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General Principles of Military Organization

Captain J. C. Colomb Adjutant ^a Limerick Artillery Militia Published online: 11 Sep 2009.

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Ebening Meeting.

Monday, March 13th, 1871.

LIEUTENANT-GENERAL SIR PERCY DOUGLAS, Bart., in the Chair.

NAMES of MEMBERS who joined the Institution between the 6th and 13th March, 1871.

ANNUAL.

Major-General H.R.H. the Prince Christian of Schleswig-Holstein, K.G. Hamond, Robert N., Lieut. R.N. Digby, Honble. E.C., Lieut. Gren. Guards. Barlow, A. Pratt, Capt. Royal Berks Militia. Godman, Charles B., Lieut., Royal Sussex L. I. Militia. Cass, A. H., Major h.-p. late 10th Hussars.

GENERAL PRINCIPLES OF MILITARY ORGANIZATION.

By Captain J. C. Colomb, Adjutant Limerick Artillery Militia.

GENERAL SIR C. T. NAPIER said that success in war depends on the fulfilment of two great principles—"to be in the right place, at the right time." I think this maxim furnishes the real clue to a solution of the

problem, "Army Organization."

Now distribution has to do with place, organization with time. The nature of distribution best adapted to our imperial requirements must first be settled before organization can be fairly and properly dealt with. We must know the places to be filled and the strength of the forces required to fill them. This it is the duty of distribution to determine. Having done so, organization steps in, creates the forces, holds them in readiness to be at the named places at the "right time," and sees that they are provided with every requisite, and that they are in every way adapted to the service they are to perform. Without entering into arguments or examples to establish its truth, I submit this first general principle to your consideration.

Organization is subservient to Distribution.

Now the "right time" is undoubtedly the "moment war is declared." The question therefore is, what are the places to be filled by military forces on the declaration of war? In No. liii of the Journal of this Institution you will find my answer to the question, in two papers on the "Distribution of Our War Forces." As the principles there put forward are those on which I rest the principles of "Military Organization," it is necessary I should briefly speak of them now.

1st. I show that it is a popular fallacy to suppose "invasion" is our one great danger; these islands are nothing more than the imperial base of operations, and must not be merely secured from capture by assault, but also from reduction by investment.

2nd. To the Empire as a whole I apply this principle, viz., "The dis-"tribution of forces in such a manner as will best secure the imperial base of operations, and ensure safety and freedom to the imperial

" communications."

3rd. I propose to place and keep forces in such a position during peace as will best enable them to act on the declaration of war, no

matter from what quarter it comes.

4th. I hold that two armies are required, one a garrison, the other a field Army, and I show that the garrison Army is auxiliary to the fleet, and that the fleet is auxiliary to the field Army, and that neither the distribution of the Navy nor that of the Army, can possibly be treated as abstract or distinct questions.

5th. I maintain that British military forces are not required in

peace to serve abroad, except in India and the Mediterranean.

As the protection of our Colonies and possessions can best be secured by defending their communications in war, I propose to throw their protection in peace on naval forces ashore and affoat, supplemented by native marine troops. Instead of giving certain outlying possessions detachments of troops, I propose to rear imperial fortresses at the "strategic points" of the imperial communications, and to place at these points in peace naval forces for shore duty, of a strength sufficient for the ordinary peace emergencies of our Colonies and possessions in the maritime districts, of which these points are the base; with a reserve of war vessels, which would furnish means of transport for the garrisons, and in which these forces would embark in war, being then relieved by the garrison army.

6th. The imperial strategic points are named in those lectures, and I submit they would all require military garrisons in time of maritime

war.

The same war which would threaten our home fortresses would also threaten those in the Mediterranean, and a combination between America and a European Power or Powers would necessitate our filling up the war garrisons at the whole of the imperial strategic points at

home, in the Mediterranean and elsewhere.

I define the defensive duties of the "Field Army" to be as follows:—
"To defend the assailable coast line of the United Kingdom and to
"occupy and hold India." Now this field Army would be unable to
move without the Fleet, and the Fleet could not move from its great
arsenals and bases of operation unless they are secured by the garrison Army; hence it is that the organization of the garrison Army is
of first importance. Its strength I estimate at 120,000. Thus—70,000
for home fortresses, 30,000 for Mediterranean, and 20,000 for other
Foreign strategic points; considering that these are 14 in number,
and that Bombay is one of them, I cannot think the estimate too large.

A certain proportion must be liable to and held ready for service

That proportion is represented by the force required for the war garrisons of Malta and Gibraltar added to the war garrisons which may at any time be required at the other foreign bases of naval operation; in other words, at the other imperial strategic points abroad; this, for the sake of illustration, I assume to be 20,000. Therefore, out of a garrison Army of 120,000, the conditions under which 50,000 serve must not preclude the possibility of sending them on foreign service. Hence my reason for thinking it a mistake to suppose that our garrison Army can exclusively, or in any largely preponderating proportion, be furnished by forces only liable to home service, and consequently that the common opinion that soldiers in a third period of service who are to be set apart for garrison service, and are, at the same time, not to be liable to foreign service, is false in principle. For the same reason I maintain that we cannot look to militia to supply the garrison force required, they can only be used to supplement it. application of the general principle renders it tolerably clear that out of a garrison army of 120,000 but 70,000 could possibly be furnished by militia, or any other force only liable to home service.

