of rounds carried is given in the table on page 25. These limbers are fitted with an automatic brake which is brought into action when descending a hill, the carriages running forward on the pole, and thus, by means of a lever, bringing a strain on an iron band which grasps a brake wheel attached to the nave of the limber wheel.*

The limbers for the Siege Train are made of angle-iron without limber boxes, except in the case of the short 12 cm. Bronze M.L. gun, which carries 21 rounds of shell.

Other Artillery Carriages.—For Field Batteries these consist of the Section Wagon, the Catalan Cart, and the Field Forge.

The Section Wagon of the latest pattern is of iron, and consists of a body and limber like an ammunition wagon. It carries horse shoes, nails, and tools, and boxes for the battery books and officers' effects.

The Catalan Cart is a two-wheeled vehicle of the ordinary country pattern, and is used for carrying forage, &c. Its wheels are 1·622 m. (5·3 ft.) in diameter.

The Field Forge consists of a body and limber, the bellows being fixed on the perch in front of the body. Fuel is carried in the limber box, and the back of the body lets down and forms a hearth.

The following carriages are part of the equipment of the Siege Train, viz.:—

Platform Wagons, Sling Wagons, and Trench Carts.

The Platform Wagon has a limber, and its perch is movable, so that with two beams running diagonally under the body of the wagon, a sort of small gyn can be formed, capable of mounting guns of light weight.

The Sling Wagon in use is made of iron, and consists of a body and limber. The weight is raised by means of cog wheels and endless screws. The wheels of the body of the wagon are 2·2 m. (7·2 ft.) in diameter, and the track is 2·0 m. (6·5 ft.).

The Trench Cart is used for bringing up ammunition, and can carry 12 rounds for the 21 cm. howitzer, 24 rounds for the 16 cm. or 15 cm. gun, or 48 rounds for the 14 cm. or 10 cm. gun. This cart is calculated to carry a total weight of from 600 to 1000 kilos. (12 cwt. to 1 ton). It travels on two wheels 1·622 m. (5·3 ft.) in diameter, and has two shafts of hollow steel which are fixed to the axle, and can be reversed so

* This arrangement does not answer for long descents, as the brake wheel becomes too hot. It can be thrown out of gear by means of a key on the footboard of the limber, and then the ordinary shoe is employed.

Nature of gun.	Date of pattern of carriage.	Material of carriage.	Height of axis of bore.	Diam. of wheels.	Track of wheels.	Length of axle.	Carriage allows		Weight of carriage.	Remarks.
							Elevation.	Depression.		
15 cm. B.L. steel gun..	1875	Iron	metres. 1·828	metres. 1·56	metres. 1·63	metres. 1·95	Degrees. 35	Degrees. 10	kiloes. 1500	Siege train. This carriage has been made for the 14 cm. gun, but it is proposed to use it for the others.
16 cm. M.L. bronze gun	1881	Iron	1·9	1·572	—	1·815	—	—	—	
14 cm. B.L. bronze gun		Iron	—	—	—	—	—	—	—	
Long 12 cm. M.L. bronze gun..	1861	Wood	—	1·88	1·5	1·95	—	—	577	Siege train.
21 cm. S.B. bronze howitzer ..		Wood	—	—	1·88	1·5	1·95	—	—	—
Short 12 cm. M.L. bronze gun	1877	Steel	1·08	1·38	1·5	1·913	—	—	—	Position batteries.
10 cm. B.L. bronze gun		Steel	1·08	1·38	1·5	1·913	—	—	—	—
9 cm. B.L. steel gun	1880	Steel	0·97	1·30	1·5	1·86	—	5	427	Field batteries.
9 cm. B.L. comp. bronze gun..		Steel	0·97	1·30	1·5	1·86	—	—	—	—
8 cm. B.L. bronze gun	1876	Iron	0·65	0·90	0·88	1·91	—	—	160	Mountain batteries.
Impd. long 8 cm. B.L. steel gun ..		Iron	0·65	0·90	0·88	1·91	—	—	—	—
Short 8 cm. B.L. steel gun (Plasencia)	1868	Wood	0·775	0·975	0·977	0·977	23	8	95	Mountain batteries (Philippines).
4 cm. Whitworth steel gun		Wood	0·775	0·975	0·977	0·977	0·977	23	8	95

NOTE.—1 metre = 39·37 inch. 1 kilogramme = 2·2046 lb. av.

as to avoid turning the cart round in a narrow trench. The track of the wheels is 1·5 m. (4·9 ft.), and the length of the axle 1·69 m. (5·5 ft.).

For coast and fortress guns, carriages both of iron and wood are used; those for the heavier natures being fitted with hydraulic brakes, compressors, and other means of checking recoil.

The appliances used for mounting ordnance are: Differential pulleys; chain slings; sheers and gyns; capstans and jacks (screw and hydraulic).

Ammunition and Stores.

Powder.—All Spanish gunpowder was formerly composed of—

75 per cent. saltpetre,
12·5 „ charcoal,*
12·5 „ sulphur,

but in 1881 a new description was introduced, which is composed of—

74 per cent. saltpetre,
16 „ charcoal,†
10 „ sulphur.

Both these natures of powder have grains of irregular shape, their size in the first-mentioned being as follows:—

1 mm.‡ for small arms, and bursting charges.
2·5 mm. for muzzle-loading mountain, field and position guns.
5 mm. for siege and fortress guns above 16 cm.

The grain of the new powder varies between 6 mm. and 10 mm., and it is used for all B.L. field-guns of 8 and 9 cm.

For heavy guns (steel, 15 cm., or bronze, 14 cm.), prismatic powder is used.§ The prism is hexagonal (side of hexagon, 2 cm., height of prism, 2·5 cm.), and is pierced by seven small holes parallel to the axis. Another nature of prismatic powder has been tried which differs from the above, merely in having one large hole instead of the seven small ones. This powder has been designed for use in guns with a calibre above 15 cm.

Other Explosives.—These consist of detonating powder, gun-cotton, and dynamite.

Detonating powder is composed of—

13 parts moist fulminate of mercury.
52 parts chlorate of potash.
35 parts sulphuret of antimony.

From this, 78 parts of dry mixture are obtained, and these

* Made from stalks of hemp.

† Made from willow.

‡ 10 mm. = 0·394 inch, or 3 mm. = about $\frac{1}{8}$ inch.

§ Powder in spherical grains of from 10 to 15 mm. has also been used for naval guns.

are amalgamated with 10 parts of glue and 20 of gum arabic, dissolved in 400 parts of distilled water.

Gun-cotton is made by soaking clean cotton wool for 20 minutes in a mixture of 7 parts sulphuric acid and 3 parts nitric acid. Its explosive effect is considered to be three times as great as that of gunpowder. A detonating fuze containing 0.1 to 0.15 gramme of fulminate of mercury is used to explode it.

Dynamite is composed of a mixture of brick-dust, tripoli, or similar substance, with nitro-glycerine. Dynamite is considered to have an explosive effect seven times as great as that of powder. It is exploded by a capsule containing 0.6 gramme fulminating mixture (80 per cent. of fulminate of mercury and 20 per cent. chlorate of potash). The capsule is exploded either by electricity or by means of Bickford's fuze.

If dynamite is used as a bursting charge for shells, the projectile is filled with water and the charge of dynamite placed in it, in a copper tube open at the top. The shell is closed with a percussion fuze.

Projectiles.—For rifled guns the projectiles used are: Common shell, Segment shell, Shrapnel and case.

The weights and bursting charges of common shell are given in Appendix E. Segment shells are only made for guns of 9 cm. and 8 cm. calibre. Segment shells of the former class have 10 rows, with 12 segments in each, and those of the latter have 10 rows of 8 segments.

Shrapnel shells are also only made for guns of 9 cm. and 8 cm.

The 8 cm. shrapnel has a bursting charge of 0.01 kilogramme (0.35 oz.), and contains 90 balls, each weighing 0.011 kilogrammes (0.3528 oz.).

Case shot is only made for rifled guns of 12 cm. calibre and below. The weights are as follows:—

Calibre of gun.	Total weight.		No. of balls.	Weight of each ball.	
	kilos.	lbs.		grammes.	oz.
12 cm.	6.0	13.23	46	115	4
10 cm.	8.0	17.64	48	100	3.5
9 cm.	5.75	12.67	132	28	1
8 cm.	3.34	7.36	48	44	1.5

In addition to these, case shot is supplied for smooth-bore howitzers of 21 cm., and for smooth-bore guns of 16 cm., 15 cm., and 13 cm.

Fuzes.—The fuzes in use are both time and percussion.

There is only one nature of time fuze for all natures of shell. It is made of tin and brass, and screws into the head of the shell. The top of the fuze revolves, and the time for which it is to burn is regulated by adjusting it according to a scale on

the circumference, as in the Armstrong E time fuze, formerly used in our Service. The total period for which this fuze will burn is 20 seconds. The divisions on the scale correspond to variations in range of 50 metres.

The latest pattern of percussion fuze is that of 1880, which is an improved form of the fuze adopted in 1865. This fuze consists of a bronze tube, with a hollow cylindrical striker of soft iron travelling within it. The tube in the striker is filled with powder. In the original fuze the detonator was carried on the head of the striker, which was kept from moving by four wings of thin metal in which it terminated below, projecting through the base of the body of the fuze, and being bent at right angles. By breaking off or bending straight one or more of these wings, the sensitiveness of the fuze on striking could be proportionately increased.

In the new pattern the striker is kept in position by a wire, which is broken by the shock of the discharge, and the detonator, instead of being in the striker, is in a small receptacle, which can be screwed into the head of the fuze when it is required for use.

These fuzes are principally used for shells with studs; for other natures of shell, the pattern used is that of 1868, and a modification of the same. This fuze consists of a body of brass, with a bronze striker carrying a needle, the detonating composition being in the head of the fuze.

In the original fuze the striker was prevented from reaching the detonator by means of a pin, which was driven out by the rotatory motion of the shell. In the modified fuze, the safety-pin is replaced by a spring on either side of the striker. Two classes of springs are used, one opposing a resistance of 20 kilogrammes (44 lbs.), and the other of 10 kilogrammes (22 lbs.). The fuzes, which are fitted with the stronger springs, have the top painted white; those with the weaker springs, red.

Tubes.—A copper friction tube on the English model is used for all classes of ordnance. Its diameter is 5 mm. ($\frac{3}{16}$ in.), and its length 68 mm. (2·7 in.).

An electric tube has been adopted, which is of brass, with a wooden head, holding the wires.

The following combustibles are also in use:—Torches to burn three to four hours; light balls; incendiary barrels; carcasses; fenian fire;* fascines covered with pitch; incendiary shells;† and fire-stone.‡

* Phosphorus dissolved in a substance which evaporates and permits the phosphorus to take fire.

† For M.L. guns of 8, 12, and 16 cm., and for B.L. guns of 8 and 9 cm.

‡ This is a mixture of tallow, turpentine, resin, sulphur, saltpetre, and regulus of antimony. It is run into cylindrical cartridges of pasteboard, which have a paper tube within them to hold priming of fuze composition.

CHAPTER XII.

OFFICERS, NON-COMMISSIONED OFFICERS, PROMOTION, AND DECORATIONS.

The titles of officers in the Spanish Army are as follows:—

Combatants.

Capitan-General	equivalent to	General.
Teniente-General	„	Lieutenant-General.
Mariscal-de-Campo	„	Major-General.
Brigadier	„	Brigadier-General.
Coronel	„	Colonel.
Teniente-Coronel	„	Lieutenant-Colonel.
Comandante	„	Major.
Capitan	„	Captain.
Teniente	„	Lieutenant.
Alferez*	„	Ensign.

Non-Combatants.

Capellan	..	equivalent to	Chaplain.
Médico	..	„	Surgeon.
Profesor Veterinario	„	„	Veterinary Surgeon.
„ de Equitacion	„	„	Riding Master.

Dress and Distinctions of Rank for Generals.

There are three classes of uniform for General Officers:—
Full dress, undress, and field dress.

The dress of a Captain-General is as follows:—

Head-dress.—Helmet, with white plume.

Tunic.—Single-breasted, of dark-blue cloth, with red collar, facings, and cuffs, and with gilt epaulets for full dress. The collar is embroidered with gold, and the cuffs have embroidered on them the peculiar badge of a General Officer, viz., small branches of laurel entwined with three batons. A Captain-General wears three of these badges. The tunic for undress is similar, but with blue collar and cuffs. For field dress, a plain tunic without facings or embroidery is worn.

Pantaloon.—White, worn with long patent leather boots, for mounted duty when in full dress. For undress or field dress, pantaloons of madder-red are worn.

Trousers.—Blue cloth, with gold stripe for dismounted duty when in full dress. For dismounted duty in undress, or in the field, trousers of madder-red, with a double blue stripe, are worn.

Scarf (worn round the waist).—Crimson silk, with gold tassel and three gold rings.

Spurs.—Gilt, and ornamented with chasing.

* The "Alferez-abanderado" is the ensign who carries the colour.

*Baton.**—Malacca cane, with gold top, and with a gold and crimson cord.

Gloves.—White buckskin.

Cloak.—Dark blue cloth, with red facings, having embroidered in gold on the shoulder cords a baton and sword crossed.

The dress of a Lieutenant-General is similar, but he only wears two of the gold badges mentioned above, and two gold rings on the scarf.

A Major-General, similarly, has one gold badge and one gold ring on the scarf.

A Brigadier's uniform is exactly the same as that of a Major-General, except that all the lace, badges, &c., are of silver, instead of gold.

Dress of Regimental Officers.

Regimental officers wear a uniform similar to that of their men, with the following additions or variations.

Infantry and Rifles.—When in full dress, officers wear gold cord on the "Ros," and those who belong to the Regimental Staff have white plumes instead of red. Officers' tunics have gold shoulder cords, and when on duty a gorget of gilt metal is worn.

The arms carried by officers are sword and revolver: the latter worn in a case on the waist-belt at the right side, and secured by a gold cord passing round the neck.

For ordinary use on foot, a light straight sword like a rapier is worn in a frog on the waist-belt, but in the field or for mounted duty there is a heavier sword carried by slings. Officers' belts are black for ordinary use, and red and gold for full dress.

Cavalry.—Officers of Lancers have feather plumes to their helmets instead of horsehair, and their ornaments are gilt. In the Hussars the dolman is ornamented with gold cord, and in the 20th Hussars the scarf worn by officers is of silk and gold.

Artillery.—In the Field Artillery officers carry field glasses in a case on the cross-belt. They have gold cord on the upper part of the "Ros," and gilt grenades on the collar of the tunic. They are armed like Infantry officers.

Engineers.—Officers doing regimental duty wear the "Ros" like the men, but with silver ornaments and feather plumes.†

On detached duty a "Leopoldina" is worn, and officers of the Director-General's Department, and those employed in the Engineer Academy and on Engineer Staff, wear the cocked hat. The belts are of black patent leather, as in the Infantry, and officers carry sword and revolver.

* Carried by all Generals and Brigadiers, whether on mounted or dismounted duty.

† Officers belonging to the Regimental Staff wear white plumes, the remainder red plumes.

Distinctions of Rank.

The distinctions of rank for Regimental Officers are as follows:—

Colonels.—On head-dress three rows of gold lace, and on each cuff three bands of gold lace and three gold stars.

Lieutenant-Colonels.—On head-dress two rows of gold lace, and on each cuff two bands of gold lace and two gold stars.

Majors.—On head-dress one row of gold lace and one of silver lace, and on each cuff a band of gold lace and another of silver lace, with a gold star and a silver star.

Captains.—On head-dress three rows of narrow gold lace; on each sleeve a triple chevron of gold lace, spreading from the point of the shoulder at an angle of 60°, and with three gold stars within the angle of the chevron.

Lieutenants.—As for Captains, but with two rows of lace and two stars.

Ensigns.—As for Captains, but with one row of lace and one star.

Officers who have brevet rank retain on the head-dress the distinctive marks of their substantive rank, but wear on the sleeve the lace and stars corresponding to their brevet rank.

Where, however, the superior rank is only honorary (see page 69), the officer only wears on the sleeve the lace corresponding to the higher rank, and retains the stars of his substantive rank.

When an officer has both brevet and honorary rank, the lace on the sleeve would indicate his honorary rank, the stars his brevet rank, and the lace on the head-dress his regimental rank.

Officers belong to one of the following classes, viz. :—

“ Empleado ”	..	On the Active List.
“ De Asamblea ”	..	Unattached (Generals and Brigadiers).
“ De Reserva ”	..	On the Retired List (Generals and Brigadiers).
“ De Re-emplazo ”	..	Unattached (Regimental officers).
“ De Cuartel ”	..	On Half Pay.

Leave of Absence.

Officers are granted leave of absence by the Captain-General commanding the District, unless they desire to leave the kingdom, when the permission of the Sovereign must be obtained.

Under ordinary circumstances one field officer and five regimental officers per battalion may be on leave. The longest period for which leave of absence is given is two months, with an extension for two months more, but when on ordinary leave an officer only draws half pay, and any extension of his leave is without pay.

Officers on sick leave are allowed full pay, but during an extension can only draw half pay.

Officers belonging to the Colonial Army have to obtain the King's permission to return home on private affairs, but sick leave can be granted as follows :—

From Cuba and Puerto Rico	} Four months, and two months' extension.
From the Philip- pines	

Supply of Officers for the Colonial Army.

Officers belonging to the Home Army can volunteer for service in the Colonial Army, but if a sufficient number do not volunteer, the vacancies are filled by lot. Officers in each rank who have held that rank for two years or more take part in the lot drawing, and all those who join the Colonial Army receive a step of rank. The regular tour of service in the Colonial Army is six years, and the step of rank thus given is not made permanent unless the officer serves abroad for the whole of this period. On his return he rejoins the Home Army, and after serving with it for three years may again proceed to the Colonial Army, receiving another step of rank under the same conditions as before.

Number of Officers in the Spanish Army.

The number of General Officers was fixed at 264 by orders of the 27th May, 1879, but the actual number on the Active List in 1881 amounted to 7 Captain-Generals, 69 Lieutenant-Generals, 104 Major-Generals, and 280 Brigadiers, or a total of 460. This number is to be gradually reduced to the fixed establishment by the operation of the rules for compulsory retirement, under which Generals retire at 68 and Brigadiers at 66.

The following table shows the number of Regimental, Staff, and Departmental officers on the 1st January, 1881 :—

Corps.	Colonels.	Lieutenant- Colonels.	Majors.	Captains.	Lieutenants.	Ensigns.	Total.
Infantry	227	427	1,440	2,916	3,611	3,606	12,227
Cavalry	73	108	300	559	694	603	2,337
Artillery	48	71	77	228	288	..	657
Engineers	25	36	52	110	62	..	285
General Staff	18	19	36	60	27	..	160
Garrison Staff	9	26	55	104	103	75	377
Guardia Civil	16	29	54	202	342	165	808
Carabineros	6	21	33	112	278	141	591
Intendance	25	51	150	196	248	85	756
Medical Department	18	23	78	248	191	..	558
Riding Masters .. .. .	..	1	4	22	31	36	94
Veterinary Surgeons .. .. .	..	1	2	54	80	95	232
Total	466	818	2,281	4,806	5,910	4,807	19,082

NON-COMMISSIONED OFFICERS.

The titles of non-commissioned officers in the Spanish Army are as follows:—

Sargento Primero Superior	} equivalent to	{	Regimental Sergeant-Major.
Sargento Primero			Battery Sergeant-Major or Colour-Sergeant.
Sargento Segundo	”	”	Sergeant.
Cabo Primero	”	”	Corporal.
Cabo Segundo	”	”	2nd Corporal.

There are also the following titles:—

Maestro de Cornetas	equivalent to	Sergeant-Bugler.
Maestro de Trompetas	”	Sergeant-Trumpeter.
Armero	”	Armourer-Sergeant.
Musico Mayor	”	Band-Sergeant.
Maestro Sillero	”	Saddler-Sergeant.

The distinctions of rank for non-commissioned officers are as follows:—

Regimental Sergeant-Major.—Gold* chevron on sleeve as for an Ensign, but without a star.

Colour Sergeant.—A triple gold stripe on each arm, sewn diagonally across the lower part of the sleeve.

Sergeant.—Double gold stripes, similarly worn.

Corporal.—Triple stripes of red worsted, similarly worn.

2nd Corporal.—Double stripes of red worsted, similarly worn.

Soldiers of the 1st Class are distinguished by a single chevron of red worsted, worn point downwards on the lower part of the left arm. Artificers have a similar chevron on the upper part of the arm.

PROMOTION.

Promotion is given by seniority, and also for good service in war.

Privates become non-commissioned officers in the first instance by selection, and afterwards their promotion is by seniority. In the Infantry one-third of the commissioned officers are promoted from the ranks, and two-thirds are furnished by the Toledo Infantry Academy.†

In the Cavalry a similar rule is followed, but in the Artillery and Engineers the rank of officer is only given to Cadets who pass through the academies at Segovia and Guadalajara respectively.

Promotion of Officers.—In the different branches of the service the promotion of officers is strictly by seniority, but there is an extensive system of brevet promotion.

* In the Engineers all classes of sergeants have silver chevrons.

† See page 114.

This brevet promotion is of two natures, viz., Army rank, as in our service, and honorary rank.

The former is only given to officers (under the rank of Colonel) of the Artillery, Engineers, Staff, and Departments* of the Army, and enables the holder to command a body of mixed troops by reason of his seniority in the Army, regardless of his regimental standing.

Honorary rank may be given to officers of any branch of the service. This reward gives the holder no immediate privileges of any kind, but on his being promoted to the substantive rank which he has thus held by brevet, his commission in this rank is antedated, and he takes seniority from the date of his honorary rank.

The manner in which the badges corresponding to brevet rank are worn has been explained at page 66.

MILITARY DECORATIONS.

In Spain there are two purely military orders, viz. :—

The Order of San Fernando,
The Order of San Hermenegildo,

and two which are conferred on military men and civilians, viz. :—

The Order of Carlos III,
The Order of Isabel the Catholic.

The Order of San Fernando has five classes, of which the 1st and 3rd are given for "distinguished," and the 2nd and 4th for "heroic" actions to the different ranks, as shown below. The 5th class is only given for an heroic action on the part of a General in command of a Division or larger body of troops.

Pensions are attached at the following annual rates, those of the 2nd, 4th, and 5th classes being transferable to the widows,† children, or parents of the person on whom it has been conferred.

* In this case relative rank.

† In the Spanish Army there is no restriction on the marriage of officers. Non-commissioned officers and men are not allowed to marry unless they have served for four years.

Rank.	Classes of the Order.				
	1st.	2nd.	3rd.	4th.	5th or Grand Cross.
	Pesetas.	Pesetas.	Pesetas.	Pesetas.	Pesetas.
Corporals and Privates ..	100*	400	..	..	..
Sergeants	150	600	..	..	..
Ensigns and Lieutenants ..	250	1,000	..	..	..
Captains	375	1,500	..	..	..
Majors, Lieut.-Colonels, and Colonels	500	2,000	..	..	..
Brigadiers .. ..	..	..	625	2,500	..
Generals .. ..	..	..	750	3,000	6,000
Captains-General .. ..	..	..	..	..	10,000†

The ribbon of the Order of San Fernando is red, with narrow orange edging.

The Order of San Hermenegildo is given for long service, and consists of three categories, viz. :—The Cross; the Star; and the Grand Cross. Twenty-five years' service (of which five as an officer) is the necessary qualification for the Cross, 35 (of which 20 as an officer) for the Star, and 40 (all as an officer) for the Grand Cross.

Those who have held the various categories of the order for eight years are entitled to the following pensions :—For the Cross, 600 pesetas a-year; for the Star, 1,200 pesetas; and for the Grand Cross, 2,500.†

The ribbon of the Order of San Hermenegildo has a crimson centre, a white band on either side, and a narrow crimson edging.

The Order of Carlos III is composed of four classes, viz., Grand Cross, Knight Commander of limited number, Ordinary Knight Commander, and Cross of Order. To these pensions at the rate of 750, 400, 375, and 250 pesetas are attached respectively.

The ribbon of the Order of Carlos III has a white centre with blue on each side.

The Order of Isabel the Catholic is as a rule conferred on those who have done good service in the Spanish Colonies. The classes and pensions of this Order are identical with those of the Order of Carlos III.

The ribbon of the Order of Isabel the Catholic has a white centre with a black band on either side, and a narrow white edging.

The Silver Cross of Military Merit is of two classes, viz., red, worn on a red ribbon with white centre, and white, worn on a white ribbon with red centre; the former being given for

* £4.

† £400.

‡ In consequence of the condition of the Spanish Treasury these pensions have been temporarily reduced to 375, 637, and 1,500 pesetas respectively.

services rendered when under arms, the latter for civil services. When given to non-commissioned officers and privates, the ordinary pension attached to it is 2·50 pesetas (2s.) per month; but in special cases this is raised to 7·50 (6s.).

In addition to the above, the Cross of Maria Isabel Luisa and the old Silver Cross of San Fernando may be mentioned; but both these have been suppressed, and few holders of these decorations now remain.

The following military orders have been instituted by King Alfonso XII:—

The Military Order of Santiago,
 " " Calatrava,
 " " Alcántara,
 " " Montesa.

These orders, however, are only military in name, and have no special connection with the Spanish Army.

CHAPTER XIII.

PAY, ALLOWANCES, RATIONS, AND PENSIONS.

The following are the rates of pay for officers in the Spanish Army:

Ordinary Pay.

Rank.	Annual.		Daily.		
	Pesetas.	£	Pesetas and centimos.	£	s. d.
Captain-General and General-in-Chief of an Army	30,000	1,200	83 33	3	6 8
Captain-General of a District ..	25,000	1,000	69 44	2	15 6
Lieut.-General on the Active List and Directors-General of the different arms, &c.	22,500	900	62 50	2	10 0
Lieut.-General unattached	16,875	675	46 87	1	17 8
Lieut.-General on the Retired List	12,500	500	34 72	1	7 9
Major-General on the Active List, and officers 2nd in command of military districts.	15,000	600	41 66	1	13 4
Major-General unattached.	11,250	450	31 25	1	5 0
" on the Retired List	10,000	400	27 77	1	2 3
Brigadier on the Active List	9,000	360	25 00	1	0 0
Colonels of all arms	6,900	276	19 16	0	15 4
Lieut.-Colonel	5,400	216	15 00	0	12 0
Major	4,800	192	13 33	0	10 8
Captain of mounted corps	3,600	144	10 00	0	8 0
" dismounted corps	3,000	120	8 33	0	6 8
Lieutenant and Adjutant of mounted corps	2,700	108	7 50	0	6 0
Lieutenant of mounted corps	2,400	96	6 66	0	5 4
" dismounted corps	2,250	90	6 25	0	5 0
Ensign of mounted corps	2,100	84	5 83	0	4 8½
" dismounted corps	1,950	78	5 41	0	4 4

Officers of the General Staff and Aides-de-Camp draw the same pay as cavalry officers of corresponding rank. Those who belong to the Garrison Staff draw Infantry pay.

Officers of the Reserve and Depôt Corps draw four-fifths of the regular pay of their rank, except when employed in recruiting, when they draw full pay.

Engineer officials are paid at the following annual rates:—

	Pesetas.	£	s.
1st Class Clerk of Works	2,500	100	0
2nd " "	1,750	70	0
3rd " "	1,000	40	0
1st Class Overseers of fortifications ..	3,000	120	0
2nd " "	2,250	90	0
3rd " "	1,990	79	12

Command Pay.

This is issued at the following rates:—

Rank.	Annual.		Monthly.	
	Pesetas.	£ s. d.	Pesetas and centimos.	£ s. d.
Brigadier in command	1,000	40 0 0	83 33	3 6 8
Colonel Commanding Discipline Regiment of Ceuta	1,875	75 0 0	156 25	6 5 0
Colonel commanding a regiment of infantry or cavalry, or employed on the Staff or in Artillery or Engineers	1,500	60 0 0	125 00	5 0 0
Lieut.-Colonel commanding battalion of Rifles	999	39 19 2	83 25	3 6 7½
Colonel commanding half brigade not embodied, or Lieut.-Colonel commanding reserve or depôt battalion	750	30 0 0	62 50	2 10 0
Lieut.-Colonel of Cavalry in charge of Government stud	600	24 0 0	50 00	2 0 0
Lieut.-Colonel of Cavalry commanding reserve cadre	420	16 16 0	35 00	1 8 0
Lieut.-Colonel of Battalion of Canary Islands Militia	168	6 14 6	14 00	0 11 3

The daily rates of pay for non-commissioned officers and men are as follows:—

PAY, ALLOWANCES, RATIONS, AND PENSIONS.

Corps.	Sergeant-Major.		Sergeant.		1st Corporal.		2nd Corporal.		Private.			
	Pescetas and centimos.		Pescetas and centimos.		Centimos.		Centimos.		Re-engaged.		Ordinary.	
	s. d.	Centimos.	s. d.	Centimos.	s. d.	Centimos.	s. d.	Centimos.	Centimos.	s. d.	Centimos.	s. d.
Infantry ..	1 88	0 91	1 2½	0 8½	0 83	0 8	0 76	0 7½	0 73	0 7	0 73	0 7
	1 88	0 95	1 2½	0 9	0 87	0 8½	0 79	0 7½	0 76	0 7½	0 76	0 7½
	1 88	..	..	..	..	..	..	..	..	..	0 73	0 7
Cavalry ..	1 94	0 97	1 3	0 9½	0 89	0 8½	0 82	0 8	0 79	0 7½	0 79	0 7½
	1 95	0 98	1 3	0 9½	0 89	0 8½	0 88	0 8	0 79	0 7½	0 79	0 7½
	1 89	0 96	1 2½	0 9	0 87	0 8½	0 80	0 7½	0 77	0 7½	0 77	0 7½
Artillery ..	1 96	0 99	1 3½	0 9½	0 91	0 8½	0 84	0 8	0 81	0 7½	0 81	0 7½
	1 89	0 96	1 2½	0 9	0 87	0 8½	0 80	0 7½	0 77	0 7½	0 77	0 7½
Engineers ..	1 96	0 99	1 3½	0 9½	0 91	0 8½	0 84	0 8	0 81	0 7½	0 81	0 7½
	1 89	0 96	1 2½	0 9	0 87	0 8½	0 80	0 7½	0 77	0 7½	0 77	0 7½

Private soldiers receive 10 centimos (1*d.*) daily, and non-commissioned officers an additional amount in proportion to their pay. The balance, after paying 40 centimos a-day for messing, goes to form a fund for keeping up the man's kit. All accounts are made up and signed once a quarter.

The daily rates of pay in the Carabineros and Guardia Civil are as follows:—

Rank.	Carabineros.			Guardia Civil.		
	Pesetas & centimos.	£	s. d.	Pesetas & centimos.	£	s. d.
Colonel	20 83	0 16	8	25 00	1 0	0
Lieutenant-Colonel	16 66	0 13	4	20 83	0 16	8
Major	19 33	0 15	5½	19 33	0 15	5½
Captain	10 55	0 8	5½	10 55*	0 8	5½
Lieutenant	7 91	0 6	4	8 05†	0 6	5½
Ensign	7 08	0 5	8	7 08‡	0 5	8
Sergeant-Major {	Mounted ..	3 25	0 2 7	3 58	0 2	10½
	Dismounted ..	2 63	0 2 1½				2 96	0 2	4½
Sergeant .. {	Mounted ..	3 01	0 2 4½	3 34	0 2	8
	Dismounted ..	2 51	0 2 0				2 84	0 2	3½
1st Corporal .. {	Mounted ..	2 69	0 2 1½	3 22	0 2	6½
	Dismounted ..	2 39	0 1 10½			
2nd Corporal .. {	Mounted ..	2 77	0 2 2½	3 11	0 2	5½
	Dismounted ..	2 27	0 1 9½				2 61	0 2	1
Privates .. {	Mounted ..	2 53	0 2 0½	3 00	0 2	4½
	Dismounted ..	2 03	0 1 7½				2 49	0 2	0
Do. 2nd Class {	Mounted ..	..	..	2 91	0 2	3½
	Dismounted ..	..	..				2 36	0 1	10½

In the Carabineros all officers and mounted men receive in addition a monthly allowance of 38·02 pesetas (£1 10*s.* 5*d.*) for the maintenance of each horse kept.

Carabineros are not entitled to a ration of bread, but men of the Guardia Civil have this advantage, and may draw a money allowance in lieu.

Re-engaged Pay.

The money obtained by the purchase of exemption from active military service§ is devoted to giving bounties to men who re-engage. Such men must re-engage for a period of not less than one year and not more than four years. The bounty is given them in two instalments as follows:—

* If dismissed, 9·16 pesetas (7*s.* 3½*d.*)

† If dismissed, 7·56 pesetas (6*s.* 0½*d.*)

‡ If dismissed, 6·66 pesetas (5*s.* 3½*d.*)

§ See page 11.

	1st Instalment.	2nd Instalment.	Total.
	Pesetas.	Pesetas.	Pesetas.
On re-engaging for 1 year	50	75	125
„ for 2 years	75	175	250
„ for 3 years	100	325	425
„ for 4 years	125	475	600

Half the first instalment is paid when the man re-engages, and the other half six months later. The last instalment is paid on completion of the period.

In the colonial army the bounties given on re-engaging are double those mentioned above.

Pay of Military Departments.

The annual pay of departmental officers in the Home Army is as follows :—

Rank and Department.	Pesetas.	£
Army Intendant and 1st Class Inspector (Medical)	15,000	600
Divisional Intendant, 2nd Class Inspector (Medical) and Auditor-General of the Army	9,000	360
Sub-Intendant, 1st Class Sub-Inspector (Medical) and District Auditor	6,900	276
1st Class Commissary of War, 2nd Class Sub-Inspector (Medical), and 1st Class Lieutenant-Auditor	5,400	216
2nd Class Commissary of War, Surgeon-Major, and 2nd Class Lieutenant-Auditor	4,800	192
Chief Professor (Veterinary or Equitation)	4,500	180
Instructor (Veterinary or Equitation), Auditor-General (Military Justice Department), and Senior Chaplain	4,000	160
1st Class Veterinary Professor and 1st Class Riding Master	3,600	144
1st Class Intendance Official, 1st Class Surgeon, 3rd Class Lieutenant-Auditor, and 1st Class Chaplain	3,000	120
2nd Class Surgeon or Apothecary, 2nd Class Veterinary or Riding Master, and 2nd Class Chaplain	2,600	104
Assistant, Military Justice Department	2,500	100
2nd Class Intendance Official	2,250	90
3rd Class Veterinary or Riding Master, and 3rd Class Chaplain	2,100	84
3rd Class Intendance Official and Medical Student	1,950	78

ALLOWANCES.

Clothing Fund Allowance.

The annual allowance to the Clothing Fund (Prendas Mayores*) for each man on the establishment is as follows :—

* The articles forming the "Prendas mayores" are the "Bos," great-coat, tunic, knapsack, havresack, belts, and pouches.

Corps.	Pesetas and centimos.	s. d.
Infantry of the Line, Rifles, Sanitary Brigade	15 48	12 4½
Artillery: Workmen and Dismounted Engineers	18 00	14 5
Chasseurs, Independent Squadrons, Reserve Cavalry ..	20 52	16 5
Field and Mountain Artillery, Mounted Engineers, Remount and Stud Establishments, and Central Cavalry Establishment	21 72	17 4½
Hussars	22 92	18 4
Carabineros { Dismounted	15 00	12 0
{ Mounted	18 00	14 5

Regimental Necessaries Allowance (Entretienimiento General)

The annual allowance towards Regimental Necessaries for each man on the establishment is as follows:—

Corps.	Pesetas and centimos.	£ s. d.
Infantry, Rifles	4 56	0 3 8
Artillery, Workmen, and Dismounted Engineers, } Sanitary Brigade, &c.		
All Mounted Corps	6 00	0 4 9½
Royal Escort	12 00	0 9 7
For each Horse or Mule in Institutions.. .. .	30 00	1 4 0

Remount Allowance.

An annual allowance for the purchase of Remounts is issued on the following scale:—

Corps.	Pesetas and centimos.	£ s. d.
To Officers of the General Staff and Aides-de-Camp ..	150 00	6 0 0
To Field Officers of Infantry, Garrison Artillery and Engineers, and to Mounted Officers of the Intend- ance and Medical Department*	100 00	4 0 0
For each Horse and Mule of Artillery, Engineers, or Cavalry ridden by men in the ranks	99 96	4 0 0
Ditto in Guardia Civil	135 00	5 8 0

Saddlery Allowance.

This amounts annually to 12·92 pesetas (10s. 4d.) for each mounted man in all mounted corps.

* The arrangements for chargers of Officers of Cavalry and Field Artillery have been given in Chaps. IV and V.

Harness Allowance.

Corps.	Annual.		
	Pesetas.	£ s. d.	
For each Battery of Field or Mountain Artillery	} According to strength of establishment.		
For each Company of Sappers		510	20 8 0
" " Miners		425	17 0 0
" " Pontooners		1,250	50 0 0
" Telegraph Company		1,900	76 0 0
" Railway Company		432	17 5 7

Equipment Allowance.

Corps.	Annual.	
	Pesetas.	£ s. d.
Battalions of Infantry of Line or Garrison Artillery ..	750	30 0 0
Battalions of Rifles	600	24 0 0
Reserve and Depôt Battalions	675	27 0 0
Regiments of Cavalry and Artillery (Field and Mountain) and Battalions of Engineers)	1,050	42 0 0

Band Allowance.

Corps.	Annual.	
	Pesetas.	£ s. d.
Regiments of Infantry of the Line, Artillery, or Engineers	480	19 4 0
Battalions of Rifles	360	14 8 0

Field Allowance.

This is issued at the following rates :—

Rank.	Monthly.		Daily.		
	Pesetas.	£	Pesetas and centimos.	£ s. d.	
<i>Staff of an Army.</i>					
General-in-Chief	2,500	100	83 33	3 6 8	
Chief of the Staff {	Lieut.-General	750	30	25 00	1 0 0
	Major-General	500	20	16 66	0 13 4
	Brigadier ..	250	10	8 33	0 6 8
Assistant to Chief of the Staff {	Colonel ..	200	8	6 66	0 5 4
	Brigadier ..	250	10	8 33	3 6 8
	Colonel or other Field Officer	125	5	4 16	0 3 4
Commanding Artillery or Engineers	Lieut.-General	750	30	25 00	1 0 0
	Major-General	375	15	12 50	0 10 0
	Brigadier ..	250	10	8 33	0 6 8
	Colonel or other Field Officer	125	5	4 16	0 3 4
<i>Staff of an Army Corps.</i>					
Commander of Army Corps {	Capt.-General	2,500	100	83 33	3 6 8
	Lieut.-General	750	30	25 00	1 0 0
	Major-General	625	25	20 83	0 16 8
Chief of the Staff {	Brigadier ..	200	8	6 66	0 5 4
	Colonel ..	125	5	4 16	0 3 4
Commanding Artillery or Engineers	Brigadier ..	200	8	6 66	0 5 4
	Colonel or other Field Officer	125	5	4 16	0 3 4
<i>Commanding a Division.</i>					
Lieut.-General	625	25	20 83	0 16 8	
Major-General	500	20	16 66	0 13 4	
<i>Commanding a Brigade.</i>					
Brigadier	200	8	6 66	0 5 4	
Colonel	125	5	4 16	0 3 4	
<i>General Officers Attached.</i>					
Lieut.-General or Major-General..	200	8	6 66	0 5 4	
Brigadier	125	5	4 16	0 3 4	

Regimental officers, non-commissioned officers, and men receive Field Allowance (plus) at the following rates:—

Rank.	Monthly.		Daily.	
	Pesetas.	£ s. d.	Pesetas and centimos.	s. d.
Field Officers (Colonel to Major)..	60	2 8 0	2 00	1 7½
Captains	40	1 12 8	1 33	1 1
Lieutenants and Ensigns	30	1 4 0	1 00	0 9½
Sergeants-Major and Sergeants ..	..	..	0 50	0 5
All other soldiers .. .. .	..	..	0 25	0 2½

Rations.

In time of peace bread forms the staple food of the Spanish soldier, and is generally issued from a Government bakery, each ration forming a small loaf.* When biscuit is issued instead of bread, three biscuits form the ration. The weight of the daily ration is as follows :—

		Grammes.	lbs.	oz.
Bread	..	700	1	8·7
Biscuit	..	500	1	1·6

The remainder of the food for the Spanish soldier is purchased from a fund to which each man contributes 40 centimos daily, except in the case of the garrisons of the fortresses in Africa, where rations in kind are issued on the following scales :—

			Approximate English equivalent.
Ordinary.			
Bacon	..	100·0 grammes.	3½ oz.
Rice or peas	..	100·0 "	3½ oz.
Beans	..	100·0 "	3½ oz.
Ground pepper	..	0·5 "	½ oz.
Salt	..	0·5 "	½ oz.
Wine	..	250·0 millilitres.	½ pint.
For fast days.			
Rice or peas	..	200·0 grammes.	7 oz.
Beans	..	200·0 "	7 oz.
Pepper	..	0·5 "	¼ oz.
Salt	..	0·5 "	½ oz.
Garlic	..	0·3 "	½ oz.
Oil.	..	50·0 millilitres.	1½ pint.
Vinegar	..	50·0 "	1½ pint.
Wine	..	250·0 "	½ pint.

Under ordinary circumstances the Spanish soldier has two warm meals daily—at about 9 A.M. and 5 P.M.—and also, in some corps, he is supplied with coffee or soup in the early morning. In every barrack there is a canteen which is kept by a civilian, but the scale of prices is regulated by a regimental committee.

In the field the scale of rations is according to one of the following classes :—

* Where there is no Government bakery, troops are supplied by contract; and at places where there is only a very small detachment of troops, bread of second quality is purchased for them in the market.

Class.	Meat.	Rice.	Peas.	Kidney beans.	Broad beans.	Dried Cod.	Oil.	Bacon.	Potatoes.	Salt.
	grams.	grams.	grams.	grams.	grams.	grams.	m. litres.	grams.	grams.	grams.
1	500	..	..	..	..	..	..	..	..	8
2	250	200	..	..	..	..	..	..	..	8
3	250	..	200	..	..	..	..	..	..	8
	250	..	..	250	..	..	..	..	..	8
4	250	..	..	..	250	..	..	..	..	8
	..	100	..	..	..	250	50	..	..	..
5	..	..	..	200	..	250	50	..	..	..
	..	200	..	..	..	200	50	..	..	..
6	..	..	200	..	..	200	50	..	..	..
6A*	..	..	..	250	..	200	50	..	..	..
7	..	..	..	330	..	270	60	..	..	..
	..	..	..	..	250	..	..	100	..	8
8	..	200	..	..	..	..	..	100	..	8
8A*	..	260	..	..	..	..	..	140	..	8
	..	..	260	..	..	..	..	140	..	8
9	250	..	..	..	..	..	..	50	500	8
10	..	..	..	..	..	250	100	..	500	..

NOTE.—8 grammes = $\frac{1}{4}$ oz. nearly. 50 millilitres = $\frac{1}{4}$ pint.
 50 " = $1\frac{1}{4}$ oz. 60 " = $\frac{1}{5}$ " "
 60 " = 2 oz. 100 " = $\frac{1}{6}$ " "
 100 " = $3\frac{1}{2}$ oz.
 140 " = 5 oz.
 200 " = 7 oz.
 250 " = 9 oz.
 260 " = $9\frac{1}{4}$ oz.
 270 " = $9\frac{1}{2}$ oz.
 330 " = 12 oz.
 500 " = 1 lb. $1\frac{1}{4}$ oz.

The rations of wine, spirits, and coffee in the field are as follows:—

Wine	..	..	..	500 millilitres	$\frac{1}{2}$ pint.
Brandy	..	..	..	50 "	$\frac{1}{12}$ "
Coffee	{	Coffee	..	10 grammes	$\frac{1}{3}$ ounce.
		Sugar	..	20 "	$\frac{1}{3}$ "

Billets.

Troops when billeted have to be supplied with bed, light, water, vinegar, salt, and fuel. Troops are not to be billeted on the inhabitants for any length of time, unless they have been sent in search of criminals.

Forage.

Forage is issued in kind, the rations being either ordinary or extraordinary. The common food, both of horses and mules, consists of barley and chopped straw,† and is issued on the following scale:—

* Increased rations issued in 1874 to Army operating against Carlists.

† This is not generally "chopped," but is obtained by treading out the corn on

					English equivalent.
Barley	{ Ordinary ration	6·9375 litres, or 4 kilos.;	$\frac{1}{4}$ peck, or	9 lbs.	
	{ Extraordinary ration ..	9·25 " or 5·3 "	1 " or 12 "		
Straw.	{ Ordinary ration	6·0 kilogrammes	13 lbs.		
	{ Extraordinary ration ..	8·75 " "	19 lbs.		

Where other natures of forage are issued instead of the above, the rations are as follows :—

	Instead of barley.									
	Oats.		Carob beans.		Rye.		Maize.		Beans.	
	kilogr.	lbs.	kilogr.	lbs.	kilogr.	lbs.	kilogr.	lbs.	kilogr.	lbs.
Ordinary ration ..	5	11	6	13	4	9	4	9	3	6 $\frac{1}{2}$
Extraordinary ration	8	17 $\frac{1}{2}$	8	17 $\frac{1}{2}$	5	11	5	11	4	9

	Instead of straw.						Hay and straw in addition to barley.			
	Hay.		Dry grass.		Green grass.		Hay.		Straw.	
	kilogr.	lbs.	kilogr.	lbs.	kilogr.	lbs.	kilogr.	lbs.	kilogr.	lbs.
Ordinary ration ..	5	11	12	26	18	39 $\frac{1}{2}$	4	9	4	9
Extraordinary ration	7	15	18	39 $\frac{1}{2}$	27	60	5	11	4	9

Extraordinary rations of barley, or the equivalent, are only issued to the following :—

Horses of the Royal Escort Squadron in peace and war.
 Draught or riding animals of the Artillery when in the field or on the march.

Extraordinary rations of straw at all times to—

Horses of the Royal Escort Squadron.
 Draught and pack mules of all corps.

Officers are entitled to draw forage rations in time of peace according to the following scale* :—

Minister of War ..	..	..	..	..	4
Directors-General of different Arms ..	..	..	..	..	3

a threshing floor. The straw, which in Spain is extremely dry and brittle, is thus broken up into very small pieces, and is given to the animals without further treatment. It has very trifling nutritive properties, but is valuable in filling the animals' bellies.

* Generals or unattached officers entitled to forage, may draw the value of their forage rations in cash, less a deduction of 10 per cent.

Captains-General of the Army	4
" " of a District	3
Officers Second in command of a District ..	2
Generals Commanding a Division	2
Major-Generals in Command	2
Brigadiers or Colonels of the General Staff ..	2
Other Officers of the General Staff	1
Officers Commanding Artillery or Engineers..	1
Aide-de-Camp*	1
Colonel, Lieut.-Colonel, or Major of Infantry, Garrison Artillery, or Dismounted Engineers	1
Colonels of Regiments of Cavalry, Field or Mountain Artillery, and Mounted Engineers	2
Other Field and Regimental Officers of Cavalry, Field or Mountain Artillery, and Mounted Engineers	1

In the field, rations and forage are drawn according to the following scale:—

Rank.	Rations of bread.	Rations of meat, &c.	Rations of forage.
<i>Staff.</i>			
General in Chief†	12	12	12
General Commanding a Division { Lieut.-General	5	6	4
{ Major-General	4	4	4
{ Brigadier	3	3	3
Chief of the Staff { Lieut.-General	6	6	5
{ Major-General	5	4	4
Commanding the Artillery or { Lieut.-General	5	6	5
Engineers { Major-General	4	4	4
{ Brigadier	3	3	3
{ Colonel	3	3	2
Commanding a Brigade.. .. . { Brigadier	3	3	3
{ Colonel	3	3	2
Officers of the General Staff .. { Brigadier or Colonel	4	3	2
{ Lieut.-Col. or Major	3	2	2
{ Capt. or Subaltern	2	2	2
{ Colonel	4	3	2
Aides-de-Camp { Lieut.-Col., Major,	3	2	2
{ or Captain			
{ Subaltern	2	2	2
Auditor-General or Vicar-General	2	2	1
<i>Generals.</i>			
Lieutenant-General, on duty	5	6	3
Major-General,	4	4	3
Brigadier	3	3	2

* Aides-de-camp to the King draw forage for three horses if they are Generals, and for two if Colonels or Lieutenant-Colonels.

† The number of rations here given is the minimum; a General in Command being permitted to draw as many as he requires.

Rank.	Rations of bread.	Rations of meat, &c.	Rations of forage.
<i>Infantry.</i>			
Colonel	2	3	1
Lieutenant-Colonel or Major .. .	2	2	1
Captain .. .	2	2	..
Lieutenant, Sub-Lieutenant, or Ensign .. .	1	2	..
Adjutant, Standard-bearer, or Chaplain	1	2	1
<i>Cavalry and Artillery.</i>			
Colonel	3	3	2
Lieutenant-Colonel or Major .. .	2	2	2
Captain	2	2	1
Subaltern	1	2	1
Chaplain, Surgeon, Veterinary Surgeon, or Riding Master	1	2	1
<i>Engineers.</i>			
Colonel	6	3	6*
Lieutenant-Colonel	4	2	4
Major	3	2	3
Captain	3	2	2
Lieutenant	2	2	2
Ensign	2	2	1
<i>Intendance Department.</i>			
1st Class Intendant (head of department)	3	3	2
2nd "	2	3	2
Commissary of War	2	2	1
1st Class official	2	2	1
2nd or 3rd Class official	1	2	1
<i>Medical Department.</i>			
Inspector	3	3	2
Sub-Inspector	2	3	2
Surgeon-Major	2	2	2
1st Class Surgeons	2	2	1
2nd "	1	2	1

The rations of bread and of forage given in the above table are issued free, but the value of the meat ration supplied to an officer is deducted from his pay. The drawing of this class of ration is however optional.

If necessary, the general in command can reduce the number of rations which officers are entitled to draw.

Fuel and Light.

In time of peace these are supplied at the following daily rates:—

* These rations only apply to Engineer officers of dismounted branch when employed on special duty away from their corps.

		Grammes.	lbs.
Fuel..	{ Charcoal for cooking, per man of Establishment ..	110	0½
	{ Wood, in lieu, if charcoal cannot be obtained..	700	1½

		Summer.*		Winter.	
		Millilitres.	Pint.	Millilitres.	Pint.
Light	{ Oil for men of any arm, numbering from 1 to 20 persons	100	·176	120	·2112
	{ For each man above 20 ..	5	·0088	6	·0106
	{ For stables holding from 1 to 14 horses or mules	126	·222	154	·271
	{ For each horse or mule above 14	9	·0158	11	·0194

Fuel and light are also issued for officers and men's guard-rooms.