The next general principle to which I desire to draw attention is

this:--

A certain fixed proportion of the garrison Army must be fully trained artillerymen, and the exact proportion is a matter of possible calculation, the nature and extent of the works to be defended being known.

The application of this principle necessitates an enquiry—first, as to What is a fully trained artilleryman? Secondly, What is the certain

proportion required?

Now it appears by the Defence Commission Report, that "in three "months men previously untrained might be made capable of performing most of the duties of garrison artillery, when supported "by a due admixture of fully trained men." And the Report goes on to say, "the proportion of thoroughly trained and skilful artillerymen "required for coast defences appears to depend, to some extent, upon "whether the guns are intended to fire shot or shells." This was written in 1859; we are now in 1871. I ask all present, with these sentences before them, whether the advance of artillery science has or has not increased the proportions of the "due admixture of fully trained artillerymen" it is necessary for this empire to maintain as part of its garrison army?

The then Deputy Adjutant-General of Artillery was examined before this Commission, and proved that at that date if "but one-fourth of the guns mounted had to be manned, there would be a deficit of 10,000 trained gunners, and 10,000 auxiliaries." In the face of this evidence, and though the recommendation of the Commission added upwards of 2,000 guns to the then existing number, in order to increase our field artillery we are reducing our force of garrison artillery. The Royal garrison artillery in the United Kingdom is, according to Mr. Cardwell's statement, now 7,419, 155 less than the number at the date of the Deputy Adjutant-General's evidence referred to, and the number of guns now to be manned at home is, according to the Defence Com-

mission Report, about 2,700 more. We have, in fact, increased the number of guns enormously, and diminished the number of fully trained gunners.

You will find in the evidence of Sir John Burgoyne the following remarkable passage:—"My fear would be of establishing works per"manently at very considerable expense, and afterwards, perhaps, "being forced to abandon them for want of troops." Now, Gentlemen, "works have been established at very considerable expense," and I think there are good grounds for believing that the "due admixture of fully trained artillerymen" (without which those works might have to be abandoned), is "conspicuous by its absence."

Evidently the Commissioners did not consider a man of three months training to be a fully trained gunner. The fall of Fort Avron, and the siege of Paris, confirms the view that four months' training, even while facing the realities of war, is not sufficient to make fully trained garrison artillerymen. The evidence given before the Commission on Recruiting, by those who ought to know best, proves that it takes about two years to make a gunner. Such being the case, the only fully trained artillerymen available for garrison service are serving in the ranks of the Royal (Garrison) Artillery.

By the evidence given before the Defence Commission you will find that, in order to sustain an engagement from any given number of garrison guns, two-fifths of the force at least must be trained artillerymen. If, therefore, we require a garrison army of 100,000 for home and Mediterranean fortresses, 40,000 may roughly be considered as about the number of trained artillery necessary; and be it remembered that if circumstances required the presence of war garrisons at the other defended points abroad, 8,000 more would be sorely needed. To meet this possible demand we have not 12,000.

We have certainly a paper force of militia artillery of about 15,000. The evidence given before the Defence Commission shows that the militia artillery "might fairly be trusted after six months' training, as "auxiliaries." Lord Airlie, in his letters to the "Times," explained that with the ordinary time and means allowed for training a militia artillery regiment, the men could only receive a few days' instruction

in gun drill out of one month's training.

It is evident that as the efficiency of the militia artillery is increased, so the proportion of the "due admixture" of royal artillerymen required for home defence diminishes. To make an artillerymen, two things are wanted, time and means of instruction, such as guns, stores, &c. It is useless to extend the period of annual training or preliminary drill if the appliances of artillery instruction are absent. Now, considering that the corps of militia artillery are scattered over the face of the United Kingdom, is it reasonable to suppose modern ordnance is to be taken from the fortresses at home and abroad and sent to places where it is not wanted except for mere drill and instruction purposes? Surely the great home fortresses have the first claim for modern ordnance and artillery appliances, next to them those in the Mediterranean, and then the other defended points abroad? Are we to rob the imperial ram-

parts to supply corps of militia artillery north, south, cast, and west, with means of instruction? If we are not, then I say either two-thirds of the militia artillery will annually be instructed to use stores and guns obsolete, or fast becoming obsolete, or they must be exclusively furnished by the districts in the immediate neighbourhood of those true schools of garrison artillery, the great home fortresses. In other words, militia artillery corps which are placed, or have placed themselves, in districts where there are neither forts nor batteries of great strategic importance, should be converted into infantry, and the required proportion of militia infantry in the neighbourhood of home fortresses should be converted into artillery. For the same reason the head-quarters of the brigades of garrison artillery should be fixed at these places, and thus the guns and stores supplied for actual service would furnish the means of instruction for the Royal Garrison and the Militia Artillery.

Were these militia artillery corps embodied for one year at these places, which are their natural, and would be then their local headquarters, and each man joining subsequently had to undergo one year's instruction on joining, the proportion of the "due admixture" of Royal Garrison artillerymen required for home fortresses might possibly be reduced to zero. Under these circumstances the strength of the Royal Garrison artillery required would be 20,000—12,000 for Mediterranean, and 8,000 for other foreign "strategic points." The force of militia artillery would be 20,000. Thus each brigade of Royal Garrison artillery would have a brigade of militia artillery of corresponding strength attached to it—with the same head-quarters, the same staff of instructors, and under one control. Each corps of militia artillery would thus be annually trained at the guns they would have to use, and in the batteries they would have to man when called out for actual service.