In the field fuel and light are issued daily as follows :—

	Charcoal.		Wood in lieu.	
	Kilogrammes.	lbs. oz.	Kilogrammes.	lbs.
<i>Fuel for Cooking.</i>				
General in Chief	8	17 8	50	110
General Officers	5	11 0	28	62
Field Officers	2	4 6	14	31
Captains and Subalterns..	1	2 3	7	15½
Per man in the ranks ..	0·110	0 4	0·700	1½
<i>Fuel for Heating.†</i>				
Per tent‡ occupied by officers	7	15 5	15	33
Per man in the ranks ..	0·460	1 0	1	2½

* 1st April to 30th September.

† This issue is only made in winter, and on the written order of the General in Command.

‡ The capacity of the different natures of tents is laid down as follows :—

	Officers.		Men.	
	Minimum.	Maximum.	Minimum.	Maximum.
Marquee	6	12	30	40
Bell tent {	No. 1	4	8	16
	„ 2	2	4	10
	„ 3	1	2	4
Moorish tent	2	4	10	16
Large tent (doble cañonera) ..	2	4	10	16
Tente d'abri : a man to each sheet.				

	Summer.		Winter.	
	Millilitres.	Pint.	Millilitres.	Pint.
<i>Light.</i>				
Daily ration of oil per officer's tent ..	100	$\frac{1}{8}$	120	$\frac{1}{8}$
" " per lantern for external lighting. }	160	$\frac{1}{4}$	190	$\frac{1}{8}$

Straw for Bivouacks.

This is issued in the following quantities:—

	If long.		If short.	
	Kilogrammes.	lbs.	Kilogrammes.	lbs.
For each field or other officer ..	10	22	12	26½
Per man in the ranks ..	8	17½	10	22

The straw is changed every 40 days. It is not issued to officers who have supplied themselves with a field bed.

PENSIONS.

Pensions may be classed as retiring annuities and pensions for wounds received in action.

Officers may be placed on the retired list for the following reasons:—(a.) On reaching the regulated age. (b.) For physical infirmity. (c.) At their own request. (d.) On having their promotion stopped for three years consecutively, through the want of the necessary qualification. (e.) For misconduct, or considerations of the public interest.

In the General Staff, Infantry, Cavalry, Artillery, and Engineers, Guardia Civil, and Carabineros, officers up to and including the rank of Colonel are put on the retired list at the following ages:—

Ensigns and Lieutenants	at	51
Captains	"	56
Majors and Lieutenant-Colonels	"	60
Colonels	"	62

In the Garrison Staff, Captains and Subalterns are retired at 60 years of age, and Field Officers at 64, and in the Army Departments officials are retired at 60 years of age, if they have the relative rank of Captains or Subalterns, at 62 if they rank with Majors or Lieutenant-Colonels, at 64 if with Colonels, at 66 if with General Officers.

Officers who are placed on the retired list, receive annuities

varying between 30 per cent. of their pay (after 20 years' service) and 90 per cent. (after 35 years' service) : the pay on which the annuity is calculated being as a rule that of the last rank in which the officer completed two years' service.

In the case of officers compulsorily retired on account of age as shown above, this regulation is modified, and the condition of having been two years in the rank is not necessary to obtain the annuity corresponding to it.

The maximum annuity is limited to 10,000 pesetas (£400).

Pensions are granted to all ranks for wounds received in action, and to the widows or children of those who are killed in action or die of their wounds, or who die of Asiatic cholera.

These pensions are granted at the following annual rates:—

Rank.	Pensions for wounds which incapacitate for further service.		Pensions for total loss of sight, or loss of a limb when on active service.		Pensions to widows and children of those killed in action, or who die of their wounds or of cholera.	
	Pesetas.	£ s. d.	Pesetas and centimos.	£ s. d.	Pesetas and centimos.	£ s. d.
Colonel ..	6,900	276 0 0	8,000 0	320 0 0	2,372 50	94 18 0
Lieut.-Colonel ..	5,400	216 0 0	6,250 0	250 0 0	1,825 0	73 0 0
Major ..	4,800	192 0 0	5,550 0	220 0 0	1,642 50	65 14 0
Captain ..	3,000	120 0 0	3,750 0	150 0 0	1,277 50	51 2 0
Lieutenant ..	2,250	90 0 0	2,000 0	80 0 0	821 25	32 17 0
Ensign..	1,950	78 0 0	1,650 0	66 0 0	638 75	25 11 0
Sergeant-Major	300	12 0 0	912 50	36 10 0	547 50	21 18 0
Sergeant ..	300	12 0 0	638 75	25 11 0	365 0	14 12 0
Corporal ..	270	10 16 0	501 75	20 1 5	273 75	10 19 0
Private ..	270	10 16 0	456 25	18 5 0	182 50	7 6 0

CHAPTER XIV.

THE COLONIAL ARMY.

The army maintained for duty in the Spanish Colonies is a distinct body from the Home or Peninsular Army, and consists of the Divisions of Cuba, Puerto Rico, and the Philippines.

It is recruited by voluntary enlistment, supplemented by conscription, under the conditions mentioned in Chapter III, the contingent required for foreign service being assembled at the depôts of Valladolid, Santander, Cadiz, and Barcelona, and drafts sent abroad each autumn.

CUBA.

The army of Cuba consists* of Infantry, Cavalry, Artillery,

* By General Orders of 11th May, 1881.

Engineers, and Special Corps, with a force of Militia and Volunteers.

Infantry.—This arm is composed as follows :—

- 8 Regiments, each of two battalions.
- 8 Battalions of Rifles.
- 1 Legion of St. Catherine.
- 2 Battalions of Sharpshooters.*

The Infantry Regiments of Cuba are distinguished by the following titles :—

1st Regiment	..	..	..	Rey.
2nd "	..	..	..	Reina.
3rd "	..	..	..	Corona.
4th "	..	..	..	Nápoles.
5th "	..	..	..	España.
6th "	..	..	..	Habana.
7th "	..	..	..	Cuba.
8th "	..	..	..	Tarragona.

Rifle Battalions are distinguished as follows :—

1st Battalion	..	..	..	Bailen.
2nd "	..	..	..	Union.
3rd "	..	..	..	Isabel II.
4th "	..	..	..	Talavera.
5th "	..	..	..	Chiclana.
6th "	..	..	..	Baza.
7th "	..	..	..	Borbon.
8th "	..	..	..	St. Quintin.

The two Battalions of Sharpshooters are distinguished as follows :—

1st	..	..	..	Cuba.
2nd	..	..	..	Bayamo.

The establishment of an Infantry Regiment is as follows :—

- 1 Colonel.
- 2 Lieutenant-Colonels.†
- 4 Majors.†
- 2 Adjutants (Captains).
- 2 Paymasters.
- 12 Captains.
- 24 Lieutenants.
- 24 Ensigns.
- 2 Ensigns to carry the colours.
- 2 Surgeons.
- 2 Chaplains.
- 2 Bandmasters.
- 220 Non-commissioned Officers and Regimental Staff.
- 1178 Rank and file.

* Each of these battalions has one company mounted.

† One Lieutenant-Colonel and two Majors to each battalion, as in the Home Army.

The establishment of a Battalion of Rifles is nearly the same as that of a line battalion: there being 38 officers, 119 non-commissioned officers and Regimental Staff, and 682 rank and file.

All battalions have six companies.

Cavalry.—The Cavalry force in Cuba consists of—

- 2 Regiments of Chasseurs.
- 8 Independent Squadrons of Tirailleurs.
- 1 Remount Squadron.
- 2 Divisions of Mounted Riflemen.
- 1 Squadron of Cuban Volunteers.

The establishment of a Cavalry Regiment is as follows:—

- 1 Colonel.
- 1 Lieutenant-Colonel.
- 3 Majors.
- 4 Captains (Regimental Staff).
- 4 Adjutants (Lieutenants).
- 4 Squadron Leaders (Captains).
- 12 Lieutenants.
- 8 Cornets.
- 1 Paymaster (Lieutenant).
- 1 Chaplain.
- 1 Surgeon.
- 4 Veterinary Surgeons.
- 1 Riding Master.
- 104 Non-commissioned Officers and Regimental Staff.
- 498 Rank and file, with
- 400 Troop Horses.

The establishment of each division (*tercio*) of mounted riflemen is as follows:—

- 4 Field Officers.
- 5 Captains (one of whom is Paymaster).
- 4 Lieutenants and Adjutants.
- 1 Lieutenant-Quartermaster.
- 12 Lieutenants.
- 8 Ensigns.
- 1 Senior Surgeon.
- 4 Veterinary Surgeons.
- 1 Armourer.
- 1 Saddler.
- 4 Sergeant-Majors.
- 14 Sergeants.
- 4 Trumpeters (N.C.O.'s).
- 16 Trumpeters.
- 32 Corporals.
- 32 2nd Corporals.
- 366 Troopers.
- 400 Horses.

The superior officers of the Mounted Riflemen are taken half from the Infantry and half from the Cavalry. Of the junior officers, half are furnished from the Infantry, one-third from the Cavalry, and one-sixth from the irregular corps which formerly existed.

Artillery.—There are in Cuba

- 1 Regiment Garrison Artillery (2 Battalions).
- 1 Mountain Battery.
- 1 Company of Workmen.

The Regiment of Garrison Artillery has the same establishment as a Regiment of the Home Army on the peace establishment (*vide* Appendix B, Table III), except that there are 32 subalterns, 24 sergeants, and 800 gunners. Each battalion has four companies.

The Mountain Battery has 4 guns, with 4 horses and 30 mules. The personnel is as follows:—

- 1 Captain.
- 3 Subalterns.
- 1 Veterinary Surgeon.
- 1 Sergeant-Major.
- 2 Sergeants.
- 2 Trumpeters.
- 7 Corporals.
- 6 2nd Corporals.
- 3 Farriers.
- 3 Other Artificers.
- 92 Gunners.

Engineers.—One regiment of two battalions is maintained in Cuba. The Regimental Staff consists of—

- 1 Colonel.
- 1 Armourer.
- 1 Bandmaster.
- 40 Musicians.
- 1 Band Sergeant.
- 1 Shoemaker.

Each battalion has a staff of—

- 1 Lieutenant-Colonel.
- 2 Majors.
- 4 Other Officers.
- 1 Surgeon.
- 1 Chaplain.
- 1 Trumpeter.

In each battalion there are four companies, the establishment of a company being—

- 1 Captain.
- 4 Subalterns.
- 1 Sergeant-Major.

5 Sergeants.
 6 Corporals.
 6 2nd Corporals.
 3 Trumpeters.
 4 1st Class } Privates,
 101 2nd Class }

with 8 mules, making a total of 57 officers and 1,054 non-commissioned officers and men.

In addition to the above companies there is a *Depôt Company* and a *Telegraph Company*, and 3 companies of coloured *Engineer Militia* are attached, as well as 3 companies of coloured workmen.

Special Corps.—These consist of—

1 Battalion of Clerks and Servants
 1 Disciplinary Brigade.
 1 Cavalry Transport Brigade.
 1 Brigade of Workmen.
 1 Sanitary Brigade.

The strength of these corps is given in Appendix D, Table II.

There are also of *Guardia Civil* 1,700 dismounted and 75 mounted, besides a volunteer squadron of 125 men.

It has been proposed to form military colonies in Cuba composed of officers and men whose term of service has expired. Married men would be selected, and they would receive grants of land, in return for which they would be liable for military service.

The militia force of Cuba is as follows:—

Militia.—The *White Infantry Militia Regiment of Habana*. This has a staff consisting of—

1 Colonel.
 2 Lieutenant-Colonels.
 2 Majors.
 2 Adjutants.
 2 Ensigns to carry colours.

The regiment consists of two battalions each of six companies.

Coloured Militia.—

1st Battalion	..	..	España.
2nd "	..	..	Habana.
3rd "	..	..	Matanzas.

Each has a staff consisting of—

1 Major
 1 Lieutenant-Adjutant.
 1 Ensign to carry the colours.

Cavalry Militia—

The Habana Regiment.
 The Matanzas Regiment.
 The Guines Regiment.
 The San Antonio Regiment.

Volunteers.—There are nine Infantry Volunteer Battalions and a battalion of Engineers, two battalions of Artillery, and a mounted brigade of Artillery, a Cavalry Regiment, a squadron of Hussars, and a Guide Company of the Captain-General.

Military Departments.

In Cuba the Intendance Department has an establishment of—

1 Divisional Intendant.
 2 Sub-Intendants.
 6 1st Class Commissaries of War.
 29 2nd " "
 85 1st Class Officials. "
 34 2nd " "

with a brigade of workmen 200 strong.

The Medical Department has the following establishment:—

Medical Branch—

1 2nd Class Inspector.
 1 1st Class Sub-Inspector.
 2 2nd " "
 40 Surgeon-Majors.
 120 1st Class Surgeons.

Apothecaries Branch—

3 Apothecaries-Major.
 16 1st Class Apothecaries,

with a Sanitary Brigade, 400 strong, under the orders of a 2nd Class Sub-Inspector.

There are 16 hospitals in the island, established at Habana, Santa Clara, Trinidad, Sancti-Spiritus, Remedios, Puerto Principe, Ciego del Avila, Holguin, Bayamo, Santiago de Cuba, Manzanillo, Mayari-abajo, Guantánamo, Baracoa, Gibara and Puerto-Padre.

Clothing and Equipment.

Infantry, whether Regular or White Militia, wear a dress of cotton drill, with a straw hat which has a cockade of the national colours. The blouse which replaces the tunic is blue, and the trousers are brown. A cotton cloak is worn in the field. Coloured Militia wear a dress of blue and white cotton drill.

Equipment.—The waist-belt is black, and has braces passing over the shoulders to take the weight of the pouches. There are two of these, each holding 50 cartridges. For field service a bag of Russian leather is carried on the shoulders instead of a knapsack.

The Guardia Civil.—Men of this corps wear a round hat, with tunic and trousers of striped blue and white cotton drill.

For mounted duty they have long boots, and carry a straight sword, which, for dismounted duty, is replaced by the short, broad machete.

Their belts are of buckskin, coloured yellow; they have a cartridge pouch holding 40 rounds, and for mounted duty a sabretasche, havresack, and wine flask.

Pay.

The pay of troops serving in Cuba is given on page 96.

PUERTO RICO.

The forces maintained in Puerto Rico consist of Infantry, Cavalry, Artillery, and special corps of the regular army.

Infantry.—The Infantry in Puerto Rico is as follows:—

1st Battalion	..	..	Valladolid
2nd „	..	..	Cadiz.
3rd „	..	..	Madrid.
The Vieques Disciplinary Company.			

Each of the battalions mentioned above has six companies, the establishment being similar to that of a battalion of rifles of Cuba.

The Vieques Disciplinary Company has the following permanent establishment:—

- 1 Lieutenant-Colonel, who is Commandant of the Island.
- 1 Major.
- 1 Captain (who is Staff Officer).
- 1 Surgeon.
- 1 Chaplain.
- 1 Armourer.

Cavalry.—The Cavalry force maintained in Puerto Rico consists of a section of “Chasseurs of Puerto Rico,” who act as escort to the Captain-General. The establishment of this force is—

- 1 Sergeant-Major.
- 1 Trumpeter.
- 1 Corporal.
- 8 Rank and file.

Artillery.—One battalion of four companies is maintained, one company being a mountain company, and a section being

workmen. The mountain company have small Whitworth guns with a special pack-saddle, &c., suited to the ponies of the Island. The guns were captured from the Carlists.

A Colonel is in command of the Artillery, with a Major as sub-director of the Artillery park.

The battalion is commanded by a Lieutenant-Colonel.

Engineers.—The Engineer Staff consists of a Colonel, a Lieutenant-Colonel, a Major, and four Captains.

Special Corps.—A mixed Tercio of the Guardia Civil is maintained in Puerto Rico under the command of a Colonel as sub-director. It consists of three companies of Infantry and two squadrons distributed in the two districts of Puerto Rico and Ponce.

Military Departments.

The Intendance Department has the following establishment:—

1	Sub-Intendant.
1	1st Class Commissary of War.
2	2nd " "
5	1st Class Officials.
5	2nd " "

The Medical Department has the following establishment:—

1	2nd Class Sub-Inspector.
1	Surgeon-Major.
8	1st Class Surgeons.
1	1st Class Apothecary.

Clothing and Equipment.

The dress and equipment of the troops in Puerto Rico is the same as for Cuba.

Pay.

The pay of troops serving in Puerto Rico is given at page 96.

THE PHILIPPINE ISLANDS.

The Captain-General of the Philippines has a body-guard of the following strength:—

1	Lieutenant,	4	Corporals,
1	Sergeant.	20	Rank and file of the Artillery.

The Infantry consists of seven regiments of natives, each of one battalion of six companies, with a strength of 750 men, as shown in Appendix B, Table I. The officers and some of the non-commissioned officers are Europeans.

The regiments are distinguished as follows:—

1st Regiment	..	..	España.
2nd	”	..	Iberia.
3rd	”	..	Magallanes.
4th	”	..	Mindanao.
5th	”	..	Visayas.
6th	”	..	Joló.
7th	”	..	Manila.

Cavalry.—The Cavalry force consists of a squadron of Lancers with 150 horses.

The establishment is as follows:—

1 major,* 3 captains, 6 subalterns, 1 surgeon, 1 veterinary surgeon, 1 sergeant-major, 9 other European non-commissioned officers, 10 native non-commissioned officers, 4 trumpeters, 126 native troopers, and 6 artificers.

Artillery.—The Artillery force in the Philippines consists of a European Regiment of two battalions. Each battalion has six companies, the 6th in each case being a mountain company. There is in addition a company of workmen.

The establishment of the battalion staff is the same as that given on page 20, but each company has a total strength of 127 men. The mountain batteries have 4 Officers and 147 non-commissioned officers and men, with 48 pack horses and 7 riding horses. They are armed with six Whitworth guns of 4·5 cm.

Engineers.—The force of Engineers in the Philippines consists of a battalion of four companies of natives, 570 strong, in peace.

Its war establishment is as follows:—

1 Lieutenant-Colonel.
 1 Major.
 5 Captains.
 1 Lieutenant-Adjutant.
 8 Lieutenants.
 8 Ensigns.
 1 Surgeon.
 1 Armourer.
 4 Sergeants-Major.
 12 Sergeants.
 80 Corporals.
 9 Buglers.
 896 Rank and file,

or a total of 25 Officers and 1,002 non-commissioned officers and men.

The Officers and most of the non-commissioned officers are recruited from regiments in the Peninsula. Half the subalterns are Infantry Officers.

* It appears actually to be commanded by a Lieutenant-Colonel with a Major second in command.

Special Corps.

The corps of Carabineros now maintained in the Philippines has taken the place of the Land and Sea Customs Guards which formerly existed.

The present force is about 1,800 strong, and has a regular military organization. It is distributed as follows:—

District of Manila	..	..	4 companies.
” Pampanga	..	..	3 ”
” Batangas	..	..	3 ”
” Iloilo	..	..	2 ”

The first-mentioned district is commanded by a Lieutenant-Colonel, the others by Majors.

Guardia Civil.—Three tercios, each of eight companies, are maintained in the Philippines, as well as a veteran section.

Each tercio is about 1,000 strong, and is commanded by a Colonel, with a Lieutenant-Colonel as second in command.

The district of each tercio is divided into three sub-districts, and each of these is placed in charge of a Major.

Military Departments.

The Intendance Department in the Philippines has the following establishment:—

- 1 Army Intendant.
- 1 Sub-Intendant.
- 1 1st Class Commissary of War.
- 6 2nd Class Commissaries of War.
- 12 1st Class Officials.
- 16 2nd ” ”

The Medical Department has the following establishment:—

- 1 2nd Class Inspector.
- 1 1st Class Sub-Inspector.
- 2 2nd Class Sub-Inspectors.
- 7 Surgeons-Major.
- 1 Apothecary-Major.
- 4 1st Class Apothecaries.

*Clothing and Equipment.**Infantry (Native).—*

Head-dress: White helmet, with red plume in addition for full dress. This helmet has a waterproof cover for wet weather.

Tunic and Trousers: White cotton drill, with red facings and stripes for full dress, and for undress a cotton blouse. In wet weather a woollen cloak is worn.

Cavalry.—Full dress like the Infantry, except that a cap line is worn, and that the shape of the shoulder-straps is different.

Artillery.—Like the Infantry, but bearing the emblem of the corps instead of the regimental number.

Engineers.—Like the Infantry, but with the badge and buttons of the corps. The ordinary dress is a blouse and trousers of drill, with red facings.

Guardia Civil.—Like the Infantry, but with cotton cords (aiguillettes) from breast to right shoulder.

Pay of the Colonial Army.

The annual rates of pay in the Colonial Army are as follows:—

Rank.	Dollars.	£	s.	d.
<i>Staff.</i>				
Captain-General of Cuba	50,000·00	10,000	0	0
" " Puerto Rico	20,000·00	4,000	0	0
" " the Philippines	40,000·00	8,000	0	0
Lieutenant-General (on active list)	11,250·00	2,250	0	0
Major-General	7,500·00	1,500	0	0
Brigadier	4,500·00	900	0	0
Colonel of the General Staff	3,450·00	690	0	0
Lieutenant-Colonel	2,700·00	540	0	0
Major	2,400·00	480	0	0
Captain	1,950·00	390	0	0
<i>Regimental.</i>				
Colonel	3,450·00	690	0	0
Lieutenant-Colonel	2,700·00	540	0	0
Major	2,400·00	480	0	0
Major of Militia of Cuba	1,920·00	384	0	0
Captain of Mountain Artillery (Cuba)	1,950·00	390	0	0
Captain of Cavalry	1,800·00	360	0	0
Captain of other Arms	1,500·00	300	0	0
Adjutant	1,500·00	300	0	0
Lieutenant of Mountain Artillery (Cuba)	1,275·00	255	0	0
Lieutenant of Cavalry	1,200·00	240	0	0
Lieutenant of other Arms	1,125·00	225	0	0
Lieutenant of Militia	900·00	180	0	0
Ensign of Cavalry or Mountain Artillery (Cuba)	1,050·00	210	0	0
Ensign of Garrison Artillery (Cuba)	1,005·00	201	0	0
Ensign of other Arms	975·00	195	0	0
<i>Non-Commissioned Officers and Men.</i>				
Sergeant-Major of Infantry or Garrison Artillery ..	819·68	63	18	10
Sergeant-Major of Cavalry, Mountain Artillery, or Engineers	833·00	66	12	0
Sergeant of Infantry, Garrison Artillery, or Engi- neers	257·18	51	8	10
Sergeant of Mountain Artillery	288·00	57	12	0
" Cavalry	282·00	56	8	9

Rank.	Dollars.	£ s. d.
<i>Non-Commissioned Officers and Men.</i>		
Corporal of Infantry	172·25	36 9 0
" Rifles or Cavalry	185·25	37 1 0
" Garrison Artillery or Engineers..	189·57	37 18 4
" Mountain Artillery	201·67	40 6 4
2nd Corporal of Infantry	157·66	31 10 3
" Rifles or Cavalry	169·65	33 18 8
" Garrison Artillery	174·00	34 16 0
" Mountain Artillery	192·00	38 8 0
" Engineers	184·20	36 16 10
Private of Infantry or White Militia of Cuba	144·00	28 16 0
" Rifles or Cavalry	156·00	31 4 0
Gunner of Garrison Artillery	160·25	32 1 0
" Mountain Artillery	172·22	34 8 11
Private of Engineers, 1st Class	184·20	36 16 10
" " 2nd Class	160·20	32 0 10

Native troops receive about one-third less pay than Europeans of corresponding rank.

Military Departments.

The annual pay of Departmental officers in the Colonial Army is as follows:—

Rank and Department.	Dollars.	£
Army Intendant	7,500	1,500
Divisional Intendant, 2nd Class Inspector (Medical) and Auditor-General of the Army	4,500	900
Sub-Intendant, 1st Class Sub-Inspector (Medical) and District Auditor	3,450	690
1st Class Commissary of War, 2nd Class Sub-Inspector (Medical), and 1st Class Lieutenant-Auditor	2,700	540
2nd Class Commissary of War, Surgeon or Apothecary Major, 2nd Class Lieutenant-Auditor	2,400	480
1st Class Intendance Official, 1st Class Surgeon or Apothecary, and 3rd Class Lieutenant-Auditor	1,500	300
2nd Class Intendance Official	1,125	225
3rd Class " "	825	165

Allowances.

The scales for the various allowances for equipment, &c., vary somewhat in the three divisions of the Colonial Army. With the exception of the Clothing Allowance they are, as a rule, about three times as high as the corresponding allowances of the Home Army, given at page 76.

CHAPTER XV.

ARMY ADMINISTRATION IN PEACE AND WAR.

The King is the head of the Army, the official business being conducted by the Minister of War.

The Minister of War is assisted by the Supreme Council of the Army and Navy, a body consisting of a President (a Captain-General or Lieutenant-General), seven military or naval members (Generals or Admirals), three legal, and two financial members, with a Brigadier as Secretary.

This body, though under the Minister of War, can communicate direct with the Minister of Marine on subjects relating to the Navy.

The Higher Council of War.