In a garrison army of known strength, a certain proportion must be engineers. The actual and exact number of this force required depends in a great measure upon local circumstances. For the sake of illustration, I assume it to be an average one-twentieth; therefore, out of a garrison army of 100,000, about 5,000 would be the number of engineers. But when 20,000 garrison artillery are required abroad, the proportion of engineers so required would be 2,500; this would leave 1,000 deficient in home garrisons, and therefore according to the proportion adopted for purposes of illustration, there should be a reserve of 1,000 engineers.

Now I leave it to Officers of garrison artillery and engineers to say whether my illustration of general principles is an over estimate of the force of artillery and engineers required in this garrison army of known strength. It must be remembered that artillery and engineers can always act as infantry, but infantry cannot act as fully trained artillery or engineer soldiers, and a garrison army without a due proportion of those arms is utterly and perfectly helpless and useless. The balance remaining after deducting these scientific branches from the garrison force, represents infantry and the various contingent

services, and consequently, if 50,000 may be required abroad, of which 22,500 would be artillery and engineers, we must have 27,500 infantry, &c., liable to foreign service. According to this illustration of general principles, the composition of the garrison army would be roughly as follows:—

5,000 20,000 1,000 27,500		· • • • • • • • • • • • • • • • • • • •	Engineers Militia Artillery Reserve Engineers Regular Infantry
100,000	•••••	for home of all t	ther infantry reserve e service in the event the foreign strategic requiring war garri-

We now come to the "Field Army."

For the occupation of India in time of profound peace, we require 60,000 British troops; such being the case, and for reasons already given in the lectures before referred to, its reserve at the Imperial base, that is at home, must surely equal it. If this be a correct view, we require a field army of 120,000 for this duty. Now no portion of the force necessary for the occupation of India can properly be deemed as always available for the defence of the assailable coast line of the It is quite possible that at one and the same time United Kingdom. we may have to defend India and the United Kingdom. If, therefore, the reserves and reinforcements for India are calculated upon as part of the defending force at home, they would in that case be wanted in two places at the same time. For this reason it appears to me to be a general principle, that the reserves and reinforcements for the advanced force in India must be considered as supernumerary to the force necessary for the defence of the assailable coast line of the United Kingdom.

As regards the field army for the defence of that coast line, the first point to be settled is its required strength. There are hardly two people who agree on this subject. Estimates vary from 80,000 to 600,000. I base my calculation on the application of this general principle. As an enemy's force attacking these Islands would be limited by circumstances connected with sea transport, the numerical strength of our field army of defence may be fixed by reference to the same circumstances, provided its organization and efficiency be not inferior to that of those foreign powers whose geographical position makes even an attack possible.

Now we must have a Channel Fleet to prevent the reduction of the Imperial citadel by investment; for the same reason we must have fleets abroad. If we do not guard against "investment," it is comparatively useless our taking measures to prevent "capture by

assault," and so long as we have a Channel Fleet, even supposing it to have met with a reverse or to be out-numbered, it may, I think, be fairly assumed that our enemy could not with safety use war fleets for the conveyance of his armies. A combination between Prussia and France against us would most directly threaten our shores. The aggregate steam tonnage of the merchant navies of those powers is only about 138,000 tons. I submit that to apply this total means of steam transport to a purely military purpose, would require much preparation, involving a stoppage of ordinary trade for some months previously. All the large steamers are employed on ocean lines; only about half are at hand at any one time; the smaller steamers and tugs of course are more likely to be always available. For these and many other reasons, which I cannot trespass upon your time to give, I do not see that much more than 70,000 tons of steam transport would be at the disposal of Prussia and France for military purposes at any one time. Taking Captain Tulloch's* estimate as a guide, I assume that every steamer of 1,000 tons can carry 1,500 men, and tow four horse boats across the Channel, and therefore 70,000 tons may be taken to represent conveyance for about 105,000 men of all arms. Supposing our armies to be well organized and efficient in every respect, I conclude that 120,000 is about the present required strength of the field army for the defence of the assailable coast line; I say present required strength, because as the steam merchant navies of Prussia and Franco are developed, so must our defensive field army be increased.

I submit these considerations to your notice, for it is very important that we should not waste our resources by increasing our purely defensive forces for home purposes out of all proportion to necessity or requirement. By so doing we should be reducing our power of attack, and uselessly maintaining military forces only applicable to a purpose for which they are not wanted. I impress upon you that I am not making dogmatic assertions, I am merely submitting points for your discussion. I am but a student in search of the true solution of the problem, national or rather imperial defence, and in that capacity I

lay before you what appears to me to be a general principle.

Assuming my illustration to be correct, the total strength of our field army required for purely defensive purposes would be 240,000, about 60,000 being in India, another 60,000 forming the reserve for India, and 120,000 for the defence of the assailable coast line. But in order to place 240,000 men at any time in the field, allowance must be made for sick, casualties, &c., which I take to be 10 per cent.; therefore to provide for deficiencies so occurring, 240,000 must be added, so as to ensure our field army of 240,000 being always effective.

As regards the constitution of this field army 4 guns per 1,000 may be considered a fair allowance. The war establishment of our field artillery may be taken at 46, all ranks, per gun. According to Colonel Baker, about 20,000 cavalry would be required. With reference to engineers adopting the estimate of Major Bevan Edwards, in his

^{*} See "The Protection of London against an Invading Force landing on the East Coast," Journal, No. LIX.