This body consists of a President (a Captain-General) and three elected members (Lieutenants-General), with the following *ex officio* members:—The President of the Council of Recruiting, the Commander of the Royal Halberdiers, the Directors and Inspectors-General of the different arms and Departments of the Army, and the second in command of the Corps of Invalids.

In case of war, or for matters of great importance, the Captains-General of the Army can be summoned as *ex officio* members, as well as any Lieutenants-General selected by the Government. In such a case the senior Captain-General present sits as President.

The Council for the Administration of the Benevolent Fund.

This Council consists of a Captain-General as President, and thirteen members, and is entrusted with the duty of superintending the education of orphans of officers of the Army and Navy who were killed in action or died of wounds received during the civil wars.

The business of the office is divided into two sections, one for the Peninsula, the other for the Colonies.

A college for boys is established at Guadalajara, the girls being placed in the nunnery of the Holy Family.

The Council of Exemption.

This Council is composed of a President (a Lieutenant-General) and nine members. Its duty is to administer the funds derived from the contributions of those who purchase exemption from active military service (see page 11).

These funds are expended in providing bounties for men

who engage—or re-engage—to take the places of those who have thus purchased exemption (see page 74).

By the Report for the year 1881 it appears that the balance in the hands of the Council amounted to 23,634,674·86 pesetas (£945,388), in addition to a sum of 24,354,487·88 pesetas (£974,180), which had been borrowed by the Government and by the Corporation of Madrid.

Military Divisions of the Kingdom.

For administrative purposes, Spain is divided into 14 Captaincies-General, each of which comprises a number of military governments or commands.*

The Colonial territories of Cuba, Puerto Rico, and the Philippines are under three additional Captains-General, and Ceuta forms an independent "General Command."

The post of Captain-General of a District is usually held by a Lieutenant-General in the Army, who in most cases has a Major-General as second in command. The latter officer exercises the functions of Military Governor of the most important province in the Captaincy-General, and of its chief town, the other Military Governors being Brigadiers, Colonels, or Majors, and the Military Commanders being Majors or Captains.

Each Captain-General, besides his personal Staff, has a Chief of the Staff and a certain number of other officers of the General Staff, according to the amount of work in the District. There are also on the Staff of each District a Major-General or Brigadier of Artillery, and another of Engineers. These officers are styled "Commandant-General Sub-Inspectors," and can communicate direct with the Director-General of their respective arms. They command the troops of the Artillery or Engineers within the District, and all men employed in arsenals, parks, factories, &c.

In each fortress or fortified post there is similarly an Artillery Commandant and an Engineer Commandant.

THE DIRECTORS-GENERAL.

Each arm of the Service has at its head a Director-General, who exercises a general supervision over all matters relating to his own arm, as shown below.

The Director-General of Infantry.

The office of Director-General of Infantry is held by a Lieutenant-General, who has a Brigadier as Secretary. There is a Secretary's office and 14 other offices, as shown below, each being under a Field Officer, who has from two to seven other officers to assist him.

* See Appendix A.

	Secretary's office.	Correspondence.
	1st office.	Organization, Reviews, States, Interior Economy.
2nd	„	Field Officers.
3rd	„	Other Officers.
4th	„	Academies and Schools.
5th	„	Rank and File.
6th	„	Re-engaging and Pensions.
7th	„	Lists of Officers; Miscellaneous Subjects.
8th	„	Records of Service.
9th	„	Crosses of San Hermenegildo, Retiring Allowances, Debts.
10th	„	Infantry in the Colonies.
11th	„	Accounts.
12th	„	Clothing, Arms, Equipment, Utensils, Bands.
13th	„	Rewards, Surgeons, Chaplains.
14th	„	Printing, and the "Memorial de Infanteria."

There are also a Central Pay Office and an Archives Office.

The Director-General of Cavalry.

This post is held by a Lieutenant-General, with a Brigadier as Secretary, and the business is divided into four principal sections, viz. :—

	1st section.	Officers.
	2nd „	Men.
	3rd „	Horses.
	4th „	Material and Accounts.

Each section is subdivided into two or more offices as follows:—

	1st section:	1st office.	Promotions; retirements; decorations, &c.
	„	2nd office.	Cavalry Academy; judicial proceedings, transfers, debts, &c.
2nd	„	1st office.	Conscription and allotment of recruits; transfers; reserve men, &c.
	„	2nd office.	Riding schools; promotions; justice; statistics; desertions; re-engagements.
3rd	„	1st office.	Remounts; purchase of young horses; statistics; Government studs; horse-breeding generally.
	„	2nd office.	Allotment of horses to corps; officers' chargers; casting; training depôts.
	„	3rd office.	Inventories; stores and accounts of Remount and Stud Establishments.
4th	„	1st office.	Examination of accounts.
	„	2nd office.	Pay.
	„	3rd office.	Clothing, arms, and saddlery.

There is also an Archives Office.

The Director-General of Artillery.

This post is held by a Lieutenant-General, with a Brigadier as Secretary, the work being divided as follows:—

- Secretariat : Organisation of the corps ; officers ; promotion ; Artillery in the Colonial Army ; records, inspections, &c.
- 1st section. The Artillery Academy ; retirements of men ; rewards ; decorations ; horse-breeding and remounts.
- 2nd „ 1st office. Organisation and accounts of the different regiments ; paymasters ; quartermasters ; surgeons ; chaplains ; marriage of soldiers ; clothing and equipment of Artillery of Colonial Army.
- „ „ 2nd office. Re-engagements ; records of service ; detached duties ; rough riders and veterinaries.
- 3rd „ 1st office. Inventions ; experiments ; work and estimates for manufacturing establishments.
- „ „ 2nd office. Small arms and ammunition ; distribution of these to the parks ; supply of stores to fortresses and parks ; repair of matériel ; libraries ; stores ; schools of gunnery and salutes.
- „ „ 3rd office. Accounts relating to stores ; accounts with Intendance and Treasury ; contracts for the purchase of warlike stores ; materials for manufacturing departments and for their transport : sales of obsolete or useless stores.

The Director-General of Engineers.

This post is held by a Lieutenant-General, with a Brigadier as Secretary, the work being divided as follows:—

- Secretary's office.
- 1st office. The Technical Committee.
- 2nd „ The Topographical Department.
- 3rd „ The Engineer Museum and Library.
- 4th „ The Committee for Coast Defences.
- 5th „ Intelligence and Foreign Correspondence.
- 6th „ Printing and issue of the “Memorial de Ingenieros.”

The Director-General of the General Staff.

This post is held by a Lieutenant-General with a Brigadier as Secretary. To assist the Director-General there is a technical committee (Junta Superior Facultiva del Estado Mayor) which is composed of the principal Staff Officers at head-quarters.

The work in the office of the Director-General is divided into two sections, of which one deals with matters affecting Officers of the Staff, organisation, duties, and general subjects; and the other includes everything relating to the museum, the work of the corps, accounts, academies, libraries, and archives of all dependencies of the corps.

The Director-General of the Carabineros.

This post is held by a Lieutenant-General. The work of the office is divided into the following five sections, in addition to a central section:—

- | | |
|--------------|--|
| 1st section. | Personnel of officers; promotions, pensions, &c. |
| 2nd „ | Personnel of men; promotion, retirements, &c. |
| 3rd „ | Rewards, re-engagements, &c. |
| 4th „ | Organisation, discipline, instruction, &c. |
| 5th „ | Details and accounts: remounts, arms, clothing, equipment, &c. |

There is also a Pay Office and a Record Office.

The Carabineros of the Peninsula are organised by districts, each of which is under a Colonel of the corps. These are divided into sub-districts, commanded by Lieutenant-Colonels or Majors.

The districts and sub-districts are as follows:—

- | | |
|----------------|--|
| 1st District: | Pamplona. |
| Sub-districts: | Bilbao, Guipuzcoa, Navarra (Pamplona), Huesca (Jaca). |
| 2nd District: | Barcelona. |
| Sub-districts: | Barcelona, Gerona (Figueras), Lérida, Tarragona, Mallorca (Palma). |
| 3rd District: | Valencia. |
| Sub-districts: | Alicante, Almeria, Valencia, Murcia (Cartagena), Castellon. |
| 4th District: | Sevilla. |
| Sub-districts: | Cadiz, Algeciras, Málaga, Granada (Motril), Sevilla, Huelva. |
| 5th District: | Zamora. |
| Sub-districts: | Badajoz, Cáceres, Salamanca, Zamor Santander. |
| 6th District: | Coruña. |
| Sub-districts: | Astúrias (Oviedo), Coruña, Lugo, Ponte Vedra, Orense. |

The Guardia Civil.

This force is under a General Officer of the Army with the title of Director-Colonel General.

The force itself, as regards its organisation and discipline, is under the Minister of War, but the orders for its distribution and employment are issued by the Minister of the Interior.

The Guardia Civil is organised in 15 regiments (tercios) each commanded by a Colonel Sub-Inspector.

These tercios are stationed as follows:—

1st Tercio ..	..	{	Guadalajara.
			Madrid.
			Segovia.
2nd Tercio ..	..	{	Toledo.
			Cuenca.
			Ciudad Real.
3rd Tercio ..	..	{	Barcelona.
			Gerona.
			Lérida.
			Tarragona.
4th Tercio ..	..	{	Cordoba.
			Sevilla.
			Cadiz.
5th Tercio ..	..	{	Castellon.
			Valencia.
			Baleares.
6th Tercio ..	..	{	Pontevedra.
			Lugo.
			Coruña.
			Orense.
7th Tercio ..	..	{	Huesca.
			Teruel.
			Zaragoza.
8th Tercio ..	..	{	Granada.
			Jaen.
9th Tercio ..	..	{	Valladolid.
			Zamora.
			Salamanca.
			Avila.
10th Tercio ..	..	{	Oviedo.
			Leon.
			Palencia.
11th Tercio ..	..	{	Badajoz.
			Cáceres.
			Huelva.
12th Tercio ..	..	{	Logroño.
			Búrgos.
			Santander.
			Sória.
13th Tercio ..	..	{	Vizcaya.
			Alava.
			Guipuzcoa.
			Navarra.

14th Tercio ..	..	{ Madrid, North. Madrid, South.
15th Tercio ..	..	{ Alicante. Albacete. Murcia.
16th Tercio ..	..	{ Málaga. Almería.

The Corps of Invalids and most of the Military Departments are also under their own Directors-General, as has been mentioned in Chapters VII and IX. The officials of the various departments are allotted to the different military districts, according to their requirements.

THE COLONIAL ARMY.

The organisation of the Colonial Army is similar to that of the Home Army. Each of the three sections which compose it is under the command of a Captain-General, with a corresponding staff.

Cuba.—The Captain-General has a Major-General as second in command,* as well as three Generals and seven Brigadiers, supernumerary and variously employed.

The Island is divided into the following districts, each of which is under a General or Brigadier: Santiago de Cuba, Holguin, Pinar del Rio, Habana, Santa Clara, and Puerto Principe.

The Captain-General has a Brigadier as Chief of the Staff, and each of the subordinate Generals has a Major in a similar capacity.

The Artillery in Cuba is under a Sub-Inspector (a Major-General), who is assisted by a technical committee, and by an economical committee. The different Artillery commands are given in Appendix A, Table II.

The Engineers in Cuba are under a Sub-Inspector, also a Major-General. Engineer commands are given in Appendix A, Table II.

The Intendance Department is under a Divisional Intendant and the Medical Department under a 2nd Class Inspector.†

Puerto Rico.—The Captain-General of this Island has a second in command (a Brigadier), and a staff composed of a Colonel, a Lieutenant-Colonel, two Majors, and a Captain.

The Artillery and Engineers are each under the command of a Colonel.

The various commands are shown in Appendix A, Table II. The Intendance Department is under a Sub-Intendant, and the Medical Department under a 2nd Class Sub-Inspector.

* This officer is Sub-Inspector of Infantry, Cavalry, Militia, and Volunteers.

† See Chap. XIV, page 93.

The Philippine Islands.—The Captain-General of the Philippines has a second in command (a Major-General), and is assisted by a staff composed of a Brigadier, a Colonel, a Lieutenant-Colonel, and four Majors.

The seven regiments of Native Infantry form two half brigades, each commanded by a Colonel. One half brigade is made up of the troops furnishing the garrison of Manila and Cavite, the other is composed of the troops stationed at Mindanao and Visayas.

The Artillery and Engineers are each under a Sub-Inspector (a Brigadier). The Artillery and Engineer commands are shown in Appendix A, Table II.

The Indendance Department is under an Army Intendant, and the Medical Department is under a Director Sub-Inspector.

ARMY ADMINISTRATION IN THE FIELD.

The Staff of an Army in the field is composed as follows:—

The Commander-in-Chief, with eight Aides-de-Camp and four attached officers.

The Chief of the Staff, with two Aides-de-Camp.

The General commanding the Artillery.

The General commanding the Engineers.

The Inspector-General of Communications and Depôts.

The Intendant-General.

The Medical Inspector.

The Auditor-General.

The Vicar-General.

The Commandant at Headquarters.

The Commandant of the Guardia Civil.

The Conductor-General of Baggage.

The Chief Quartermaster.

In addition, there are messengers, escorts, servants, veterinaries, farriers, interpreters, and a printing press or lithographic apparatus.

The Commander-in-Chief is responsible only to the War Minister, and has unlimited power whether at home or abroad. He is not, however, authorised to conclude peace, or a long suspension of hostilities.

The Chief of the Staff at Army Headquarters is a General Officer, appointed on the recommendation of the Commander-in-Chief. The Officers of the General Staff and Departments are under his immediate orders. His special duties consist in the preparation and issue of orders, which are sent out in the name of the Commander-in-Chief, and in the personal management of the efforts to obtain intelligence. He has also complete control over the distribution to the various branches of the attached officers of the General Staff.*

* The number of these officers is not laid down.

An Assistant-Chief of the Staff may be appointed, but the duties of this officer are not specified.

The General commanding the Artillery has under him an Artillery Staff, at the head of which is a Colonel or Brigadier, who is appointed on his recommendation. The proportion of Artillery to Army Corps, Divisions, &c., not being fixed, it is the duty of the Commander of the Artillery to recommend to the Commander-in-Chief the most suitable distribution of his arm. He also arranges for the establishment of all Artillery Parks, Siege Trains, &c., required by the army. In action he is responsible for the disposition of the batteries, but he does not take personal command unless the whole force of Artillery is combined for some particular operation, or unless specially ordered by the Commander-in-Chief.

Under ordinary circumstances the command of the Artillery is left to the Artillery Commanders of Army Corps or Divisions, the duties of the General commanding the Artillery being exclusively those connected with general direction and inspection.

The General commanding the Engineers has a staff composed of—

A Second in Command (when necessary),
A Chief Staff Officer,
The Superintendent of the Central Park,
An Adjutant as Secretary,

and as many attached officers as the nature of the operations may render desirable, together with clerks of works, draughtsmen, &c.

The General commanding the Engineers receives his orders from the Commander-in-Chief direct, or from the Chief of the Staff. He selects the points for the establishment of Engineer Parks, and is responsible for the mobilisation and distribution of the Pontoon Train and the Siege Park.

With each Division there is a commanding officer of Engineers of the rank of Field Officer.

The Inspector-General of Communications and Depôts is a General Officer, who has under his immediate orders officials belonging to the railway and telegraph services, and of the intendance, medical, and postal departments.

In addition to maintaining a general superintendence over the étappen stations and depôts, it is the duty of the Inspector-General to provide for the administration of any territories of the enemy which may be occupied by the army, until a regular Government is established.

The Intendant-General has under him a Sub-Intendant and a Paymaster, and is responsible for the establishment of depôts within the zone of operations, and for their proper maintenance, as well as for all military expenditure.

The Medical Inspector is responsible that the medical services are properly carried out, and arranges for the removal

of the wounded, in conjunction with the Inspector-General of Communications.

The Auditor-General is the legal adviser of the Commander-in-Chief for questions of military law, and also of civil law, in case of the occupation of foreign territory.

The Vicar-General is responsible for the due performance of divine service in the army, and has the power of provisionally suspending Chaplains who fail in their duty, and of appointing others.

The Commandant at Headquarters has command of all escort troops and others attached to Headquarters; and, within the place where the Headquarters are established, he has unlimited police authority over both soldiers and civilians. He has general charge of the sanitary duties in camp; arranges disputes between soldiers and civilians, examines spies and deserters, and attends to the posting of guards over the baggage, &c. The Chief Quartermaster, the Baggage Officer, and the Commandant of the Guardia Civil, are under the direct orders of the Commandant at Headquarters, all being subordinate to the Chief of the Staff.

The Commandant at Headquarters of an army is a Colonel, and is generally nominated by the Chief of the Staff.

The Conductor-General of Baggage is appointed by the Commander-in-Chief on the recommendation of the Chief of the Staff. The number of vehicles allowed, and their description, depend on the nature of the country to be traversed, and are announced by general orders at the commencement of the campaign.

The Chief Quartermaster is a Field Officer, whose duties are to obtain suitable accommodation for the Headquarters Staff.

CHAPTER XVI.

MILITARY DISCIPLINE.

There are three classes of penalties to which the Spanish soldier is liable:—

- (a.) Regimental Punishments, viz., confinement in cells, guard,* or barrack-room, and fatigues.
- (b.) Service in a Disciplinary Corps.
- (c.) Disgraceful Punishments, viz., hard labour, confinement in a military prison, and death.

* Men confined in the cells or guard-room are not allowed bedding, but are given a bolster and blankets during the night. A Colonel commanding a regiment has the power of giving one month's confinement.

The period of service in the ranks may also be extended, as a punishment.

CRIMES AND PUNISHMENTS.

Desertion.—A man who is absent without leave for over four days, or who is found at a distance of more than four leagues from his quarters, is considered to be a deserter.

Each attempt to desert is punished by a year's additional service in the corps to which the man belongs.

A first act of desertion is punished by a sentence of service in a disciplinary corps for the remainder of the man's term of service, the period of illegal absence being added to the normal period.

If, however, a deserter should give himself up within eight days, he is allowed to return to his corps without other punishment than the loss of service involved by his attempt.

A second act of desertion is punished by eight years* of confinement in a military prison, the loss of all advantages, and inability to serve again.

Drunkenness, Selling Kit, Gambling, Sleeping out of Barracks, or Cheating.—In any of these offences a first act entails a month in the cells, and an entry in the defaulters' book; a second or a third act, transfer to a disciplinary corps for the remainder of the man's service. A third case of drunkenness, however, brings with it imprisonment for a month, and a man who is drunk and disorderly is sent to a disciplinary corps, even though it be his first act.

Theft.—The punishment for this crime varies with the amount stolen. From 1 to 10 reals ($2\frac{1}{2}d.$ to $2s.$) imprisonment for remainder of service, provided this is not less than three years. If it is, then, in addition, the period necessary to complete three years.

From 10 to 200 reals ($2s.$ to $\pounds 2$), ten years' imprisonment.

Above 200 reals ($\pounds 2$), capital punishment or hard labour for life.

Theft with Violence.—Capital punishment or hard labour for life, even though the attempt should be unsuccessful.

Theft of Arms and Ammunition.—Death, or hard labour for life.

Insubordination—

Towards Officers, Sergeants of the Company, and Sentries.—Death.

Towards Corporals of the Company.—Six years' imprisonment.

Towards Sergeants and Corporals of other Companies.—Death, if on duty under arms, otherwise three years' imprisonment.

* 9 years in cases where the deserter had been forgiven for the first act.

Disobedience in matters of duty to officers, sergeants, or corporals, is punished with death, if on duty under arms in the field, and otherwise with hard labour for life.

Offences against authority are punished by imprisonment of varying degrees, and by fine.

Disrespect to authority is punished by minor imprisonment and fine.

Sedition or mutiny is punished by death, and those who being aware of it fail to disclose it, incur the same penalty.

Abandoning a Guard.—In time of peace this offence is punished by condemnation to service in a disciplinary regiment for remainder of the man's service; in time of war by death.

A sentry found sleeping is imprisoned for four years, and if he abandons his post, changes it without leave, or fails to give warning of danger, he is punished with death.

A sentry who amuses himself by working or who sits down or lays down his arms is punished with two months' cells.

Over-staying Leave.—If over eight days a regimental punishment; if over a month the same as for desertion.

Persuading to Join a Fray.—A man who is engaged in a fray and calls to another to assist him, is liable to be shot, and the man who joins him is liable to the same penalty.

Homicide.—A man who kills or mortally wounds another deliberately, with treachery and premeditation, is punished with death. If the wounds inflicted are not mortal, the punishment is ten years' imprisonment.

Wounding without Premeditation.—This is punished by condemnation to a disciplinary corps for the remainder of the man's service.

False Witness.—In a capital case, a man who makes use of false witness is liable to be shot; in minor cases a less severe penalty is inflicted.

COURTS-MARTIAL.

There is only one nature of court-martial in the Spanish army, the rank of the President and members varying with the rank of the prisoner, according to the following table:—

Rank of prisoner.	Rank of	
	President.	Members.
Private, non-commissioned officer, or Subaltern	Colonel or Field Officer in Command	Captains.
Captain or Major	Colonel	Lieut.-Colonels.
Lieut.-Colonel	Brigadier	Colonels.
Colonel	Major-General	Brigadiers.
General Officer	Captain-General or Lieut.-General	Lieut.-Generals or Major-Generals.

The President and members should, if practicable, belong to the same corps as the prisoner, and in every case two of the members must belong to his corps. An officer of the Department of Military Justice always acts as assessor to a court-martial.

CHAPTER XVII.

PERMANENT MILITARY ESTABLISHMENTS.

The permanent military establishments maintained in Spain are the Artillery, Engineer, Medical, and Miscellaneous Establishments.

THE ARTILLERY ESTABLISHMENTS.

These establishments, which consist of factories and parks, are, so far as regards matériel, under the Director-General of Artillery; but the men employed are under the orders of the Commandant of the Artillery of the district. The manufacturing establishments are as follows:—

The Gun Factory of Trubia.—These works are situated in the iron districts of the north, some 6 miles from Oviedo. The construction of the following guns, &c., was laid down as the programme of work for the year 1882–3. One 30 cm. experimental gun; four 25 cm. Palliser guns, complete with carriages, &c.; eight 24 cm. guns, and twenty-four 15 cm. guns, with their carriages; eight siege carriages of steel for guns of 15 cm.; six for guns of 14 cm., and eight for howitzers of 21 cm. In addition to the above the programme of work included 84 steel carriages for field guns, besides 6,000 projectiles for guns of 15 cm. and higher calibres. This factory is under a Colonel with 10 officers as assistants. The number of workmen employed varies between 600 and 900.

The Bronze Foundry of Seville.—This factory is mainly employed in the conversion and production of siege and field guns. The programme of work for 1882–3 included the following:—Construction of eight B.L. siege guns of compressed bronze of 15 cm., and of eight 21 cm. howitzers of compressed bronze, also for siege purposes. Conversion of eighteen 13 cm. S.B. guns into 14 cm. R.B.L. guns, and of forty-eight 8 cm. R.B.L. steel Krupp guns into improved long 8 cm. R.B.L. guns.* Construction of twenty-four 8 cm. and twelve 9 cm. R.B.L. field guns of compressed bronze. In addition to the above the programme of work included 16,200 projectiles from 21 cm. down to 8 cm. This factory is under a Colonel, with four officers as assistants. About 100 workmen are generally employed.

* See Appendix E.

The Laboratory of Seville.—This factory supplies fuzes, tubes, and metallic cartridge cases for small arms. The programme for 1882-3 included the following:—8,000 percussion and 6,000 time fuzes; 8,000,000 metallic cartridge cases unloaded; 100,000 revolver cartridges, and 45,000 friction tubes. The laboratory of Seville is under a Colonel, with five officers as assistants.

The Arsenal of Seville.—This establishment prepares the greater part of the Ordnance stores required for the army, and retains them till they are issued. The upper storey of the building forms five principal store houses, of which one is fitted as an armoury for 20,000 stand of arms, another is arranged for 120 sets of harness for four mules each, and a third for stores for 200 guns of different calibres, the rest being allotted to miscellaneous stores. The programme of work for 1882-3 included the following:—108 sets of stores for guns of from 8 to 25 cm.; 24 park wagons; 12 trucks to carry 5 tons, and two for 25 tons; 60 sets of harness, and 72 sets of saddlery. The arsenal of Seville is under a Colonel, with four officers as assistants.

The Small-arms Factory at Toledo.—This factory is, under ordinary circumstances, employed solely in the production of *armes blanches*, but it is furnished also with cartridge machinery, and in time of war can assist in supplying metallic cartridge cases. The programme of work for 1882-3, in addition to the swords, &c., turned out for sale, included the production of 1,000 lances and 1,000 cavalry sabres. The factory is under a Colonel, with four officers as assistants. About 240 workmen are usually employed.

The Rifle Factory at Oviedo.—These works are established in the old Convent of La Vega, at Oviedo: the programme for 1882-3, included the construction of 16,000 rifles, and the sum of 160,000 pesetas (£6,400) was also allotted to this factory for the acquisition, either by construction or by purchase, of 2,000 repeating rifles of the pattern which might be approved on the completion of experiments in progress. The factory at Oviedo is under a Colonel, who has three officers to assist him. 800 workmen are permanently employed.

The Powder Mills of Murcia.—These mills in addition to the manufacture of powder, refine all the saltpetre required both here and in the mills at Granada. The quantity of powder to be produced in 1882-3 was as follows:—

	Kilogrammes.	Tons.	Cwt.
Prismatic powder	60,000	59	2
Large grain powder (6 to 10 mm.) ..	30,000	29	11
Pebble powder (for Armstrong guns)..	30,000	29	11

These powder mills are under a Colonel, with three officers as assistants.