"Organization for the Army of England," about 4,000 would be the proportion. It is well nigh impossible to make a fair estimate of the number of train and contingent services. According to the Prussian standard, about 14,000 train to 100,000 infantry would, I believe, be the proportion. As, however, one-half of our field army is for India, where the men for this service could best be supplied by natives, if the Prussian standard be applied to that portion of the force for home defence, it may be considered a fair allowance. Under all these circumstances, and for the sake of illustration, we will assume the field army to be composed as follows:—

170,000	Infantry. Field Artillery. Cavalry. Engineers. Train.
240,000	c 1 7 7
24,000	or non-effective all arms.
264,000	

Remembering the immense amount of instruction and practical experience required in order to make a field artillery, cavalry, engineer, and, I think I may add, train soldier, it is evident that none of these branches, even though intended for home defence, can be furnished by Militia, or by any force not subject to long continuous training. "Time is money;" consequently, to make a man efficient in any of these branches costs a considerable amount. I therefore think that the services of men so trained should be retained, until their efficiency becomes impaired by reason of age. A reference to the evidence before the Recruiting Commission shows that after 14 years soldiers become unfit for cavalry duty, and will "get into any berth in order to get out of riding;" that artillery soldiers are completely worn out after 17 or 18 years, though they may then be considered "fit for the quiet service of garrison relief;" engineers, on the other hand, may be retained with advantage to 21 years. Though there is no evidence as regards train, I think it is likely men in this branch would continue as long effective as engineers. It takes a comparatively short time to make an infantry soldier, and I think I am justified in saying that a man of seven years' service is at his best, and will, with annual training, continue thoroughly efficient, so long as he is physically fit. Now it appears that the system of enlisting for long periods deters men from joining the Army, and that the most effectual method of retaining the services of a man after the expiration of his first period is to offer him increased advantages if he re-engages. If therefore the first period of service be seven years, the private infantry soldier should, as a rule, be discharged with a sufficient retaining fee on completion of his first term, being liable to be called in for service, and being subject to annual training. The cavalry soldier and artillery soldiery should be induced to remain for seven years more, the engineer and train soldier also. These latter, on completing 14 years' service, should have increased advantages offered to them if they re-engage for a further term of 7 years. But though artillery and cavalry soldiers may cease to be thoroughly efficient at their special work, after 14 years' service they are valuable men, in the quiet service of garrison relief. I therefore propose to recruit the garrison infantry force, liable to foreign service, by re-engaging cavalry and artillery soldiers at 14 years for service in that branch of the forces where they would not actually be required to serve abroad, except in war. It will thus be seen that there would practically be a long service branch of the Army, composed of artillery, cavalry, engineers, and train, the short service branch being the infantry.

I will now complete the outline of the organization of the garrison

army.

I propose three great divisions, with fixed head-quarters at Chatham, Portsmouth, and Plymouth. To the 1st I would attach Woolwich and Dover; to the 2nd Portland; to the 3rd Pembroke and Cork harbour. Each division to be under a General of artillery. The regular forces in each would be about 17,000. The garrison districts surrounding these fortified points would in Great Britain furnish 19,000 Militia artillery, the sub-district of Cork 1,000. The 26,500 Militia infantry required in war I would draw from the Irish Militia infantry. The garrison artillery and engineers could be localized. These arms would supply the peace garrisons for Malta and Gibraltar, and I would treat those places as great depôts, posting men in their first period of service to the depôt brigades stationed there in peace, so that garrison artillerymen and engineers would have before them, on the expiration of their first engagement, home service, a fixed position, and permission to marry as a cheap inducement to continue serving.

To each of these great garrison head-quarters would be attached a certain number of the imperial fortresses abroad, of which the garrison divisional head-quarters would be the great feeders as regards personnel and matériel. By drawing in from their own districts their Militia artillery reserves and the Irish Militia infantry, they could immediately supply the necessary war garrisons for our bases of naval operation

throughout the world.

It will now be understood that the Irish garrison sub-district of Cork would furnish 1,000 Militia artillery, the garrison districts and sub-districts in Great Britain, with their local head-quarters at the great fortified points, would provide 19,000 Militia artillery. The rest of the United Kingdom, being divided into field districts, would only furnish Militia infantry. During peace the Irish Militia infantry would be attached to the field army, and in war it would be called in for garrison service at the great home fortresses.

I hold that the artillery and engineers—both field and garrison—the cavalry and train, should ever be maintained at a war strength. It takes two years to make the men of these forces, and, therefore, if the

country will not keep the Army required for its defence always at a war strength, I submit that the expenditure on infantry must be reduced in order to procure the greatest amount of military efficiency with the least possible outlay. If we have a sufficient force of these special arms, we can make ready for war on six months' notice. If we have not a sufficient force of artillery, cavalry, engineers, and train, although we have the infantry, we must wait two years before we can

place that infantry in the field.

Now, it appears to me that the only possible way of reducing expenditure on infantry, without sacrificing its numerical strength, is by keeping it in a reserve or dormant state, and this can only be done by "localization and short service." India is the difficulty in the way of short service, while Ireland is the "standing dire discouragement to localization." India is, however, a grand foreign training-school, and the forces under instruction there cost the country nothing. Ireland being poorly cultivated, with great variety of ground in a small area, is valuable as a great home training-school. By looking at India and Ireland in this light a clue may, perhaps, be found to the difficulties they present on approaching the organization of the infantry of the

field army.