The Powder Mills of Granada.—These are established at El Fargue, about $2\frac{1}{2}$ miles from the city of Granada. In 1882-3 they were to produce:—

		Kilogrammes.	Tons.	Cwt.
Prismatic powder	.. ..	12,000	11	16
Rifle powder (worked up again)	.. ..	90,000	88	13

The powder mills of Granada are under a Colonel, who has two officers to assist him.

Artillery Parks.

These are of two classes, and are established at the places mentioned below. They serve in time of peace as store-houses for arms and equipment, and as workshops where repairs are executed. They are usually supplied with some steam machinery; but in time of peace this is not used, the artificers being taught to carry out repairs with such appliances only as would be available in the field.

1st Class Artillery Parks.—Madrid, Barcelona, Cadiz, Coruña, Cartagena, and Santa Cruz de Tenerife.

2nd Class Artillery Parks.—Tarragona, Gerona, Lérida, Figueras, Tortosa, Tarifa, Algeciras, Zaragoza, Jaca, Valencia, Ferrol, Vigo, Malaga, Melilla, Valladolid, Ciudad-Rodrigo, Gijon, Búrgos, Santoña, Pamplona, San Sebastian, Bilbao, Vittoria, Badajoz, Mahon, Palma de Mallorca, and Las Palmas.

Siege Train.

The Siege Train consists of four sections of similar composition, stored in the Artillery Parks of Barcelona, Búrgos, Madrid, and Zaragoza. The pieces of ordnance forming a section of the Siege Train, are as follows:—

12	guns of	16	centimetres.
18	„	15	„
8	„	14	„
8	„	10	„
2	mortars* of	32	„
2	„	27	„
<hr/>			
50			

The various carriages† and harness required are also kept in the Artillery Parks. The personnel of the siege train would be furnished from the Garrison Artillery.

ENGINEER ESTABLISHMENTS.

Exclusive of the Field and Fortress Parks already referred to (page 30), there are only two permanent engineer establishments in Spain, viz., the Central Engineer Reserve Park, and

* Mortars will be replaced by 21 cm. howitzers when sufficient numbers have been constructed.

† See page 59.

the engineer workshops. Both of these are under the same roof, in an old convent at Guadalajara, some 20 miles from Madrid. The Engineer Park has charge of the various engineer appliances, pontoons, tools, &c., which would be required on mobilisation; but in 1881 the supply of equipment was not complete.

The engineer workshops are employed in producing and repairing every sort of engineer equipment required either in peace or war, and serve as a practical school for the instruction of artificers belonging to the corps. The students at the Engineer Academy are also here afforded an opportunity of becoming acquainted with the details of engineer equipment.

The workshops are under a Lieutenant-Colonel, and there is a permanent establishment of 24 men, besides clerks of works, &c. The remainder of the workmen employed are supplied by the 40 companies of Engineers, each of which sends two or three men, who receive working pay while attached to the establishment.

MEDICAL ESTABLISHMENTS.

The medical establishments permanently maintained in connection with the Spanish Army consist of the Military Hospitals, the Sanitary Park, the Medical Depôt, and an Anatomical Museum, attached to the Madrid Military Hospital.

The Military Hospitals.—The Spanish Military Hospitals were reorganised by a Royal Decree of the 19th April, 1880. By this decree each hospital is placed in charge of a military officer, styled Director of the Hospital, who is responsible for all matters of discipline and interior economy. This officer is under the immediate orders of the Military Governor of the place, and reports to him on all that takes place in the hospital. The medical duties are, however, exclusively in the hands of the Senior Military Surgeon, whilst the administrative duties are under an Intendance officer. In each military hospital these officers form an Administrative Committee, the Director being President, and the Senior Surgeon and the Intendance officer members, a Paymaster of the Intendance Department acting as Secretary.

Military hospitals are established at the Headquarters of each Military District, and at all the most important garrisons. The care of the sick is provided for by the men of the Sanitary Brigade* (see page 41).

The Sanitary Park.

This establishment is designed to assist in studying and perfecting every sort of medical appliance, whether for the healing, transport, or care of the sick and wounded. In it

* Sisters of charity were formerly admitted to military hospitals, but this system was put a stop to by a decree of the 6th September, 1882.

models are constructed and tested, and all medical and surgical necessaries are stored, and issued to the Spanish Army, both at home and abroad.

The Sanitary Park is in charge of a Second-class Sub-Inspector, with a Surgeon-Major as assistant.

It is situated at the ex-convent of San Francisco el Grande, Rosario, Madrid.

The Central Laboratory and Medical Depôt.

This institution is established at Madrid, and issues drugs to the various military hospitals. It is in charge of a First-class Sub-Inspector of the apothecary's branch.

MISCELLANEOUS ESTABLISHMENTS.

An establishment for breeding and training carrier pigeons was commenced in 1879 at Guadalajara by General Reina, and is successfully maintained.

CHAPTER. XVIII.

MILITARY EDUCATION.

In Spain each arm of the service has its own academy for the education of those who are to become officers, but all these establishments are under the superintendance of the Director-General of Military Education. The various academies are as follows:—*

Infantry Academy at Toledo.	
Cavalry	” ” Valladolid.
Artillery	” ” Segovia.
Engineer	” ” Guadalajara.
The General Staff Academy at Madrid.	

In addition to the above there are the Academy of the Intendance Department at Avila, and the Company of the Young Guardia Civil, and, in connection with the Colonial Army, the Academy of the Philippines.

The Infantry Academy at Toledo.

This establishment is under the orders of the Brigadier directing the Central Instructional Establishment for Infantry.

The Staff of the Academy is as follows:—

* It is contemplated to form in addition preparatory schools in each military district for lads of 13 to 16.

- 1 Colonel—Sub-Director of Studies.
- 1 Lieutenant-Colonel—for Interior Economy.
- 6 Majors—Professors commanding companies.
- 15 Captains—Professors, viz., two per company, with an Adjutant,* a Paymaster, and a Librarian.
- 35 Lieutenants—Professors.
 - 1 1st Class Surgeon.
 - 1 2nd Class Surgeon.
 - 1 Chaplain.
 - 1 Riding-master.
 - 1 Band-master.

There are in addition three sergeants-major and six sergeants, with 21 corporals and 133 infantry soldiers attached for duty as servants, &c., and a band of 46 musicians, besides a corporal and eight buglers.

The Academy is established in the Alcazar of Toledo, and the number of cadets is fixed at 600,† of whom about one-third are non-resident, and live with their relations in the city. The cadets form six companies.

Admission to the Academy is by an examination, held once in each year, half the number of vacancies being allotted to sons of military men, and the other half to sons of civilians. Men in the ranks are allowed to compete at any age, the limit of age for other candidates being between 14 and 20 for sons of military men, and between 16 and 20 for sons of civilians.

Cadets on joining have to supply themselves with uniform, &c., and must pay a sum of 165 pesetas (£6 12s.) for furniture and equipment, besides paying half-yearly in advance for their board at the rate of 3 pesetas (2s. 6d.) per day.

The following are the subjects of the entrance examination:—

- Spanish grammar.
- Arithmetic (including decimals, greatest common measure, and least common multiple).
- History of Spain, and geography as laid down.

Cadets remain for three years at the Academy, and the course of studies is as follows:—

1st year—

- Arithmetic and algebra.
- Military duties and tactics.
- French.
- Military geography.
- Gymnastics and drill.

2nd year—

- Geometry, plane trigonometry, conic sections.
- Military administration, tactics, and military law.

* This officer commands the infantry soldiers attached to the Academy.

† This may be modified by the Director-General of Infantry.

Military geography.
 Military history of Spain.
 Practical instruction and gun drill.

3rd year—

Field fortification and elements of permanent fortification, camps and military bridges.
 Elements of physics and chemistry, arms in use, elements of artillery.
 Strategy, field training and reconnaissance.
 Repetition of the military portion of the previous year's course.
 Topographical drawing.
 Riding and fencing.

Examinations are held every six months, and the position of the cadets on the seniority lists when they leave the Academy is determined by the total number of marks obtained at these examinations.

The punishments to which cadets are liable are as follows:—

1st Grade	..	{	Private reprimand. Confinement to barracks. Public reprimand before the class or company. Punishment drill.
2nd Grade	..	{	Company arrest, one to three days, without absence from the classes. Arrest in guard-room on a holyday. Arrest in guard-room for from one to eight days.
3rd Grade	..	{	Public reprimand before the whole Academy. Suspension of corporals and sergeants. Confinement for from one to eight days in cells. Confinement for fifteen days without attending the classes.
4th Grade	..	{	Reduction to ranks of corporals and sergeants. Private expulsion. Public expulsion.

Punishments of the first three grades can be inflicted by individual officers, but those of the 4th grade are reserved for offences brought before the Council of Discipline. This Council consists of the Director as President, and the Field Officers of the Academy and Commanders of companies as members.

The Cavalry Academy at Valladolid.

This Academy furnishes officers for the Spanish Cavalry, and is analogous in its composition to the Infantry Academy de-

scribed above. It is, however, on a smaller scale, the number of cadets being fixed at 120,* and as the building in which the Academy is established has merely accommodation for the class rooms, all the cadets are non-resident.

The Staff consists of a Director (a Colonel) and 22 other officers, of whom two are Veterinary Professors and two Riding-masters.

Admission is by competitive examination, the ages of candidates being the same as for Infantry, but limited to 22 years in the case of men already in the ranks. The subjects for the entrance examination are much the same as for admission to the Infantry Academy, but with the addition of translation from the French, and drawing, and with an extension of the arithmetic to cube roots and the use of logarithms.

The course lasts for three years, and the list of subjects only differs from the Infantry course by including a study of the duties peculiar to a Cavalry officer, and a series of lectures on hippology.

The Artillery Academy at Segovia.

This Academy educates all the officers who join the Spanish Artillery. The Staff is as follows:—

- 1 Brigadier—Director.
- 1 Colonel—Sub-Director of Studies.
- 1 Lieutenant-Colonel—for Interior Economy.
- 1 Major—Senior Professor.
- 13 Majors or Captains—Professors.
- 1 Captain and Adjutant—Military Instructor.
- 3 Lieutenants—Instructors.
- 2 Surgeons.
- 1 Chaplain.
- 1 Riding-master.

Admission to the Artillery Academy is by competitive examination, the ages of the candidates being from 14 to 20 for the sons of military men, and 15 to 20 for the sons of civilians. The subjects of the entrance examination are the same as for the Infantry Academy, with the addition of French, elementary algebra, and plane geometry.

The course in the Academy lasts for five years, of which the first year is preparatory. The subjects of instruction are nearly the same as those given below for the Engineer Academy at Guadalajara.

The Artillery Academy accommodates about 300 cadets, all of whom are non-resident.

The Engineer Academy at Guadalajara.

The corps of Engineers is exclusively supplied with officers from those who have passed through this Academy. The Staff

* In October, 1881, the number was about 160.

consists of a Director (a Colonel), an Assistant-Director, 14 Professors, and five Instructors, with a Chaplain, a Surgeon, a Riding-master, and a Fencing-master. About 60 non-commissioned officers and men of the corps are attached to the Academy for duty.

The number of cadets in 1881 was 284, all of whom are non-resident.

Admission to the Academy is by competitive examination, the number of vacancies to be annually competed for amounting to about 25.*

The subjects for the entrance examination are arithmetic, including logarithms; algebra, including series, the binomial and exponential theorems; plane and solid geometry; translation from French; drawing; Spanish history; and geography.

The ordinary course in the Academy consists of one year of a preparatory, and four years of the regular course, but candidates who pass in the subjects laid down for the preparatory year, in addition to those given above, may be admitted direct to the regular course. The age of admission for this class of candidates is from 16 to 20, and for those who enter the preparatory class from 15 to 20, the sons of military men being in each case admitted one year earlier. Subalterns of Infantry and Cavalry are allowed to become candidates.

In the Academy, instruction is given in the following subjects:—

Preparatory course :

Higher algebra; analytic geometry; plane and spherical trigonometry; descriptive geometry; graphic calculation: also the duties of a non-commissioned officer; general orders; company drill, and skirmishing.

Regular course :

1st year—Differential calculus (applied to lines and surfaces); integral calculus; elementary astronomy; practical astronomy (latitude and longitude); descriptive geometry (projections, shadows, perspective); optics; topography; geodesy.

Also subaltern officers' duties, battalion drill, and proceedings of courts-martial.

2nd year—Mechanics; solid geometry; statics; dynamics; applied mechanics; steam machinery; physics; chemistry; geology and mineralogy; building materials in use.

Also Captain's duties, company regulations, and hippology.

3rd year—Mechanics applied to construction; employment of materials; foundations; road making; rail-

* In July, 1881, there were 115 competitors for 25 vacancies.

ways; the locomotive engine; hydraulics; hydraulic works on rivers, canals, &c.; harbour works; stone cutting; carpentry;* iron working; bridges; architecture; irrigation and waterworks.

Also Engineer regulations: duties of an Engineer officer; pontooning; extinction of fires; regulations for the construction of works.

4th year—Artillery; field fortification; permanent fortification (including attack and defence of fortresses, the employment of iron shields, &c.); strategic fortification; coast fortification; semi-permanent fortification; military art (organization, tactics, including reconnaissance, strategy); military bridges; employment of railways in war; telegraphy (civil and military); mining; military geography.

Also the Sappers' and Miners' Manuals; telegraph regulations; duties of Engineers in the field.

During the whole course at the Academy every cadet is employed in drawing for $1\frac{1}{2}$ hours daily; the hours of study in the class rooms being from 9 A.M. till 2 P.M.

At the commencement of the third year the cadet has the rank of Ensign, and on leaving the Academy passes into the corps of Engineers with the rank of Lieutenant.

The Staff Academy at Madrid.

Admission to the General Staff of the Army is only to be obtained by passing through this Academy. Both civilians and officers already in the Army can become students on passing the entrance examination, the limits of age being between 16 and 25, but sons of military men are admitted at 14.

The Staff of the Academy consists of a Director (a Brigadier), with an Assistant (a Colonel), and a variable number of Professors (Majors and Captains), with a Surgeon, a Riding-master, a Fencing-master, and some Cavalry soldiers to look after the Riding School horses.

The competitive examination for entrance to the Academy is held in Madrid annually, the subjects for examination being as follows:—Arithmetic; algebra; elementary geometry; elements of descriptive geometry; plane and spherical trigonometry; freehand drawing; French; Spanish history; general political geography. Candidates must also present certificates of competency in Spanish grammar, and in the elements of general history.

The course of study lasts for four years, the subjects being as follow:—

1st year—Analytic geometry; elementary mechanics;

* There is a carpenters' shop attached to the Academy where work are carried out by sappers from plans drawn by cadets.

physics; chemistry; descriptive geometry; shadows; perspective; proceedings of courts-martial; general orders; Infantry, Cavalry, and Artillery tactics; interior economy; military administration; drawing.

2nd year—Astronomy; meteorology; geodesy; differential and integral calculus; mechanics; topography; reconnaissance; international law; topographical drawing; short-hand.

3rd year—Military geography; elements of mineralogy and geology; fortification; attack and defence of fortresses; mining; camps; Artillery; military bridges; French; riding; topographical drawing; short-hand.

4th year—Higher tactics of Infantry, Cavalry, and Artillery; strategy: army organization; regulations of special corps; regulations and duties of the General Staff; military history; riding; fencing; landscape drawing.

The number of students in the Academy is not fixed, as it depends upon the requirements of the Service. In 1881 the number was 110.

At the end of the second year students receive the rank of Ensign, and on leaving the Academy they join the General Staff with the rank of Lieutenant.

The Intendance Academy at Avila.

This Academy prepares a varying number of young men for the Intendance Department. The course lasts for two years, and the Establishment is entirely in the hands of officials belonging to the Department.

The Company of Young Guardia Civil.

This is composed of the sons of subalterns, non-commissioned officers, or men of the corps, and is intended especially as a provision for orphans. These are admitted at 8 years of age, but boys whose fathers are alive enter between 12 and 15. They are given an elementary education, and are taught gymnastics and otherwise prepared for entering the army. They are, moreover, taught a trade, so that if from physical unfitness or any other cause they are unsuitable for the military service, they have means of earning a livelihood. They leave the company at 18 years of age. The number of lads in 1879 was about 244.

The Infantry Academy of the Philippines.

In connection with the Colonial Army there is the Infantry Academy of the Philippines. This has a staff of a Lieutenant-Colonel and five other officers, and admits 30 pupils* who on

* This number may be changed according to circumstances.

passing through the Academy, become officers of Infantry. Two-thirds of the vacancies are reserved for sons of military men, and for them the limits of age are from 14 to 20; for sons of civilians the limits are 16 to 20, but men serving in the ranks can enter up to the age of 22. There is an entrance examination. The course lasts three years.

CHAPTER XIX.

TACTICAL NOTES.

INFANTRY TACTICS.

The Infantry unit is the battalion, which consists of four companies.

Each company is made up of four sections, and each section of four squads, two of the latter forming a half section or "Peloton."

A subaltern is in charge of each section, while each peloton is under a sergeant, and each squad under a corporal. The war strength of a company is set down as 200 rank and file.

A company may be formed in column of sections, and a section in column of squads.

Spanish troops fall in in two ranks.

In the normal position of a company in line the officers are in front, each being two paces in advance of the section he commands. Officers only move in rear of their men when they are about to open fire.

Fighting Formations.

The present regulations are dated the 5th July, 1881, and are based on the following axioms:—

1. Fire is the most important agent in action.
2. Troops in the front line must be in dispersed order.
3. They must take advantage of all accidents of ground in order to diminish the effect of the enemy's infantry and artillery fire.

Under the regulations in force, a battalion in front line forms at first four échelons, viz., skirmishers, supports, company reserves, and battalion reserve (see Sketch). The skirmishers are in single rank, with intervals of 3 metres between the men, and are furnished from the three leading companies. The supports are about 50 metres in rear of the skirmishers, and are in line of pelotons, generally in double rank.

Two sections of each company are thus employed, and the

other two sections form the company reserves for their own companies about 200 metres in rear of the skirmishing line. The battalion reserve is composed of the 4th company, and follows in rear of the centre, about 300 metres behind the company reserves. Both the company reserves and the battalion reserve are in close order.

A brigade of two regiments, each of two battalions, when in fighting order, forms three lines. The first line is composed of one battalion in the formation given above; the second of two battalions side by side, in line of company columns; and the third, of the remaining battalion in close column.

The movements of men in the skirmishing line are directed by means of whistles, the officers being as a rule with the advanced portion of their respective units. It is the duty of non-commissioned officers to follow in rear, and to see that no man falls out of the ranks unless he is severely wounded.

Sketch of a Model Attack as carried out by a Brigade of Four Battalions.

t Zone, 2,400 to 1,200 Metres (2,600 to 1,300 Yards) from the Enemy's Position.

The 1st zone commences at the point where the enemy's artillery fire begins to be effective. On reaching this point the attacking brigade assumes the fighting formation in three lines as mentioned above. The leading battalion in first line forms four échelons (skirmishers, supports, company reserves, and battalion reserve), its total depth being about 500 metres, viz., from skirmishers to supports 50 metres, from supports to company reserves 150 metres, and from company reserves to battalion reserve 300 metres.

The two battalions forming the second line move off in line of company columns at a distance of about 250 metres from the battalion reserve of the leading battalion.

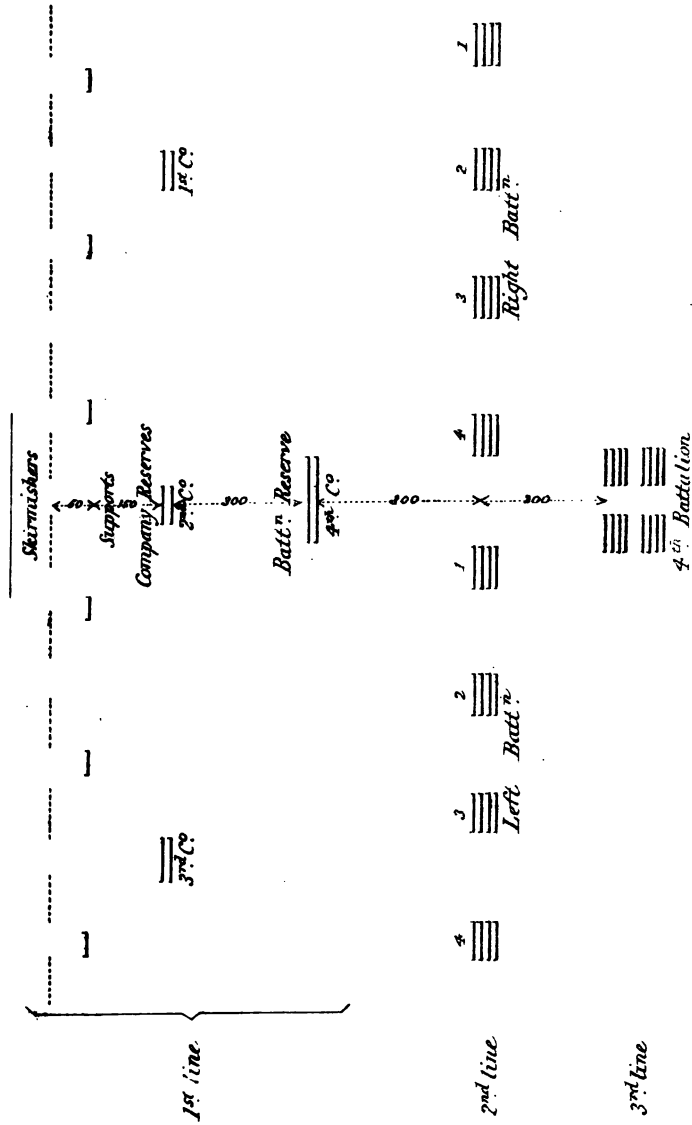
The fourth battalion, forming the third line, follows in double column of sections about 200 metres in rear of the second line.

The total depth of the brigade would thus amount to about 1,050 metres (1,145 yards).

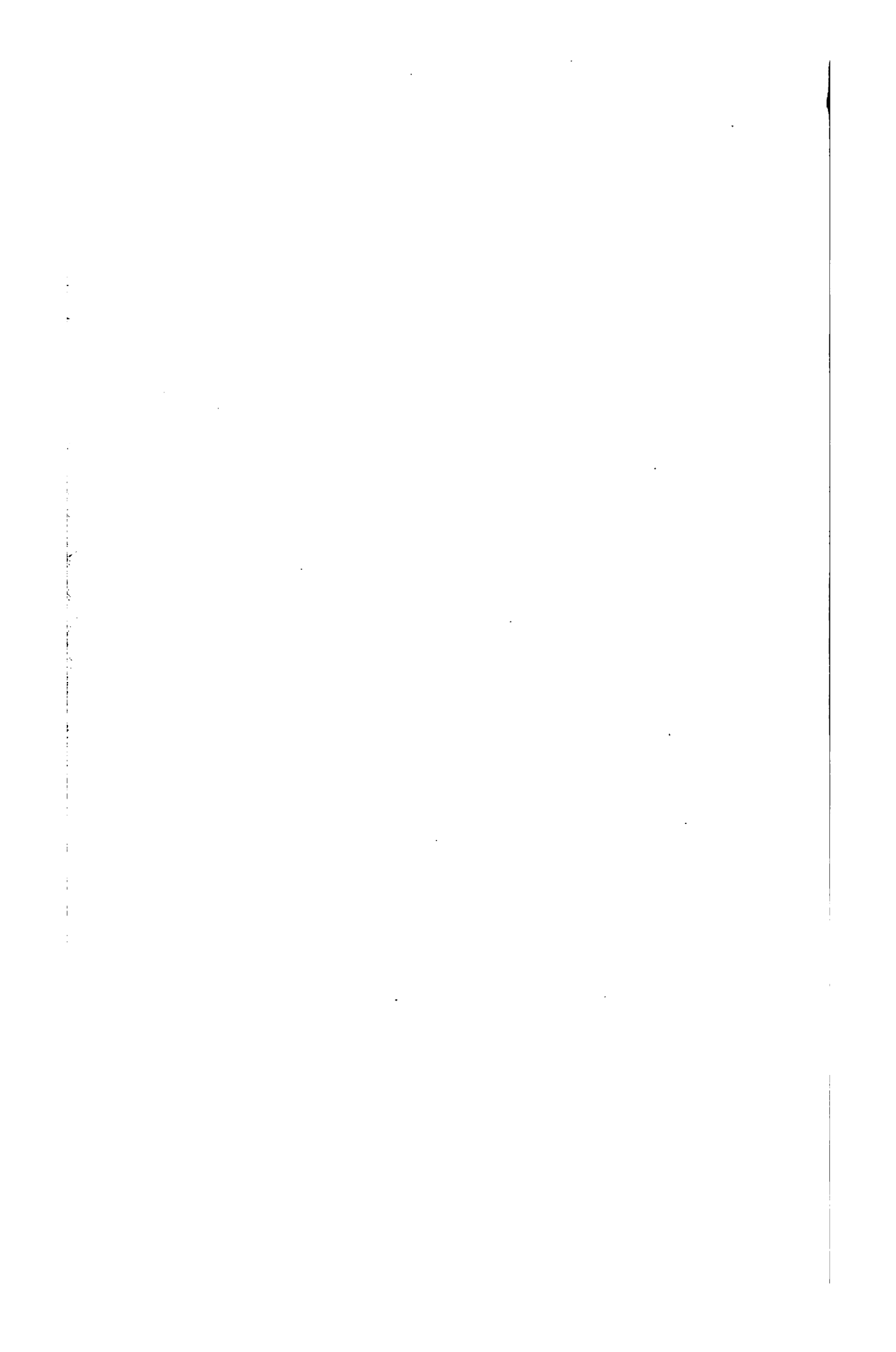
The length of front is about 720 metres (790 yards), but the skirmishing line is not at first continuous, the twelve squads which are sent in the first instance into the skirmishing line taking up positions with intervals between them equal to the front of a squad (30 metres).

For every two squads in the skirmishing line there is a support of equal strength, two sections of each company being thus utilized. The other two sections of each company form three company reserves, each in rear of the portion of the advanced line formed by its own men, and the fourth company forms the battalion reserve.

A Brigade in Fighting Formation



NOTE. Distances in Metres



While in the 1st zone this formation is maintained, but while traversing it the 2nd line reduces the distance between it and the 1st or fighting line.

2nd Zone, 1,200 to 600 Metres (1,300 to 660 Yards).

The 2nd zone commences at the point where the attacking force begins to come under effective musketry fire. When in this zone the skirmishing line is made continuous by moving up the supports into the vacant spaces, and the company reserves take the place of the supports, moving up to within about 120 metres of the skirmishing line. The company reserves advance to this position in sections in line, thus being twice as strong as the line of pelotons which they replace. The battalion reserve deploys, and advances with two sections in rear of each wing, still preserving its original distance of 300 metres in rear of the company reserves.

The 2nd line also maintains its distance of 250 metres from the battalion reserve, and assumes a less deep formation, each company being now in double column of sections, or half company column.

The 3rd line, drawn up in line of company columns, follows the movements of the leading troops.

While traversing the 2nd zone, the advance of the skirmishing line is made by successive rushes of 60 to 70 metres each, firing being allowed only during the halts, which are to be as short as possible, the men not being permitted to lie down.

If, however, an advance by rushes is impracticable, the men are allowed to fire while moving forward at the ordinary pace.

3rd Zone.—From 600 Metres up to the Enemy's Position.

Preparation for the Attack.

After entering the 3rd zone, and before arriving within 300 metres of the enemy's position, the company reserves move up into the skirmishing line, and reinforce the skirmishers of their own companies. When at about 500 metres from the enemy, a halt of five or six minutes may be made, in order to bring a crushing and accurate fire to bear on the enemy.

When the company reserves are absorbed into the skirmishing line, the battalion reserve closes up to within 100 or 150 metres from the skirmishing line, and on arriving at 300 metres from the enemy's position also joins the skirmishers.

The two battalions of the 2nd line, in line of companies (each in double column of sections), move up to within 150 metres of the skirmishing line, and prepare to reinforce the 1st line at the moment of attack.

The 3rd line advances in line of half company columns, closing to about 200 metres of the 2nd line, but keeping under

cover as far as possible, and conforms to the movements of the leading lines.

The Attack.

The preparations above-mentioned being completed, the skirmishing line is considered to have arrived by successive rushes within 200 metres of the enemy's position, the weak points of which can now be recognised. If an attack on a flank be decided on, this is made by half of one of the battalions of the 2nd line, the skirmishers at the same time pushing forward to within 100 metres of the front of the position, and from thence charging with the bayonet, the charge commencing on the left.

If the enemy makes a counter-attack, this will be met by the 2nd and 3rd lines, and if the assault on the position should fail, it is the duty of the 3rd line to cover the retreat of the whole force.

The Defence.

A force defending an unentrenched position assumes exactly the same formation as for the attack, but with smaller intervals. If the position taken up is entrenched, a battalion would send three companies into the advanced line, and keep one in reserve. As soon as the forces of the assailant are seen within range, fire is opened on them by portions of the defending force, usually a section at a time.

When the enemy reaches the 2nd zone he begins to suffer from the accurate fire of the defenders, who open fire not only from their advanced line, but also from those in rear. If closed bodies of the enemy are seen, volleys are discharged at them from the advanced line, which, at first, occupied by men 1 metre apart, is at this time reinforced by the supports, and also, if necessary, by the company reserves, the latter being kept in close order to increase the effect of their fire.

When the enemy enters the 3rd zone the defender begins to use independent fire, but this must be regulated and steady. The fire is, as a rule, to be directed against the assailant's skirmishers. When the enemy's fire becomes very rapid, the battalion reserve moves up into the front line, and the 2nd and 3rd lines close up. If the assailant's fire proves too severe for the force in front line, the 2nd line is to advance and take part in the action, and when the assailant charges with the bayonet, or when he is in disorder, a part of the 3rd line is to make a vigorous counter-attack, whenever possible, against a flank. If this counter-attack is successful, this force will hold the front line; and if it should fail, the remaining portion of the 3rd line is to cover the retreat of the whole force.

Infantry Fire.

The rifle with which the Spanish Infantry are armed* is not

* See page 45.

considered to be effective at a greater range than 1,200 or 1,300 metres (1,300 or 1,420 yards). Fire at objects between 1,200 and 700 metres (1,300 and 760 yards), is called "long range," between 700 and 400 metres (760 and 440 yards) "medium range," and below 400 metres "short range."

Long range fire is used against Artillery, or to make the enemy show his force, but it involves a considerable expenditure of ammunition, and as it will not prevent the enemy from advancing, its use has a bad moral effect. It is, as a rule, to be employed on the defensive rather than on the offensive, and several different sights are to be used.

At medium range only two sights (for ranges differing by 100 metres) are to be used. The fire is to be by word of command, and by groups firing a definite number of rounds in a given time.

At short range only one sight is used; the fire is independent, but its rapidity is, as far as possible, controlled by the officers.

It is considered that the "dangerous zone" is 67 metres wide at 1,000 metres range, 113 at 600 metres range, and that under 300 metres there is no safety for Cavalry, and under 200 metres none for Infantry.

If Infantry in dispersed order are surprised by Cavalry, also in dispersed order, they are directed to throw themselves on the ground; but if there is time to form groups this may be done when a charge in line is made against them. When the Cavalry charge is made in open order, it is considered unnecessary to form groups, but each man opens fire from behind any obstacle he can find.

Infantry acting against Artillery are ordered to close on a hostile battery in dispersed order, and to aim at the officers, gunners, and draught animals. They are to threaten the flanks and rear of the battery, and if there is a special escort attached,* this is to be driven off in the first instance. A party attacking a battery are to be provided with dynamite, hammers, ropes, &c., so as to be able either to destroy or remove any guns which may fall into their hands.

Entrenchments.—It is recognised that field fortification is inseparably connected with tactics, but a regimental supply of tools to the Infantry soldier has not yet been provided for.

CAVALRY TACTICS.

Cavalry may be formed either in line or column, the usual interval in the latter being 12 paces. The columns generally employed are squadron, section, or fours, and double column on the centre. Cavalry as a rule manoeuvre in column and attack in line.

* In the Spanish service it is not customary to detail a special escort for guns, their protection being confided to the nearest troops.

The main duties of Cavalry are reconnaissance (including outpost duties) and fighting.

A Cavalry regiment on reconnaissance or outpost duty adopts the same general formation as Infantry in dispersed order. There are first the cordon of scouts, then the supports, then the squadron reserves, and finally, the regimental reserve. A regiment of Cavalry on outpost duty would usually keep two squadrons in reserve, and send out the other two to form the three parts of the advanced line. Each squadron would in this case form its own supports and reserves to reinforce its scouts.

The length of front covered by Cavalry is estimated as follows:—For a brigade of two regiments, 20 kilometres (12½ miles); for a regiment, 10 kilometres (6 miles); which gives 5 kilometres (3 miles) as the front of squadron. It is considered that the outpost line should be in groups of four men each, these groups being posted within sight of each other, 400 to 600 metres apart in an open country. In a closed country the outposts would be formed of as many groups as there are roads crossing the line, the lateral communications being patrolled by parties detached from these groups.

The supports are usually formed into two parties of equal strength: the leading party marches within sight of the scouts, and some 300 or 400 metres in rear of them, while the second party follows at the same distance in rear of the first. The squadron reserve is 1,500 metres (nearly a mile) behind the supports, and the regimental reserve the same distance in rear of the squadron reserves. A Cavalry regiment would thus have a depth of about 4 kilometres or 2½ miles.

Cavalry in Action.—It is considered that Cavalry charges should only be delivered under the following conditions:—(a), against hostile Cavalry which is badly supported by the fire of other arms; (b), against batteries of Artillery badly defended; (c), against Infantry which is either disorganised or can be taken by surprise; (d), when there is no other means of restraining a victorious enemy except by sacrificing the Cavalry.

The ordinary position of Cavalry during an action, in which it is not engaged, is in line of columns behind the flanks, or in rear of openings in the general line.

A Cavalry charge must always be preceded by a few scouts, generally two per squadron, but these men must rejoin before closing with the enemy. A portion of the force must always be kept in reserve, and the charge should be aimed either against the enemy's flank or in a direction oblique to his front.

Assuming that a body of Cavalry moves off at 1,200 metres from the enemy, it would trot up to 500 or 600 metres, then begin to gallop, and charge when 100 metres away.

When Cavalry charge in line, and the strength of the force allows of it, three échelons are formed, but a regiment only forms two.

When acting against Cavalry, a flank attack is, if possible, to

be made, and Cavalry must never stand to receive a hostile charge.

When acting against Artillery, efforts must be made to take it by surprise, the charge being directed against the flank or rear of the battery.

When Cavalry are called on to act on foot, they form four échelons, of which the two leading ones (skirmishers and supports) dismount. The third is formed of men who remain mounted, and the men of the 4th échelon hold the horses of those who have been dismounted.*

ARTILLERY TACTICS.

Artillery is attached either to Divisions or to Army Corps, but the proportion is not definitely fixed.

With its guns limbered up a battery forms line or column. In action the limbers form line 50 metres in rear of the guns, and the wagons 300 or 400 metres in rear of the limbers. The distance to be preserved between guns when in action is not laid down.

Artillery Fire.—2,500 to 3,000 metres are considered to be the longest ranges for Artillery under ordinary circumstances. Common shell is used for such ranges, and shrapnel for ranges below 2,500. Case is only used for ranges below 500 metres. As to rapidity of fire, it is considered that a battery of 6 guns should not fire more than one projectile every 15 or 20 seconds. For very rapid fire one in every 6 or 8 seconds.†

Artillery in Action.—There are two main parts for Artillery to play; to commence an action and to end it. For the first it takes up a position some 2,000 metres from the enemy's line, and for the latter it advances to about 1,000 metres. To enable the Artillery to perform the first of these duties it is given a forward position when on the march. Thus in an Army Corps of two Divisions half of the Artillery of the 1st Division would accompany the vanguard, and the other half would march behind the first battalion of the main body. The Corps Artillery would march between the two Divisions, and that of the 2nd Division either between the two brigades or behind the leading regiment or battalion of the 1st Brigade.

Range-finders are not in general use, the range on coming into action being usually ascertained by trial.

The Artillery of the attacking force moves up to the 2nd position (about 1,000 metres from the enemy) when the Infantry have closed to within 500 metres of the enemy's position, and from the points where it now comes into action it prepares for the assault about to be delivered.

If the assault be successful, the Artillery at once moves forward to the captured position and opens fire on the retreat-

* In the Chasseurs and Hussars every man carries a carbine; in the Lancers one-fourth of the men have carbines.

† The annual allowance for practice is 200 rounds per battery.

ing enemy. If the assault should fail, it is the duty of the Artillery to cover the retreat of the columns as they fall back.

It is laid down, that a battery in action is not to limber up and move to a fresh position unless this is at least 500 metres from where the battery had stood.

Formations of Large Bodies of Troops.

The unit in the Spanish Army is the Division, which, however, has no existence in peace time. Its normal composition is stated to be two brigades of Infantry, each of two regiments, with such a force of Cavalry, Artillery,* and Engineers as may be considered convenient. A Division is commanded by a Major-General, and each brigade by a Brigadier-General.

Two or more Divisions would constitute an Army Corps, the army of operations being composed of two or more corps.

The order of precedence of the Spanish troops, when on parade, is as follows :—

The Royal Halberdiers.
 Naval Forces.
 The 1st Infantry Regiment.
 Garrison Artillery.
 Infantry Regiments, Nos. 2 to 11 inclusive.
 Regiments of Sappers.
 The remainder of the Infantry Regiments.
 The Battalions of Rifles.
 The Reserve Regiments.
 The Infantry Academy.
 The Guardia Civil (if with colour).
 The Carabineros.
 The Guardia Civil (if without colour).
 Mountain and Field Artillery.
 The 24 Cavalry Regiments.
 The Independent Squadrons.
 The Remount Squadron.
 The Cavalry Academy.
 Mounted Carabineros and Guardia Civil.

MUSKETRY INSTRUCTION.

The Central School of Musketry is established at Toledo for the instruction of officers, non-commissioned officers and men. The course begins on the 1st September, and lasts for ten months. There are also rifle ranges near all the most important garrisons.

The annual allowance for practice is 100 rounds of ball-cartridge per man.

There are annual musketry competitions at 400 metres range

* A regiment of six batteries, each of six guns, would probably be allotted to the two Divisions of an Army Corps, or 18 guns per Division.

in each district, every Infantry battalion or Cavalry regiment sending two officers and eight men, and each battalion or regiment also sends to Madrid the officer and man who have shot best at the district meetings. At this central meeting the ranges are 400, 600, and 1,000 metres, and the following prizes are given to the successful competitors:—For the men, one prize of 250 pesetas (£10), ten of 125 pesetas (£5), and twenty-nine of 50 pesetas (£2), in each case accompanied by the privilege of a month's leave of absence. Each of the 40 officers who stand highest on the list receives a sword.

A special prize for officers and another for men is also given annually by the King.

The targets used consist of iron frames covered with linen. The height of the ordinary target is 2 metres (6 ft. 6 in.), and its width 60 centimetres (2 ft.).

Musketry practice in barracks with a reduced charge is also carried on for instruction in sighting.

MARCHES.

The ordinary rate of marching of the Spanish Infantry soldier is 120 paces per minute,* the length of the pace being 65 centimetres (25½ inches), or 4½ kilometres (2¾ miles) per hour.

For the other arms the rates are as follow:—

		Kilom. per hour.	Miles per hour.
Cavalry or Artillery at a walk	..	5	3
” ” at a trot	..	19 to 23	11½ to 14
” ” at a trot and walk		7½	4½

Marches are considered to be ordinary, sustained, or forced marches.

Ordinary marches are those not exceeding 32 kilometres (20 miles) per day, with a day's rest every 3rd or 4th.

Sustained marches—35 to 45 kilometres (22 to 28 miles) per day, with no days of rest.

Forced marches—over 45 kilometres (28 miles) per day.

As a rule a road is allotted to a Division. Infantry and cavalry march in fours, leaving the centre of the road clear. Artillery usually march in column of route, but on very wide roads in column of divisions.

The following spaces are left on the march:—

In rear of an infantry battalion, a cavalry battalion, or a battery of artillery, 70 paces.

* In rifle battalions the rate is 130 per minute.

Bivouacks and Cantonments.

As a rule Spanish troops bivouack only when close to the enemy and when employed on outpost duty.

Troops when cantoned must be broken up as little as possible; the smallest units being a battalion, a squadron, and a battery. All calculations as to the amount of accommodation which can be provided by a town or village are made by the officers of the General Staff, and the allotment of quarters is arranged by a Board composed as follows:—An officer of the General Staff as President, an officer from the Artillery Staff, and one from the Engineer Staff; a Staff Officer from each Division or independent unit; the Chief Quartermaster and the Divisional Quartermasters, an Adjutant from each Corps, and officials of the Intendance and Medical Departments. A small Cavalry escort accompanies the Board.

CHAPTER XX.

THE SPANISH NAVY.

Administration.

The Spanish Navy is under the Minister of Marine, a member of the Government, whose office is at Madrid. The Peninsula is divided into three Naval Districts—Ferrol, Cadiz, and Cartagena. The first extends from the mouth of the Bidassoa to that of the Miño (or Minho), the second from the mouth of the Guadiana to Cape de Gata, and the third from Cape de Gata to the French frontier, and includes the Balearic Isles.

In addition to these, there are two Colonial Naval Stations, viz., Habana and the Philippines, with a minor command at Puerto Rico.

The Minister of Marine is assisted by a Council consisting of an Admiral, a Vice-Admiral, two Rear-Admirals, a Civil Engineer, a 1st Class Captain, and a Secretary. The business of the office of the Minister of Marine is divided into the following branches:—

Personnel.
 Armament.
 Engineers (Naval Construction).
 Seamanship.
 Artillery.
 Marines.
 Accounts.
 Secretariat.

The personnel of the Navy is supplied by voluntary enlist-

ment, and also by conscription, young men between the ages of 18 and 24 being taken, and thus becoming exempt from service in the Army.

The period of service is three years afloat, but young men who have registered their names as naval volunteers, and at the age of 25 years have not been called up to serve, become free from all further liability. Exemption by purchase is also authorised, on the same terms as for the Army.

Ranks and Titles.

The ranks and titles in the Spanish Navy are as follows :—

Spanish title.	Corresponding Army rank.	English equivalent.
Almirante.....	Capitan-General ..	Admiral.
Vice Almirante	Teniente-General ..	Vice-Admiral.
Contra Almirante	Mariscal de Campo.	Rear-Admiral.
Capitan de Navio (1a Clase)	Brigadier	Captain.
Capitan de Navio (2a Clase)	Coronel	Captain.
Capitan de fragata	Teniente Coronel ..	Commander.
Teniente de Navio (1a Clase)	Comandante	Lieutenant.
Teniente de Navio	Capitan	Lieutenant.
Alferez de Navio	Teniente	Sub-Lieutenant.

Promotion is by seniority and selection. For promotion Sub-Lieutenants must serve afloat for two-thirds of their time, provided this time afloat is not less than four years; Lieutenants must serve four years afloat, and those of the 1st Class three years; Commanders and Captains must serve afloat for two years.*

Admirals are considered to be permanently on the active list, but other Naval officers retire at the following ages:—

Vice-Admirals at 72, with 12,500 pesetas (£500).

Rear-Admirals at 68, „ 10,000 „ (£400).

Captains of the 1st Class at 66, with 8,000 pesetas (£320).

Naval Uniforms.

In full dress, Naval officers wear a cocked hat, a frock coat of dark blue cloth with red lappels and collar, ornamented with gold lace, and buttons stamped with a crown and anchor, and blue trousers with a gold stripe.

In undress a frock coat and trousers without lace are worn, with a cap which has a white cover for summer.

The rank is shown in gold lace on the sleeve, as in the Army (see page 65).

* Two years is, as a rule, the maximum time for which an officer has command of a vessel, except on the Philippine Station, where the period is three years.

The dress of sailors is a blue cloth jacket and trousers and a felt cap.

In 1881 there were on the Active List of the Navy—

1	Admiral.
6	Vice-Admirals.
23	Rear-Admirals.
20	Captains of the 1st Class, or of relative rank.
41	" " 2nd " " "
89	Commanders.
100	Lieutenants, 1st Class.
224	" " 2nd "

The other branches of the naval personnel consist of the Naval Engineers, under an Inspector-General (ranking as a Vice-Admiral), the Marine Artillery, under a Vice-Admiral, and the Marine Infantry, under a Vice-Admiral (see page 134). There are also gunners, boatswains, machinists, and storekeepers.

In addition there are the following Naval Departments:—Intendance, Law, Medical, and Chaplain's.

The total strength of the Navy is fixed at 8,600, of whom 3,900 are Marine Infantry.

The vessels in the Spanish Navy are classed as follows:—

Ironclads.
Screw steamers:
1st Class, frigates.
2nd " corvettes.
3rd " schooners.
Paddle steamers:
1st Class.
2nd Class.
3rd Class.
Training ships.
Transports.

There are also a number of small vessels and dockyard craft.

Naval Ordnance.

The following table shows the various natures of ordnance in use in the Spanish Navy. Both muzzle-loading and breech-loading guns are used, the latter being all made on the Hontoria system. In these guns the breech is closed with a plug and interrupted screw, and the projectiles fired from them have copper bands to take the rifling.

Designation.	Material.	Weight of gun.		Calibre.	No. of Grooves.	Service charge.		Weight of shell.			Remarks.
		kilos.	cwts.			kilos.	lbs.	Palliser.	Common.	Segment.	
Woolwich 10-in. gun..	Iron	18,289	18 tons	25.4	7	20.4	44.48	400 lbs.	367 lbs.	..	Also fires Shrapnel and case. Converted on Palliser system from the 28 cm. S.B. gun.
" 9-in. " ..	Iron	12,700	12 tons	22.86	6	19.4	42.68	248 lbs.	250 lbs.	88.0 k.	
Barrios gun of 22 cm.	Iron	11,329	223.01	22.0	..	..	..	90 k.	89 k.	..
Woolwich gun of 8 in.	Iron	9,144	9 tons	20.82	4	13.6	29.92	176.5 lbs.	180 lbs.	..	Also fires Shrapnel and case. Converted on Palliser system from the 22 cm. S.B. gun.
Barrios 18 cm. gun ..	Iron	6,096	120.0	18.0	..	..	..	51.25 k.	48.15 k.	50.75 k.
Short 16 cm. gun (No. 8)	Iron	2,860	56.3	16.11	3	3.0	6.6	34.36 k.	29.5 k.	30.25 k.	
Parrot 100-pr. of 16 cm.	Iron	4,400	86.6	16.25	9	4.536	9.97	..	45.0 k.	..	Cast on Rodman principle, with double steel tube. Ditto Converted from 20 cm. gun. Cast on Rodman principle, with double steel tube. Converted. Single steel tube, Ditto ditto Solid cast steel.
" 60-pr. of 18 cm.	Iron	2,470	48.6	12.46	7	2.72	5.98	..	27.3 k.	..	
Short 12 cm. gun ..	Bronze	948	18.6	12.22	6	1.7	3.74	..	10.4 k.	..	
Short 8 cm. gun ..	Bronze	100	1.96	8.65	6	0.3	0.65	..	3.9 k.	..	
20 cm. gun (Hontoria)	Iron	11,000	216.5	20.0	46	28.0	61.6	88.0 k.	74.0 k.	..	
18 "	Iron	8,000	157.4	18.0	42	20.4	44.88	61.58 k.	54.6 k.	..	
18 "	..	6,150	121.0	18.0	42	14.5	31.90	61.43 k.	..	..
16 "	Iron	5,700	112.2	16.0	38	14.4	31.68	42.5 k.	37.96 k.	..	
16 "	..	3,880	76.3	16.0	38	10.0	22.0	42.5 k.	29.0 k.	..	
16 "	..	2,750	54.1	16.1	38	7.5	16.5	..	16.4 k.	..	
12 "	Steel	1,420	28.0	12.0	30	6.0	13.2	..	7.0 k.	..	
9 "	Steel	600	11.8	9.0	22	2.55	5.61	..	3.28 k.	..	
7 "	Steel	100	1.96	7.0	18	0.5	1.1	..	..	..

Muzzle loading.

Breech loading.

In addition to these there are a considerable number of smooth-bore guns in use in the Spanish Navy, varying from the 28-cm. gun of 10,692 kilogrammes to the 16-cm. gun of 1,288 kilogrammes.

Torpedoes do not appear to form part of the armament of a Spanish man-of-war, but a school of instruction has been established at Cartagena, and 100 Swartzkopf fish torpedoes were purchased at Kiel in 1882.

Naval Engineering.

This branch includes the management of the Dockyards, and the preparation of plans for all works of construction and repair required, both ashore and afloat. The branch is under a Director-General (Rear-Admiral), and consists of about 70 members. Promotion is by seniority.

Marine Artillery.

This branch attends to the preparation of plans for artillery matériel of all sorts, and has charge of the workshops where naval carriages, arms, and equipment are constructed. Under this branch are also the parks, laboratories, and powder magazines required for the Navy, as well as experimental batteries.

The branch is in charge of a Rear-Admiral, and consists of about 66 members. Promotion is by seniority.

Gunners and gunners' mates, about 300 in all, are under the Marine Artillery branch.

Marine Infantry.

This corps consists of three regiments, each of two battalions, three companies of Arsenal Guards, and a company of clerks. A regiment of Marine Infantry and a company of Arsenal Guards are allotted to each of the naval districts in the Peninsula* (Ferrol, Cadiz, and Cartagena), and each of these districts has also a reserve and a depôt battalion, whose relation to the active regiments is the same as in the case of Infantry of the Line.

A battalion of Marines has the same nominal establishment as an Infantry battalion, but its effective in peace time is 458.

On mobilisation the reserve and depôt battalions would each be raised to a strength of 1,000 men, and would be formed into a brigade with the Marine regiment of the district. On a war footing the strength of the corps would thus amount to about 12,000 men.

* There are also 2 battalions of Marines and a company of Arsenal Guards in Cuba, and 2 companies of Marines (one of them Natives), and a company of Arsenal Guards in the Philippines.

Naval Arsenals and Dockyards.

In the Peninsula there are three, viz., at Carraca (near Cadiz), at Ferrol, and at Cartagena. Abroad there are arsenals at Habana, at Puerto Rico, and at Cavite in the Philippines.

Scientific and Educational Establishments for the Navy.