Supposing it is desirable to have in Great Britain nine field districts. each furnishing 9,000 infantry, that these districts are mapped out, and all the complicated work of distribution done, "the business of organization commences." After deducting the garrison districts furnishing the 19,000 Militia, organized as artillery, there would be at present about 81,000 Militia infantry, or 9,000 in each field district. The computed strength of Regular infantry is 90,000, one-half at home and the other half in India. The term of service for the rank and file is seven years, but the Officers, Non-commissioned Officers, and staff, forming the battalion cadre, would be long-service men. The cadre in India must be kept full, that at home must either be kept full, or the means must be at hand to fill it at any moment. It is not necessary to relieve the Indian cadre bodily and bring it home, because the time of the men filling it has expired. It comes to exactly the same thing, whether the men quit the cadre in India or at home. What object would be gained by bringing the permanent cadre home to be refilled? Say a battalion, 1,000 rank and file strong, of seven years' men, is raised and starts for India a year afterwards; while out, the casualties by death and invaliding would be about 6 per cent. per annum; vacancies so occurring must be filled up from home; and, consequently, in the last year of service of the men of the regiment there would be only about 640 men whose period had expired. The other 360 would be men in various stages of their term of engagement. Are the cadre and 360 men to be brought home merely for the sake of discharging 640 men at home, instead of from India? By such an arrangement some of the 360 would spend their whole service abroad on board the transport, for their engagement would expire before the cadre could again move back to India. It is evident that were the seven years' scheme adopted, a different system from that existing now must be introduced.

I therefore propose that each regiment consist of two battalions, the cadre of the 2nd being placed in India, the other being fixed in a particular locality in Great Britain. The Officers and Non-commissioned Officers to be posted to and relieved from the 2nd battalion in rotation, by regimental arrangement, the period of service in the 2nd battalion being fixed. The 90,000 infantry would thus be organized in 45 regiments of two battalions each. This would give five regiments, or 5,000 regular infantry to each field district in Great Britain, and, consequently, five permanent regimental head-quarters. To each of these one-fifth of the Militia in the district would be attached, or about 1,800, two battalions 900 strong.

As regards Ireland, which I propose to treat as the great preliminary training-school for India, 24,000 is the number required to balance casualties in the "field army;" of this the proportion of infantry would be 17,000. Deducting the Foot Guards, which is and must ever be a special service, we have about 11,000 remaining to form a great Irish depôt. I would divide Ireland into the same number of field districts as Great Britain, the head-quarters of each being chosen for "strategic reasons." Each division of Great Britain would thus have its divisional depôt, about 1,250 strong, in Ireland, thus establishing a local connection between the divisional districts in Great Britain and those in Ireland. Each of the 45 regiments would have in Ireland about 250, with an Irish depôt cadre.

So far, then, each regiment would consist of 2,250 all ranks, of which 1,000 would be in India completing training, 250 in Ireland undergoing training, and 1,000 in reserve at its fixed regimental head-quarters in Great Britain. As an efficient force must ever be maintained in Ireland, recruits raised in Great Britain should be able to take their place in the ranks before they join the Irish depôts; therefore such recruits would receive their first instruction at their permanent regimental head-quarters. A man joining an infantry regiment would commence his instruction at its head-quarters or its depôt; if he were an English or Scotch recruit he would, after about three months. pass to Ireland, and thence in about one year afterwards to India. returning home at the expiration of his seven years' service. I would offer £10 a year, including training pay to that man, on condition that he joined the 1st battalion, underwent an annual training, and was liable to foreign service if required. The rank and file of the whole of the first battalions would thus be in reserve, and the cost of their maintenance would be about £410,000 a year added to the charge for their food during training, which I would not deduct from them. Under the proposed arrangement, in Great Britain, there would be no rank and file of the infantry of the field army in an active state, save the Guards, about 11,000 in Ireland, and a certain number of Regular and Militia recruits under instruction, and casualty men awaiting discharge. The battalion and depôt cadres should, however, be always kept complete. The period of service with the 1st battalion should be regulated, so as to make the number annually passing into its ranks correspond with its average casualties, thus ensuring the ranks always

being kept full. After a man had completed the regulated period in the 1st reserve, he should be induced to re-engage for a further term in a 2nd reserve, the period of training being reduced, and the retaining fee being also reduced, he should be liable to foreign service, and not be discharged until he becomes unfit for active service by reason of age or infirmity, when he should receive a small pension calculated by his total service. The strength of this 2nd reserve cannot be calculated unless the term of service in the 1st battalion be fixed. Without more accurate information it is impossible to do so. Supposing it to be 30,000, at £5 per man a year, the total pay charge for 71,000 rank and file in reserve, and 11,000 active infantry in Ireland, would be about £800,000 a year. Under the existing system of keeping all our infantry in an active state, I calculate a similar force of rank and file would cost upwards of £1,800,000 per annum. Each regiment would thus have a 3rd battalion of, say 650. The cadre should be kept complete, and, therefore, the 3rd reserve and the Irish depôt would require a battalion There would be three to each regiment, two only on the British establishment. The Non-commissioned Officers of the two Militia battalions would be permanently employed doing duty with the Non-commissioned Officers of the 1st and 3rd battalions during non-training periods. There would be a standing force in the United Kingdom of infantry non-commissioned Officers numbering in the aggregate about 15,000; they would be the picked men of the Army. These should be well paid, and receive good substantial pensions when physically disabled.