Three scientific establishments are maintained, viz., at Madrid, the Hydrographical Institution for the production of Charts, and the Naval Museum, with a library attached to it; and on the Isle of Leon, near Cadiz, the Astronomical Observatory of San Fernando, for the publication of the Nautical Almanack, &c.

The educational establishments are as follows:—The Naval School at Ferrol, kept up on board the frigate “Asturias,” for lads between 13 and 18 years of age.

The Marine Infantry Academy consists of four sections, viz., the companies of young soldiers; candidates for the rank of corporal; sergeants who are candidates for the rank of officer; and cadets. The latter class are admitted by competition, and must be between the ages of 16 and 22.

The Marine Artillery Academy.—This academy is established at Cadiz, and admission is gained by competition.

The School of Engineers.—This is at Ferrol, and admission is gained by competition, the limits of age being between 18 and 26.

The Academy of Naval Administration.—This academy admits by competition youths between 15 and 21, who are eventually appointed Paymasters’ Assistants, &c.

The School of Naval Apprentices.—This school is on board the corvette “Mazarredo,” stationed at Ferrol. The number of apprentices is fixed at 200. They are taken at from 14 to 17 years of age, and remain two years in the school.

LIST OF SHIPS IN THE SPANISH NAVY.

Description.	Class.	Name.	Date of construction.	Tonnage.	Horse power (nominal).	Speed in knots.	Armament.	Total No. of guns.	Remarks.
Ironclad frigate ..	1st	Vitoria ..	1867	7,100	1,000	14.1	4 16 cm., 3 8-in., 12 7-in.	21	Thickness of armour, 5½ in.
" ..	"	Numancia ..	1864	7,050	1,000	12.9	6 10-in., 3 8-in.	17	Thickness of armour, 5 in.
" ..	"	Sagunto ..	1876	6,300	1,000	12.5	10 8-in.	11	Thickness of armour, 6 in.
" ..	"	Zaragoza ..	1867	5,400	800	11	6 9-in., 3 7-in.	17	Thickness of armour, 5½ in.
" corvette ..	"	Mendez-Núñez ..	1861	3,250	500	6.5	4 9-in., 2 10-in.	6	Thickness of armour, 4½ in.
Unarmoured screw frigate.	"	Villa de Madrid ..	1862	3,000	800	12	8 6½-in., 30 8-in.	42	
" ..	"	Almansa ..	1864	3,000	600	11.8	8 6½-in., 30 8-in.	33	
" ..	"	Navas de Tolosa ..	1865	3,000	600	11.8	8 6½-in., 32 8-in.	40	
" ..	"	Gerona ..	1864	3,000	600	10.5	1 6½-in., 18 8-in.	26	
" ..	"	Asturias ..	1857	2,450	360	..	..	5	Training ship.
" ..	"	Carmen ..	1861	1,915	600	..	..	25	
" ..	"	Lealdad ..	1860	3,074	500	9	..	23	
" ..	"	Concepcion ..	1860	2,110	600	..	..	25	
" ..	"	Blanca ..	1859	2,500	360	..	..	25	
" ..	"	Castilla ..	Building	3,600	1,100	15	..	8	
" ..	"	Aragon ..	"	3,600	"	"	..	"	
" ..	"	Navarra ..	"	3,600	"	"	..	"	
Paddle frigate ..	"	Ciudad de Cadiz ..	1850	1,567	500	12	..	6	Dismantled iron-clad frigate, thickness of armour, 4 in.
" ..	"	Isabel la Católica ..	1850	1,567	500	12	..	4	
Ironclad monitor ..	3rd	Puigcerda ..	1874	524	260	..	..	3	Thickness of armour, 4½ in.
Flotting battery ..	3rd	Arapiles ..	1864	3,547	..	8.2	..	3	

LIST OF SHIPS IN THE SPANISH NAVY.

Description.	Class.	Name.	Date of construction.	Tonnage.	Horse power (nominal).	Speed in knots.	Armament.	Total No. of guns.	Remarks.
Floating battery	3rd	Duque de Tetuan ..	1874	600	210 (ind.)	6	.. ..	5	Thickness of armour, 4 in.
Unarmoured screw frigate.	2nd	Gravina	1881	1,089	1,600 (ind.)	14	6-in. Armstrongs.	3	
"	"	Velasco	1881	..	1,600 (ind.)	12.9	.. ..	3	
Cruiser (screw)	"	Maria de Molina ..	1877	1,677	300	10.5	6½-in. guns.	10	
"	"	Jorge Juan	1876	920	250	13.5	.. ..	3	
"	"	Sanchez Barcaiztegui	1876	920	250	13.25	.. ..	3	
"	"	Tornado	Purchased 1866	2,050	300	10.4	.. ..	6	
"	"	Consuelo	1859	960	200	..	.. ..	3	
"	"	Vencedora	1881	680	160	9	.. ..	3	
"	"	Diana	1872	713	160	..	.. ..	5	
"	"	Africa	1862	680	160	9	.. ..	3	
"	"	Bazan	1873	..	115	..	.. ..	2	
"	"	Fernando el Cathólico	1874	500	550	12	.. ..	3	
Despatch boat	3rd	Marqués del Duero ..	1874	500	550	12	.. ..	3	
"	"	San Quintín	Purchased 1869	1,300	300	..	.. ..	2	
Transport (screw)	2nd	San Francisco de Borja ..	Purchased 1859	1,300	300	..	.. ..	2	
"	"	Marques de la Victoria ..	Purchased 1859	1,200	160	..	.. ..	2	
"	"	Patíño	Purchased 1859	1,200	160	..	.. ..	2	
"	"	San Antonia.. ..	1859	600	90	..	.. ..	1	
"	"	Legaspi	1880	480	..	..	.. ..	..

Besides the above, there are seven paddle steamers, carrying from 2 to 6 guns each, 18 screw steamers carrying from 1 to 8 guns each, 29 gunboats carrying 1 gun each, and 21 light gunboats carrying 1 or 2 guns each. In addition there are various tug steamers and dockyard craft.

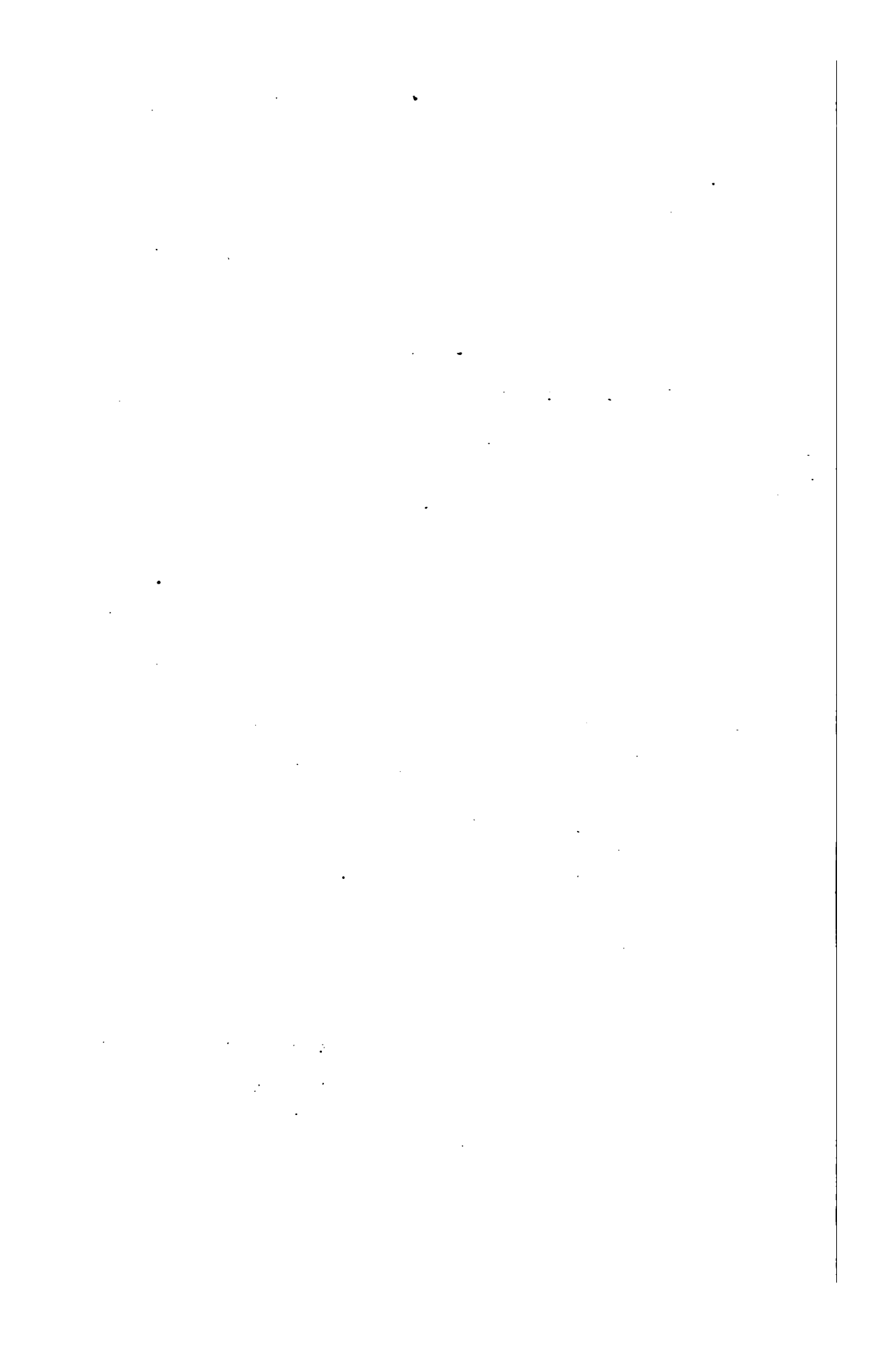
LIST OF SHIPS IN THE SPANISH NAVY.

Description.	Class	Name.	Date of construction.	Tonnage.	Horse power (nominal).	Speed in knots.	Armament.	Total No. of guns.	Remarks.
Ironclad frigate ..	1st	Vitoria ..	1867	7,100	1,000	14.1	4 16 cm., 3 8-in., 12 7-in.	21	Thickness of armour, 5½ in.
" ..	"	Numancia ..	1864	7,080	1,000	12.9	6 10-in., 3 8-in.	17	Thickness of armour, 5 in.
" ..	"	Sagunto ..	1876	6,300	1,000	12.5	10 8-in.	11	Thickness of armour, 6 in.
" ..	"	Zaragoza ..	1867	5,400	800	11	6 9-in., 3 7-in.	17	Thickness of armour, 5½ in.
" corvette ..	"	Mendez-Núñez ..	1861	3,250	500	6.5	4 9-in., 2 10-in.	6	Thickness of armour, 4½ in.
Unarmoured screw frigate.	"	Villa de Madrid ..	1862	3,000	800	12	8 6½-in., 30 8-in.	42	
" ..	"	Almansa ..	1864	3,000	600	11.8	8 6½-in., 30 8-in.	38	
" ..	"	Navas de Tolosa ..	1865	3,000	600	11.8	8 6½-in., 32 8-in.	40	
" ..	"	Gerona ..	1864	3,000	600	10.5	1 6½-in., 18 8-in.	26	
" ..	"	Asturias ..	1857	2,450	360	..	..	5	Training ship.
" ..	"	Carmen ..	1861	1,915	600	..	..	25	
" ..	"	Lealad ..	1860	3,074	500	9	..	23	
" ..	"	Concepcion ..	1860	2,110	600	..	..	25	
" ..	"	Blanca ..	1859	2,500	360	..	..	25	
" ..	"	Castilla ..	Building	3,600	1,100	15	..	8	
" ..	"	Aragón ..	"	3,600	"	"	..	"	
" ..	"	Navarra ..	"	3,600	"	"	..	"	
Paddle frigate ..	"	Ciudad de Cadiz ..	1850	1,567	500	12	..	6	Dismantled iron-clad frigate, thickness of armour, 4 in.
" ..	"	Isabel la Católica ..	1850	1,567	500	12	..	4	
Ironclad monitor ..	3rd	Puigcerda ..	1874	524	260	3	Thickness of armour, 4½ in.
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Unarmoured screw frigate.	2nd	Gravina	1881	1,089	1,600 (ind.)	14	6-in. Armstrongs.	3	
"	"	Velasco	1881	..	1,600 (ind.)	12.9	.. ..	3	
Cruiser (screw)	"	Maria de Molina	1877	1,677	300	10.5	6½-in. guns.	10	
"	"	Jorge Juan	1876	920	250	13.5	.. ..	3	
"	"	Sanchez Barcaizategui	1876	920	250	13.5	.. ..	3	
"	"	Tornado	Purchased 1866	2,050	300	10.4	.. ..	6	
"	"	Consuelo	1859	960	200	..	.. ..	3	
"	"	Vencedora	1861	680	160	9	.. ..	3	
"	"	Diana	1872	713	160	—	.. ..	5	
"	"	Africa	1862	680	160	9	.. ..	3	
"	"	Bazan	1873	..	115	..	.. ..	2	
Despatch boat	3rd	Fernando el Cathólico	1874	500	550	12	.. ..	3	
"	"	Marqués del Duero	1874	500	550	12	.. ..	3	
Transport (screw)	2nd	San Quintín	Purchased 1869	1,300	300	..	.. ..	2	
"	"	San Francisco de Borja	Purchased 1859	1,300	300	..	.. ..	2	
"	"	Marques de la Victoria	Purchased 1859	1,200	160	..	.. ..	2	
"	"	Patño	Purchased 1859	1,200	160	..	.. ..	2	
"	"	San Antonia	1859	600	90	..	.. ..	1	
"	"	Legaspi	1880	480	..	..	.. ..	1	

Besides the above, there are seven paddle steamers, carrying from 2 to 6 guns each, 18 screw steamers carrying from 1 to 8 guns each, 29 gunboats carrying 1 gun each, and 21 light gunboats carrying 1 or 2 guns each. In addition there are various tug steamers and dockyard craft.



APPENDICES.

APPENDIX A.—TABLE I.

Military Divisions of Home Army.

Captaincy-General.	Military Governments.		Military Commands: Forts and Minor Posts.
	Provinces.	Garrisons and fortresses.	
New Castille. H.Q. Madrid.	Madrid. Ciudad Real. Guadalajara. Segovia. Toledo. Cuenca.	Madrid.	
Cataluña. H.Q. Barcelona.	Barcelona. Gerona. Lérida. Tarragona.	Barcelona. Castle of Monjuich. Cardona. Town and Castle of Figueras. Gerona. Hostalrich. Seo de Urgel. Tarragona. Tortosa.	Fort of San Carlos: Barcelona. Tower of Solsona: Seo de Urgel. Castle of Seo de Urgel. Principal Castle of Lérida. Castle of Gardeny: Lérida. Fort of San Juan: Tortosa. The Medas Islands.
Andalucía. H.Q. Sevilla.	Sevilla. Cadiz. Huelva. Córdoba. — The Campo of Gibraltar.*	Sevilla. Cadiz. Algeciras. Tarifa. Castle of San Sebastian: Cadiz. Castle of Santa Catalina: Cadiz.	Linea de Gibraltar. Castle of Puntales: Cadiz. Castle of Sancti Petri: Cadiz. Fort of San Fernando. Isla Verde.
Valencia. H.Q. Valencia.	Valencia. Alicante. Múrcia. Castellon. Albacete.	Valencia. Cartagena. Castle of Galeras: Cartagena. Castle of St. Barbara: Alicante. Morella. Peñíscola. Requena.	Castle of Atalayas: Cartagena. Castillo del Moro: Cartagena. Castle of San Julian: Cartagena.
Galicia. H.Q. Coruña.	Coruña. Pontevedra, Vigo. Orense. Lugo.	Coruña. Ferrol. Castle of San Felipe: Ferrol. Vigo. Castle of San Anton: Coruña.	Castle of San Diego: Coruña. Fort of Salvatierra.

* Not a representative Province.

Captaincy-General.	Military Governments.		Military Commands : Forts and Minor Posts.
	Provinces.	Garrisons and fortresses.	
Aragon. H.Q. Zaragoza.	Zaragoza. Huesca. Teruel.	Zaragoza. Jaca. Monzon.	Alcañiz. Castle of Mequinenza.
Granada. H.Q. Granada.	Granada. Málaga. Almería. Jaen.	Granada. Málaga. Alhucemas. Chafarinas Islands. Melilla. Peñon de la Go- mera.	Castle of Gibralfaro : Málaga.
Old Castille. H.Q. Valladolid.	Valladolid. Palencia. Avila. Leon. Oviedo. Salamanca. Zamora.	Valladolid. Ciudad Rodrigo.	Bejar. Town of Sanabria.
Estremadura. H.Q. Badajoz.	Badajoz. Cáceres.	Badajoz. Alcántara.	Albuquerque. Castle of Valencia de Alcántara. Castle of San Cristobal : Badajoz.
Navarre. H.Q. Pamplona.	Navarre. Estella and its territory.*	Pamplona. The Citadel of Pamplona.	
The Biscayan Pro- vinces. H.Q. Vitoria.	Alava. Guipúzcoa. Viscaya.	Vitoria. Castle "de la Mota : " San Sebastian.	Irún.
Búrgos. H.Q. Búrgos.	Búrgos. Logroño. Santander. Soria.	Búrgos. Santander. Fortress of San- tander. Logroño.	Castle of Búrgos. Fort Rastrillar : Laredo.
The Balearic Is- lands. — H.Q. Palma.	Mallorca. Menorca. Ibiza.	Palma. Mahon. Fortress de la Mola.	Castle of Belver : Mal- lorca. Castle of Fornells : Menorca. Castle of San Carlos : Mallorca. The Island of Cabrera.
The Canary Is- lands. — H.Q. Santa Cruz de Tenerife.	Tenerife. Great Canary.	Santa Cruz : Tenerife. Las Palmas.	Castle of Paso-Alto. " San Cristobal. " San Francisco del Risco. Santa Cruz de Orotava.
	General Command of Ceuta.	Ceuta. Castle del Hacho.	Fort Isabel II. Fort Prince Alfonso.

* Not a representative Province.

APPENDIX A.—TABLE II.

Military Divisions of the Colonial Army.

CUBA.

Districts.	Military Com- mands.	Artillery Com- mands.	Engineer Com- mands.
Santiago de Cuba. Holguin. Pinar del Rio. Habana. Santa Clara. Puerto Principe.	Alto-Songo. Bejucaí. Baracoa. Bayamo. Cobre. Caney. Cienfuegos. Guanabacoa. Güines. Guanajay. Guantánamo. Isla de Pinos. Júcaro. Manzanillo. Palma Soriano. Puerto Padre. Remedios. San Antonio de los Baños. San Cristóbal. Sagua de Tánamo. Santa Isabel de las Lajas. Trinidad I. La Trocha.	Cabaña y Morro. Matanzas. Santa Clara. Puerto Principe. Santiago de Cuba. Baracoa.	Habana. Santiago de Cuba. Manzanillo. Holguin. Santa Clara. La Trocha del Júcaro. Puerto Principe. Matanzas. Pinar del Rio.

PUERTO RICO.

Military Governments.		Artillery Com- mands.	Engineer Com- mands.
Departments.	Fortresses.		
Mayaguez. Ponce. Island of Vi-ques. Arecibo. Aguadilla. Humacao.	San Juan de Puerto Rico. San Cristóbal. El Morro.	.. ..	San Juan. Ponce.

THE PHILIPPINE ISLANDS.

Military Governments.		Artillery Com- mands.	Engineer Com- mands.
Departments.*	Fortresses.		
Luzon. Marianas Islands. Visayas Islands. Mindanao. Jolo.	Manila. Cavite. Marianas. Zamboanga.	Manila. Mindanao.	Manila. Cavite. Zamboanga. Mindanao.

* There are also a very large number of officers employed as politico-military Governors of the various islands composing these Departments.

APPENDIX B.—TABLE I.
Infantry.

Establishment.	Combatants.																							Non-combatants.		Grand total.	Animals.									
	Officers.						Non-commissioned officers.						Drummers and Buglers.					Privates.						Officers.	N-C. Officers and men.		Officers.	N.-C. Officers and men.	Horses.	Mules.						
	Field.		Other commissioned.				Regimental.		Battalion.		Company.		1st Class.		2nd Class.		Total.	Surgeons.	Chaplains.	Band.	Armourers.	Total.														
	Colonels.	Lieut.-Colonels.	Majors.	Captains.	Subalterns.	Adjutants.	Administrative.	Bergerants-Major.	Bergerants.	Corporals.	Lance-Corporals.	Regimental.	Battalion.	Company.	1st Class.	2nd Class.							Total.													
	Regiment of In- fantry .. { Peace* ..	1	2	4	10	38	2	2	4	10	24	40	40	40	1	2	26	32	1,424	1,660	2	2	2	2	2	2	2	2	2	2	43	65	1,638	7	2	
	.. { War† ..	1	2	4	8	32	2	2	4	8	24	40	40	40	1	2	24	32	1,824	2,048	2	2	2	2	2	2	2	2	2	2	37	57	2,334	7	16	
Battalion .. { Peace* ..	1	1	2	5	19	1	2	5	12	20	20	20	20	..	1	13	16	712	829	1	1	1	1	1	1	1	1	1	1	31	32	828	3	1		
.. { War† ..	..	..	1	4	16	1	2	4	12	20	20	20	..	..	1	12	16	912	1,023	1	1	1	1	1	1	1	1	1	1	31	28	1,026	3	8	
Rifles .. { Peace* ..	..	..	1	3	4	12	1	4	..	..	..	..	..	..	..	..	..	41	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.. { War† ..	..	..	1	4	8	1	1	..	..	..	..	..	..	..	..	..	..	31	19	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Reserve battalion (Peace) ..	..	..	1	1	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Depôt battalion (Peace) ..	..	..	1	3	4	12	1	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Regiment of Native Infantry	1	1	4	1
of Philippines	1	6	24	2	1	6	24	36	30	30	30	1	..	17	..	686	785	1	1	1	1	1	1	1	1	1	1	3	37	751

* Inclusive of Depôt Companies. † Exclusive of Depôt Companies. ‡ One of these acts as clerk.
§ Actual strength (1862) 850. || Actual strength (1862) 484.

APPENDIX B.—TABLE II.
Cavalry.

Establishment.	Combatants.																Non-combatants.			Grand total.		Animals.							
	Officers.						Non-commissioned officers.						Troopers.				Officers.			N.C. Officers and men.		Horses.	Mules.						
	Field.			Other commissioned.			Sergeants-Major.		Sergeants.		Corporals.		Lance-Corporals.		Troop.		N.C. officers.		Troop.		Officers.			Troop.					
	Colonels.	Lieut.-Colonels.	Majors.	Captains.	Subalterns.	Adjutants.	Administrative staff.	1	2	3	4	1	2	3	4	1	2	3	4	1		2	3		4				
Royal Escort Squadron ..	1	1	2	3	6	2	..	4	4	8	8	8	8	1	4	4	120	..	161	1	1	1	1	22	109	..	1		
Regiment of Cavalry of the Line	1	1	3	9	20	1	2	4	16	32	32	32	32	2	16	16	16	362	637	1	4	4	4	44	502	45	830	..	
Depôt Squadron (Peace) ..	..	..	1	1	3	..	..	1	2	2	2	2	2	..	1	2	..	14	23	..	..	..	..	5	18	5	..	..
Regiment of Reserve Cavalry (Peace)	1	1	2	5	10	..	..	4	4	8	8	8	8	1	4	4	..	17	48	..	..	..	..	19	29	..	..	..
Independent Squadron ..	..	..	1	2	7	1	..	1	4	8	8	8	8	1	4	4	4	76	118	1	1	1	1	14	110	14	94	..
Riding Establishment	1	2	4	1	1	2	6	8	8	8	8	1	4	4	..	168	216	5	19	202	19	130	..
School of Farriers ..	..	..	1	1	4	10	1	1	6	8	8	8	8	1	4	4	..	218	265	..	8	..	..	26	247	20	100	..
Remount Establishment..	1	1	1	2	7	1	..	1	11	11	8	8	8	1	3	4	4	108	159	1	4	4	..	18	150	22	29	8	
Stud Depôt ..	..	..	1	1	1	1	..	1	4	4	4	4	4	..	2	..	..	90	118	1	1	1	1	16	108	16	100	..

APPENDIX B.—TABLE III.

Artillery.