As regards cavalry: About 1,200 are Life and Horse Guards; the cavalry of the Line would consequently be about 18,800, or 30 regiments of an average strength of about 625; of these 8 would be serving in India in a somewhat reduced strength, 22 at home, say 4 in Ireland, and 2 in each divisional district in Great Britain. These regiments might be constantly changed, as at present; they would be composed of men whose inducements to serve increased up to 14 years, after which provision is made for allowing them to complete their time in a quieter branch of the Army. The cavalry stations being permanent, each might have a depôt of deserving men, in their second period of service, for ordinary barrack duties. In this way might the number of horses be reduced in proportion to the number of men allowed to remain stationary. These depôts would be attached to each regiment taking up its quarters at the station, the horses of which would furnish the means of keeping the men up to their work. The cavalry should not be restricted to any particular districts; Ireland would be probably its best recruiting ground, and a greater number of these regiments might have Irish names.

As regards field artillery: The brigade of Guards ought not to be without its proportion, 1,000, leaving 30,000 for Line service. There would be about 70 batteries in India at a reduced strength, and the field artillery force at home, taking Royal Horse Artillery and Royal Artillery together, would furnish about 78 batteries at a war strength, say 15 in Ireland and 7 in each field district in Great Britain. I must

here remark that, as I am only dealing with general principles, my figures must be regarded as mere illustrations and nothing more. Each field artillery station in the United Kingdom would be permanent. As with the cavalry, so with the field artillery. I would form depôts of deserving men in the second period of service; the strength of each depôt to be equal to the difference between the peace and war establishment of the batteries accommodated, and at these stations with those depôts I would place the additional war equipment as regards carriages, &c., so that, though the field batteries would move about the country at a peace establishment, in their barracks would be everything required to enable them to take the field, except the horses for the second Line.

As regards engineers: No men of this force are, it appears, required in India. The proportion for the brigade of Guards would be 100. Allowing 300 to Ireland, there would be 400 in each field district in Great Britain. 375 would be about the proportion of train to complete the the Guards brigade: there would be about 1,000 in Ireland, and 1,500 in each field district. These two branches of the field army could be localized, they would only be liable to service abroad in war. In peace the cost of their maintenance, between the periods of military training, would be considerably reduced by employing them in the military manufactories and supply departments in their districts.

Of the 24,000, or 10 per cent., allowed for casualties in the field army, 17,000 infantry has been accounted for; the proportion of the other arms would be 3,100 artillery, 2,000 cavalry, 400 engineers, and 1,500 train; these would be at the various depôts and schools of instruction. Thus the riding establishment, engineering school, and all staff and contingent services would be amply provided for.

The general distribution of the field army would be as follows:-

Great Britain, 9 divisions, 23,000	207,000
Brigade of Guards, all arms	8,500
Ireland, 9 depôt districts, regular troops	
Forces in India	60,000
	294,000

This 30,000 infantry, more than the estimated defensive strength required, represents the possibility of increasing, at comparatively small cost, the offensive power of our field army. The machinery proposed is, I think, adapted to both a voluntary or a compulsory system, to the maintenance of an efficient Army of defence, and to the creation of an Army of attack. Year by year wages are increasing, while the parsimonious tendency of the nation as regards military establishments in peace, is also increasing. This being the case, it is only by making such arrangements as will least interfere with soldiers following civil occupations in peace that the Army can, with any prospect of success, compete in the labour-market for men.

In conclusion, I desire to draw attention to the impossibility of arranging the territorial boundaries of military districts by counties or

by any ancient custom. In my former papers I did this for purposes of illustration, but undoubtedly the district limits can only be defined by reference to the distribution of populations. It appears to me that reorganization, based on the county system and the existing regimental system, will not be desirable, because these two conditions are irreconcilable.

I hope this rough outline will be understood. I have compressed the contents of 140 pages of the first two parts of my general plan of Imperial Defence* into this paper of 13 pages; this will account for many shortcomings and deficiencies. I now submit these general principles to your consideration, with an apology for the imperfect manner in which they are laid before you.

Captain WHEATLEY, R.N.: We all greatly admire the plan which Captain Colomb has just explained to us. I consider that the last six months have been one of the crises of this country, and I merely wish to show the necessity for adopting some plan similar to Captain Colomb's. Prussia and Russia are now in close alliance. Prussia has acquired immense wealth as the result of her late war with France. Both nations have large fleets—fleets, taken together, about equal to our own. Many Englishmen rely upon our fleet as our first line of defence. We have been spending about £12,000,000 upon the Navy in order to find out what we ought not to do, but I do not say this in the way of finding fault, because it is an almost necessary expenditure. The ship must be designed after the gun—the gun has outrun the ship.

Captain Colomb says that military organization depends upon naval organization; and what I wish to do is to show the necessity for Captain Colomb's, or something like his principles, being brought into play, because so many rely upon our first line of defence, our Navy. In the present crude state of ships—with foreign nations as well as our own—a naval action must be very much a matter of chance. It may result, like the naval action between the first "Monitor" and the "Merrimac," in a drawn battle; or the first shot that takes effect may decide the battle; we cannot tell one way or the other with the ships we have, or that other nations have. Our forefathers left us a name for honour, weight, and power among the nations of the world. I think it is our duty to convey to our descendants that name untarnished in honour, undiminished in power and weight. I think, therefore, that unless some alteration is made in our present system, and something of the character of Captain Colomb's plan be adopted, that we may soon have to pronounce the awfully terrific words for any nation—"Too late!"

Captain Hoselson, R.N.: It is with much pleasure that I rise to thank Captain Colomb for the very able paper that he has read before this Institution. I perfectly agree with him in all the leading points that he has advanced in favour of considering the British Empire as a whole. We must never lose sight of the fact, that we possess that which other nations do not possess, viz., an enormous Colonial Empire, and an immense amount of floating wealth. We cannot, therefore, limit our plan of operations merely to a defence of our shores. We must always regard the British Empire as a whole, and consider not merely how we can defend our Colonies, but how our Colonial possessions can be made to aid in the defence of our vast floating wealth. We possess about 46 Colonial possessions, including our Empire of India, containing in all about 220 millions of inhabitants. The population of Great Britain alone being about 31 millions, is nearly equal to the entire German Empire, and nearly double that of the Prussian Kingdom before the late Austrian war, for the population of Prussia was only 18 millions before the year 1866. This country possesses moreover every element of military strength in far greater proportion than

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any other country. All that is needed is organization. We have only to consider what are the requisites for carrying on warfare, to perceive our own superioritythey are men, money, coal, labour-saving machinery and munitions of war. but recognize the fact that 1 lb. of coal effectively used in a high-pressure condensing. engine equals the work done by an able-bodied man in 24 hours, consequently steam machinery as applied so generally in Great Britain in aid of our population in our manufactories and elsewhere, has been estimated to equal the work annually of 100 millions of men. This is totally irrespective of the saving of labour by the use of those mechanical implements now so universal, that are not moved by steam; therefore the economy in manual labour in this country since 1815 is incalculable. The floating wealth of this nation as represented by the imports and exports, amounts at the present moment to 530 millions sterling, irrespective of the value of the ships themselves, and also totally irrespective of all specie imports, which I have no correct means of ascertaining. The realized capital in this country can hardly be estimated, so great has been its accumulation since 1815, but it must be counted at thousands of millions. In the last sixteen years alone, or since the Crimean War, the value of our imports and exports per head of population has nearly doubled, for in round numbers they stand as £9 per head to £18. The importance of a general plan of offensive and defensive operations as submitted in Captain Colomb's paper, will be still more apparent when we observe that he proposes to strengthen our military depots in various quarters of the globe, and thus keep open our great highways of commerce, for we must never lose sight of the fact that the enormous expansion of our trade and the increase of population has made us greatly dependent on foreign countries for our imports of food. The nation has again been seized with one of its periodical fits of panic. The position that France has been reduced to in a few short months, has astonished those who would not read the signs of the times aright. For my part, when I read my paper in this Institution in May last, I was firmly convinced that a war between Franco and Prussia might be expected at any moment, and I trust now that we have been so rudely awakened to a sense of insecurity, that the country will take an enlarged view of this great question, as will be found so ably treated in the paper we are called upon this night to discuss. An efficient organization, however, such as has been so completely carried out in Prussia, is a plant of slow growth, but it would never have arrived at its present perfection had not a sound system been originally sketched out and persistently followed. It is therefore imperative that we should fully recognize the fact that this country is an island, and not part of a continent like Prussia, and that therefore our plans ought to be matured in conformity to our peculiar position. One point of the Prussian system must strike the most superficial observer, viz., the rapidity and facility with which its army can pass from defensive to offensive operations. Had not Prussia so matured her organization, her financial resources would never have supported the charge consequent on calling out so vast a body of men under arms.

General Lefrot, R.A.: I think that we are under obligations to Captain Colomb for having distinctly brought before us and before the public, not only on this occasion but on several other occasions, that we are not as a great empire to shrink into our shell, and to consider that the imperial interests of Britain are bounded by the four seas of England. He has laid that down with great strength and clearness. I entirely and cordially concur with him, as I also do with the remarks which have fallen from Captain Hoseason. But I confess that I have read this paper and listened to it with something of the feelings with which one regards a magnificent design for a palace that is proposed without much regard to architectural difficulties or financial considerations. It seems to me that a scheme so logical and symmetrical is an illusion, at least if we regard the political organization of the British Parliament and the possibility of its realisation. If we cannot defend ourselves short of having a garrison Army of 240,000 trained soldiers always on foot, which I presume supposes them complete in all the accessories of an army; and a field Army also counted by hundreds of thousands in addition, then I fear we must remain in our present powerless state. I do not entirely agree with Captain Colomb in thinking that the British forces should be withdrawn from the remoter parts of the empire. I recollect, as everybody else does, that when the Roman eagles turned their wings homewards, the