Establishment.	Combatants.												Non-combatants.										Animals.												
	Officers.					N.C. Officers.					Trainers and Drivers.		Officers.					N.C. Officers and Men.					Grand Total.		Horses.			Mules.							
	Field.		Other Commissioned.			N.C. Officers.		Trainers and Drivers.		Officers.					N.C. Officers and Men.					Grand Total.		Horses.			Mules.										
Colonels.	Lieut.-Colonels.	Majors.	Captains.	Subalterns.	Adjutants.	Administrative Staff.	Sergeants-Major.	Sergeants.	Corporals.	2nd Corporals.	N.C. Officers.	Battery.	1st Class.	2nd Class.	Total.	Surgeons.	Veterinary Surgeons.	Chaplains.	Bidding Masters.	Band.	Armourers.	Farter-ascendants.	Other Artillery.	Total.	Officers.	N.C. Officers and Men.	Grand Total.	Officers.	Troop.	Drayt.	Pack.	Guns.			
1	1	2	8	24	4	4	8	16	40	40	2	16	48	1,720	877	5	...	2	...	38	2	...	...	44	47	47	5	...	...	...	...	...	...	...
1	1	3	8	24	4	4	8	40	56	56	2	24	96	664	045	2	...	2	...	38	2	...	...	44	47	2,082	5	...	...	...	...	...	...	...
1	1	3	...	...	2	2	...	...	...	...	...	...	...	...	11	1	5	1	1	...	...	...	...	8	17	12	18	2	...	...	...	...	...	...
1	1	3	...	...	2	2	...	...	...	...	...	...	...	...	46	1	6	1	1	...	...	...	...	9	18	61	20	15	6	...	...	...	...	...
...	...	...	1	3	...	...	1	3	7	10	...	2	4	179	102	...	...	...	...	...	...	...	...	3	6	104	4	14	42	...	...	...	...	...
...	...	...	1	3	...	...	1	4	10	10	...	3	10	168	114	...	...	...	...	...	...	...	...	3	6	154	5	19	110	...	...	...	...	...
...	...	...	1	3	...	...	1	3	7	6	...	2	6	128	168	...	...	...	...	...	...	...	...	3	6	120	4	14	60	...	...	...	...	...
...	...	...	1	3	...	...	1	3	4	10	...	3	10	128	168	...	...	...	...	...	...	...	...	3	6	174	5	19	140	...	...	...	...	...
...	...	...	1	3	...	...	1	3	8	7	...	2	6	78	107	...	...	...	...	...	...	...	...	3	6	110	4	14	60	...	...	...	...	...
...	...	...	1	3	...	...	1	3	10	10	...	3	14	140	187	...	...	...	...	...	...	...	...	3	6	182	5	19	140	...	...	...	...	...
...	...	...	1	2	...	...	1	4	7	14	...	1	8	112	163	1	4	1	1	...	...	...	...	3	6	10	5	6	...	...	...	...	...	...
...	...	...	1	2	...	...	1	4	7	14	...	1	8	112	163	1	4	1	1	...	...	...	...	3	6	10	5	6	...	...	...	...	...	...
...	1	1	1	4	7	14	...	1	8	112	163	1	4	1	1	3	6	10	5	6
...	1	1	1	4	7	14	...	1	8	112	163	1	4	1	1	3	6	10	5	6
...	1	1	1	4	7	14	...	1	8	112	163	1	4	1	1	3	6	10	5	6
...	1	1	1	4	7	14	...	1	8	112	163	1	4	1	1	3	6	10	5	6
...	1	1	1	4	7	14	...	1	8	112	163	1	4	1	1	3	6	10	5	6

* Only in Depot Mountain Battery.

APPENDIX B.—TABLE IV.

Engineers.

Establishment.	Combatants.										Non-combatants.										Grand Total.		Animals.														
	Officers.					Privates.					Officers.					N.C. Officers and Men.					Horses.		Mules.	Pack.	Troop.	Officers.	N.C. Officers and Men.										
	Field.		Other Com-missioned.			Trun-peters.		2nd Class.			1st Class.			Surgeons.		Veterinary Surgeons.		Chaplains.		Biding Masters.		Band.						Armourers.		Harness Makers.		Kartler-Sergeants.		Sactristan.		Saddlers.	
	Colonels.	Lieutenant-Colonels.	Majors.	Capitans.	Subaltarns.	Adjutants.	Administrative Staff.	Sergants-Major.	Sergants.	Corporals.	Lance-Corporals.	Regimental and Battalion.	Company.	1st Class.	2nd Class.	Total.	Surgons.	Veterinary Surgeons.	Chaplains.	Biding Masters.	Band.	Armourers.	Harness Makers.	Kartler-Sergeants.	Sactristan.	Saddlers.	Smiths.	Other Artificers.	Officers.	Total.	Officers.	Total.	Officers.	Troop.	Mules.		
1	1	2	10	28	2	4	10	48	48	64	3	32	48	319	621	2	1	2	...	40	2	...	4	1	2	...	4	4	144	202	54	760	9	...	12	...	
1	1	2	8	32	2	4	8	64	64	64	3	32	64	1,660	1,910	2	4	2	...	40	2	...	5	1	10	...	4	144	221	59	9,072	6	...	96	...		
...	1	2	4	12	1	2	4	24	32	32	1	16	32	364	527	1	2	1	...	...	...	...	...	...	...	...	...	72	88	27	683	27	...	328	...
...	1	2	4	12	1	2	4	38	32	32	1	16	32	580	707	1	2	1	...	...	...	...	...	...	...	...	...	72	187	127	767	27	...	186	...

* With Depot Companies. † Without Depot Companies.

Reserve Infantry—*continued.*

Military District.	Province.	No. of Battalion.	Station.	Associated Line Battalion.
Old Cas- tille.	Avila ..	106	Avila	9th Rifle Battalion.
	Palencia ..	107	Palencia	19th " " "
	Zamora ..	108	Zamora	1st Batt., 6th Regt.
		109	Toro	2nd " " "
	Leon ..	110	Leon	1st Batt., 30th Regt.
		111	Astorga	2nd " " "
		112	Villafranca del Bierzo ..	18th Rifle Battalion.
		113	Oviedo	1st Batt., 38th Regt.
	Oviedo ..	114	Cangas de Onís	2nd " " "
		115	Cangas de Tineo	1st " 2nd "
		116	Gijon	2nd " " "
		117	Pola de Lena	1st " " "
		118	Luarca	2nd " " "
Extrema- dura.	Badajoz ..	119	Badajoz	1st Batt., 13th Regt.
		120	Zafra	2nd " " "
		121	Villanueva de la Serena..	1st " 60th "
	Cáceres ..	122	Merida	2nd " " "
		123	Cáceres	1st " 17th "
		124	Plasencia	2nd " " "
Navarre.	Navarre ..	125	Pamplona	1st Batt., 54th Regt.
		126	Tafalla	2nd " " "
		127	Tudela	3rd Rifle Battalion.
Búrgos.	Búrgos ..	128	Búrgos	1st Batt., 1st Regt.
		129	Aranda de Duero	2nd " " "
	Logroño ..	130	Miranda de Ebro	1st " 56th "
		131	Logroño	2nd " " "
	Soria ..	132	Soria	8th Rifle Battalion.
	Santander	133	Santander	1st Batt., 5th Regt.
134		Santoña	2nd " " "	
The Biscayan Provinces.	Alava ..	135	Vitoria	1st Batt., 32nd Regt.
	Vizcaya ..	136	Bilbao	2nd " " "
	Guipúzcoa	137	San Sebastian	1st " 41st "
		138	Vergara	2nd " " "
The Balearic Isles.	Balearic Isles ..	139	Palma de Mallorca ..	1st Batt., 59th Regt.
		140	Inca	2nd " " "

APPENDIX C.—TABLE II.

Reserve Infantry.

Table showing Reserve and Depôt Battalions corresponding to the Various Units of the Standing Army.

No. of Line Regt.	Corresponding Reserve and Depôt Battalions.	No. of Line Regt.	Corresponding Reserve and Depôt Battalions.	No. of Line Regt.	Corresponding Reserve and Depôt Battalions.
1st ..	128 and 129	21st ..	102 and 103	41st ..	137 and 138
2nd ..	115 " 116	22nd ..	9 " 10	42nd ..	40 " 41
3rd ..	65 " 66	23rd ..	117 " 118	43rd ..	38 " 39
4th ..	31 " 32	24th ..	74 " 75	44th ..	104 " 105
5th ..	133 " 134	25th ..	70 " 71	45th ..	33 " 34
6th ..	108 " 109	26th ..	78 " 79	46th ..	19 " 20
7th ..	28 " 29	27th ..	76 " 77	47th ..	59 " 60
8th ..	13 " 14	28th ..	43 " 44	48th ..	96 " 97
9th ..	35 " 36	29th ..	87 " 88	49th ..	80 " 81
10th ..	89 " 90	30th ..	110 " 111	50th ..	92 " 93
11th ..	57 " 58	31st ..	61 " 62	51st ..	53 " 54
12th ..	1 " 2	32nd ..	135 " 136	52nd ..	15 " 16
13th ..	119 " 120	33rd ..	11 " 12	53rd ..	48 " 49
14th ..	17 " 18	34th ..	22 " 23	54th ..	125 " 126
15th ..	98 " 99	35th ..	94 " 95	55th ..	3 " 4
16th ..	7 " 8	36th ..	67 " 68	56th ..	130 " 131
17th ..	123 " 124	37th ..	72 " 73	57th ..	45 " 46
18th ..	26 " 27	38th ..	113 " 114	58th ..	63 " 64
19th ..	5 " 6	39th ..	84 " 85	59th ..	139 " 140
20th ..	51 " 52	40th ..	55 " 56	60th ..	121 " 122

No. of Rifle Battalion.	Corresponding Reserve and Depôt Battalion.	No. of Rifle Battalion.	Corresponding Reserve and Depôt Battalion.	No. of Rifle Battalion.	Corresponding Reserve and Depôt Battalion.
1st ..	37	8th ..	132	15th ..	83
2nd ..	86	9th ..	106	16th ..	69
3rd ..	127	10th ..	24	17th ..	100
4th ..	21	11th ..	82	18th ..	112
5th ..	101	12th ..	25	19th ..	107
6th ..	47	13th ..	12	20th ..	80
7th ..	91	14th ..	50		

APPENDIX C.—TABLE III.

Reserve Infantry.

Composition of Reserve Infantry Brigades.

Military District.	No. of Brigade.	Brigade Headquarters.	Nos. of Reserve and Depôt Battalions.
New Castilla.	1st	Ocaña	1
			14
	2nd	Jetafe	2
			4
	3rd	Avila	5
			106
	4th	Tarancon	7
		8	
	5th	Alcázar	9
			10
	6th	Guadalajara	3
			11
	7th	Talavera	12
			13
Cataluña.	8th	Barcelona	15
			16
	9th	Mataró	17
			18
	10th	Villafranca del Panadés	19
			20
	11th	Vich	21
			24
	12th	Figuera	22
		23	
	13th	Tarragona	25
			26
	14th	Reus	27
			28
	15th	Tremp	29
			30
Andalucía.	16th	Carmona	31
			32
	17th	Utrera	33
			34
	18th	Arcos de la Frontera	35
			36
	19th	La Palma	37
		38	
	20th	Lucena	39
			40
	21st	Andújar	41
			97

Reserve Infantry—*continued.*

Military District.	No. of Brigade.	Brigade Headquarters.	Nos. of Reserve and Depôt Battalions.
Valencia.	22nd	Chiva	42
			44
	23rd	Alcira	43
			45
	24th	Játiva	46
			52
	25th	Segorbe	47
			49
	26th	Vinaroz	48
			50
	27th	Dénia	51
		54	
	28th	Orihuela	53
		58	
	29th	Hellin	55
		56	
	30th	Múrcia	57
		60	
	31st	Lorca	59
			93
Galicia.	32nd	Betanzos	61
			63
	33rd	Santiago	62
			64
	34th	Mondoñedo	67
			69
	35th	Sárria	65
			68
	36th	Estrada	70
		78	
	37th	Tuy.. .. .	71
		72	
	38th	Rivadavia	74
		76	
	39th	Verin	75
			77
Aragon.	40th	Calatayud	78
			79
	41st	Bekhite	80
			85
	42nd	Tarazona	81
		127	
	43rd	Barbastro	82
		83	
	44th	Alcañiz	84
			86

Reserve Infantry—*continued.*

Military District.	No. of Brigade.	Brigade Headquarters.	Nos. of Reserve and Depôt Battalions.
Granada.	45th	Guadix	88
			90
	46th	Motril	89
			92
	47th	Jaen	87
			94
	48th	Loja	91
		99	
	49th	Linares	95
			96
	50th	Málaga	98
			100
Old Castille.	51st	Bejar	104
			105
	52nd	Medina del Campo ..	102
			103
	53rd	Villafranca del Vierzo ..	66
			112
	54th	Palencia	101
			107
	55th	Toro	108
			109
	56th	Astorga	110
			111
	57th	Pola de Lena	113
			117
	58th	Gijon	114
			116
	59th	Luarea	115
			118
Estremadura.	60th	Zafra	119
			120
	61st	Mérida	121
			122
	62nd	Plasencia	123
			124
Navarre.	63rd	Tafalla	125
			126
Búrgos.	64th	Aranda de Duero	6
			129
	65th	Soria	128
			132
	66th	Miranda de Ebro	130
		131	
	67th	Santander	133
			134

Reserve Infantry—*continued.*

Military District.	No. of Brigade.	Brigade Headquarters.	No. of Reserve and Depôt Battalions.
The Biscayan Provinces	68th	Bilbao	135
	69th	Vergara	136 137 138
The Balearic Isles	70th	Inca	139 140

APPENDIX C.—TABLE IV.

Reserve Cavalry.

Table showing Distribution of Reserve Regiments.

Military District.	Province.	Headquarters.	No. of Reserve Regiment.	Depôt Squadron of Regiment.
New Castille	Madrid ..	Madrid	1	Reina (2nd).
	Ciudad-Real	Ciudad-Real ..	2	Pavía (20th).
	Guadalajara	Guadalajara ..	3	Montesa (10th).
Andalucía	Seville ..	Seville	4	Alfonso XII (21st).
	Cadiz ..	Jeréz de la Frontera.	5	Almansa (13th).
	Córdoba ..	Córdoba	6	Princesa (19th).
Valencia	Valencia ..	Valencia.. ..	7	Sagunto (8th).
	Castellon de la Plana.	Castellon de la Plana.	8	Sesma (22nd).
	Albacete	Albacete.. ..	9	Alcántara (14th).
	Múrcia ..	Múrcia	10	Tetuan (17th).
Aragon	Zaragoza ..	Zaragoza	11	Rey (1st).
	Huesca ..	Huesca	12	Castillejos (18th).
Granada	Granada ..	Granada	13	Villaviciosa (6th).
	Almería ..	Almería.. ..	14	Borbon (4th).
	Jaen ..	Jaen	15	Principe (3rd).
Old Castille	Valladolid ..	Valladolid	16	Talavera (15th).
	Salamanca ..	Salamanca	17	Villarrobledo (23rd).
	Palencia ..	Palencia.. ..	18	España (7th).
	Zamora ..	Zamora	19	Albuera (16th).
	Leon ..	Leon	20	Arlabán (24th).
Estremadura	Badajoz ..	Badajoz	21	Santiago (9th).
Navarre	Navarre ..	Pamplona	22	Lusitania (12th).
Búrgos	Búrgos ..	Búrgos	23	Farnesio (5th).
	Logroño ..	Logroño	24	Numancia (11th).

APPENDIX D.—TABLE I
Strength of the Home Army of Spain.

	Actual Peace Strength.				Nominal Peace Strength.				War Strength.						
	Officers.	N.-C.O. and men.	Horses.	Mules.	Guns.	Officers.	N.-C.O. and men.	Horses.	Mules.	Guns.	Officers.	N.-C.O. and men.	Horses.	Mules.	Guns.
60 Regiments Infantry ...	3,900	51,000	420	120	...	3,900	88,280	420	120	...	3,420	122,040	420	960	...
20 Battalions Rifles ...	640	8,680	60	20	...	640	16,560	60	20	...	560	20,520	60	160	...
Royal Escort Squadron ...	17	150	131	...	...	17	150	131	...	...	17	150	131	...	...
24 Regiments Cavalry ...	1,056	12,048	8,000	24	...	1,056	12,048	8,000	24	...	1,056	12,048	8,000	24	...
2 Independent Squadrons ...	28	220	216	...	...	28	220	216	...	...	28	220	216	...	...
Riding and other Cavalry Establishments	181	1,481	873	32	...	181	1,481	873	32	...	181	1,481	873	32	...
6 Regiments Garrison Artillery ...	282	5,364	30	12	...	282	5,364	30	12	...	282	12,252	30	12	...
1 Battalion Garrison Artillery ...	23	421	2	1	...	23	421	2	1	...	23	1,001	2	1	...
5 Regiments Field Artillery ...	201	2,620	785	840	100	201	9,620	785	840	100	240	4,895	895	3,510	180
3 Regiments Position Artillery ...	123	1,812	345	900	60	123	1,812	345	900	60	144	3,297	537	2,646	108
3 Regiments Mountain Artillery ...	123	1,680	204	495	60	123	1,680	204	495	60	144	3,621	303	1,384	108
4 Regiments Sappers ...	216	2,828	24	48	...	216	3,076	24	48	...	236	8,288	24	384	...
1 Regiment Mounted Engineers ...	55	1,177	100	464	...	55	1,355	100	464	...	55	1,355	100	464	...
The Topographical Brigade ...	9	80	...	...	...	9	80	...	...	...	9	80	...	...	...
The General Staff ...	160	...	...	...	...	160	...	...	...	...	160	...	...	...	...
The Garrison Staff ...	377	...	...	...	...	377	...	...	...	...	377	...	...	...	...
The Royal Halberdiers ...	43	212	...	...	...	43	212	...	...	...	43	212	...	...	...
The Royal Halberdiers ...	97	1,443	10	...	...	97	1,484	10	...	...	97	1,584	10	...	...
Disciplinary Corps ...	591	11,464	583	3	...	573	11,484	583	3	...	572	11,584	583	3	...
The Carabineros ...	898	14,756	1,660	...	...	789	14,756	1,660	...	...	780	14,756	1,660	...	...
The Guardia Civil ...	21	213	...	...	...	21	213	...	...	...	21	213	...	...	...
Local troops in Africa ...	3,080	1,120	...	...	...	3,080	1,120	...	...	...	3,920	138,720	420	1,120	...
140 Reserve Battalions ...	2,100	560	...	...	...	2,100	560	...	...	...	2,100	560	...	...	...
24 Depot Battalions ...	456	696	...	...	...	456	696	...	...	...	1,056	12,048	8,000	24	...
24 Depot Cavalry Regiments ...	120	432	...	...	...	120	432	...	...	...	144	3,000	2,112	...	...
6 Regiments Reserve Artillery ...	24	18	...	...	...	24	18	...	...	...	282	12,252	30	12	...
Totals.....	14,791	120,495	13,433	2,959	220	14,664	171,688	13,433	2,959	220	17,767	524,753	24,816	11,868	368

APPENDIX D.—TABLE II.

Army of Cuba.

Branch of Service.	Corps.	Officers.	N.C.O.'s and Regimental Staff.	Rank and file.	Total of all ranks.	Horses.	Mules.
Infantry.	8 Line Regiments ..	624	1,760	9,424	11,808	..	400
	8 Rifle Battalions ..	312	952	5,456	6,720	..	200
	Legion of St. Catherine	24	68	360	452	..	10
	2 Battalions of Sharpshooters	74	168	1,032	1,274	200	50
	Total	1,034	2,948	16,272	20,254	200	660
Cavalry.	2 Regiments of Chasseurs	90	208	996	1,294	800	20
	8 Independent Squadrons	128	208	1,392	1,728	1,120	40
	1 Remount Squadron.	10	17	103	130	40	..
	2 Divisions of Sharpshooters	82	188	792	1,062	800	20
	Total.. ..	310	621	3,283	4,214	2,760	80
Artillery.	1 Garrison Regiment.	59	166	800	1,025	..	..
	1 Mountain Battery..	5	17	92	114	4	30
	1 Company of Workmen	2	14	108	124	..	..
	Total	66	197	1,000	1,263	4	30
Engineers.	1 Regiment	70	292	878	1,240	..	..
Special Corps.	1 Battalion Clerks and Servants	25	244	468	737	..	..
	1 Disciplinary Brigade	7	16	200*	223	..	..
	1 Cavalry Transport Brigade	15	53	250	318	59	130
	1 Brigade of Workmen	3	84	116	203	..	..
	1 Sanitary Brigade ..	7	153	247	407	..	..
	Total.. ..	57	550	1,281	1,888	59	130
	Grand Total.. ..	1,537	4,608	22,714	28,859	3,023	900

* Number variable.

APPENDIX D.—TABLE III.

Army of the Philippines.

Branch of Service.	Corps.	Officers.	N.C.O.'s and Regimental Staff.	Rank and file.	Total of all ranks.	Horses.
Infantry.	7 Single Battalion Regiments	259	686	4,571	5,516	..
	Company of the Marianas Islands	5	10	46	61	..
Cavalry.	1 Squadron Lancers ..	12	26	130	168	150
Artillery.	Regimental and Battalion Staff	13	5	..	18	..
	10 Garrison Companies ..	40	190	1,040	1,270	..
	2 Mountain Batteries ..	8	44	250	302	110
Engineers.	1 Battalion	25	97	473	595	..
	Total	362	1,058	6,510	7,930	260
Special Corps.	3 Discipline Companies ..	..	..	..	numbers variable	..
	Carabineros .. .. .	..	..	..	1,300	..
	Guardia Civil .. .. .	..	..	..	3,000	..
	Veteran Section .. .. .	..	..	..	350	..

shell.	Initial velocity per sec.		Effective range with common shell.		Remarks.
	Bursting charge.	Metres.	Feet.	Range in metres.		Elevation.
kilogr. ..	424	1,389	..	..	Coast defences.
6·70	266	873	4,156 5,400	40° 40	Siege Train. The carriage of this howitzer allows an elevation of 45°.
6·837	..	..	..	..	Experimental gun.
2·00	475	1,558	5,000	13° 34'	Fortresses and coast defences.
1·75	473	1,551	5,000	13 29	Siege train.
1·00	414	1,258	5,500	27 15	Fortresses and siege train. Converted from 13 cm. smooth bore.
0·300	368	1,207	4,000	13 10	Position battery. This gun has been superseded by 9 cm. steel gun.
0·240	473	1,551	5,400	22 55	Position batteries.

Breech loading.

2

2

2

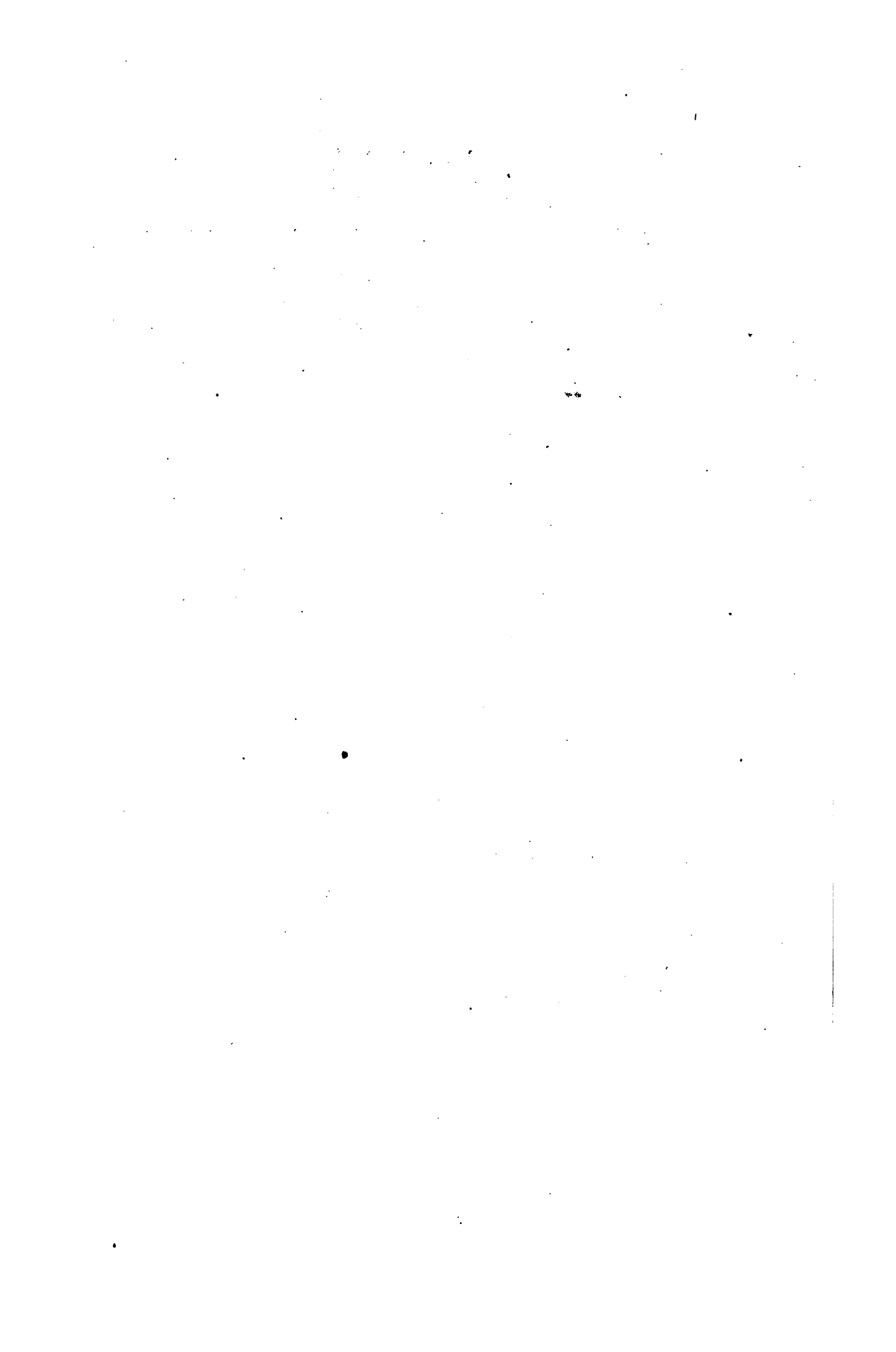
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