Roman provinces soon ceased to be Roman provinces. And I believe if England withdraws her troops from her distant possessions, they will soon cease to add to the dignity, the pride, or the power of this empire. I entirely dissent from the notion that we can safely withdraw our troops from our distant possessions, on the assumption that we can again launch them forth at short notice wherever they may be required. We shall assuredly be disappointed if we ever act upon that idea. And why should we deprive our Army of that large experience, that acclimatization, which makes a body of British military men in many respects different from any other military body in the world? An intelligent Officer of almost any foreign army invited to a British mess and conversing with those around him, is struck by the peculiarity and the value of that experience of distant countries which they have acquired and display easily and without pretension. I have heard it often remarked, and for my own part shall be extremely sorry to see the policy adopted which seems to be now gaining the public car, of leaving to local militia, in countries where labour is so highly paid that we know very well what a local militia generally becomes, the custody and guardianship of interests which are not only our property but the inheritance of our children, of territories which are not only ours but theirs. I cannot see the wisdom of concentrating our Army at home, subject to the caprices of Parliament or to the exigencies of party. With the system which we know has gone on for the last thirty years and will go on for a long time to come, these capricious hot fits and cold fits, which affect the defences of the country; what, I should like to know, would become of the 210,000 men of the garrison Army by and by when a severe re-action takes place and we begin to cut down again? I like that conception of Webster's, a poetic image often quoted, where he speaks of the roll of our morning drum encircling the globe. The roll of our morning drum should encircle the globe while Providence commits to our care so great a portion of it as at present. But if, on the ground of financial difficulty, we leave these things to take their chance, trust to the forbearance of other Powers, deluding ourselves into the belief that their ambition is going to slumber, forget how during the last two generations these nations have been working up more and more to a level with us on all those points in which our superiority existed at the beginning of the present century; I say, if we act upon that principle long, we shall find ourselves where Holland, Venice, and other States of small extent and once great energy at last found themselves, when selfishness and corruption had done their work, when they had "but a name to live, but were dead."

Captain P. H. COLOMB, R.N.: I should like to ask the lecturer to correct the misapprehension into which I think General Lefroy has fallen. I have no knowledge of the paper except from hearing it read, but I have not in the slightest degree understood that the English cagles are to be withdrawn from our colonies as the Roman eagles were withdrawn from theirs. I have understood the contrary; that it is the lecturer's intention to make the English eagles stronger at present in our colonies; only, as I think I understood him, not in a military form. I think his idea is, that looking to those political accidents which General Lefroy very properly alluded to, he has made it clear to his own mind that we will not in time of peace keep anything like a military force in any colony which would be incapable of protecting it during war. I think his idea is, that we should mislead the colonies by keeping up a force in peace which we might probably withdraw during war; at any rate, we should lead them to rely upon a force which is not really capable of defending them. I understand his idea of concentrating the forces in England to be, that we should be prepared to let loose those forces for the defence of the colonies in time of war, and that we are to keep up the strongest and closest connection with them, and to let foreign nations know that we do keep up this close connection by the presence of a large naval force. I think that to be the view of the lecturer, and I have merely risen to correct what I thought a misapprehension.

Captain Hoseason: I have only to observe, that had not that been my conception of Captain Colomb's paper I should have arisen to oppose his views. But I imagine that he meant the great pivots of operation to be maintained by the Armies of England; that it was only on the different selections that he grounded his plan, and not

on the abandonment of the colonies by English troops.

The CHAIRMAN: I think I can explain the discrepancy. Captain Colomb has condensed his lecture; I have read his book, and that part which relates to the defence of the colonies had been delineated.

defence of the colonies had been delineated.

Captain J. C. R. COLOME: I can only say that it is so. I would withdraw the troops from certain of our colonies and have strategic stations thoroughly protected by naval forces in time of peace. I say that there are certain imperial strategical points which we are bound to hold against all nations. I would defend the empire by the concentration of force at those points which are necessary to the safety of the imperial roads.

Colonel Jenvois, R.E.: Captain Hoseason has in a great measure forestalled me in what I intended to say. I agree generally in the views expressed by him, and in those of Captain Colomb, as regards looking at the defence of the United Kingdom from an imperial, and not merely from a local point of view. I may remark with respect to the observations of my friend, General Lefroy, that whilst he is of opinion that Captain Colomb has suggested the building of a palace without reference to expense, he himself proposes to build a whole city of palaces, regardless of the cost. Whilst Captain Colomb suggested a general scheme which might be reduced or expanded in proportion as the funds at the disposal of Government would permit, the scheme of providing imperial carrisons of sufficient strength to be of any use in the Australian, the Canadian, the South African, or the West Indian colonies, and in the many other colonial possessions of Great Britain, would, I venture to think, if you will take up a sheet of paper and calculate the cost, be found impracticable. A small imperial force in Canada would only be a temptation to our neighbours to attack us. If you leave a force in Australia, you only do work that the Australians can very well do themselves, and which they will probably do a great deal better if you leave their internal defence to themselves. I venture to think also that the presence of a British force on the Cape frontier is a temptation to the colonists to includge in Kassir wars, which have, I am told, been a source of commercial advantage to many of them. The true policy of this country in regard to its defence, is, first and foremost, a great naval policy. As both the lecturer and Captain Hosenson have remarked, our ships must command the communications of our merchant ships during war, and in order that those ships may have bases of operations for coaling, for refitting, and for shelter; places such as Simon's Bay, at the Cape, Port Louis, at the Mauritius, Trincomalee or Galle, at Ceylon, Hong Kong, Bermuda, Halifax, Gibraltar, Malta, must be maintained as naval stations, and these places must be made strong in themselves. They must not be dependent upon our fleets to protect them. They are the bases of operations that must be defended during the absence of the Fleet, so that when ships repair to them to coal, and to be supplied with provisions and to refit, they may find the coal there, they may find the means of relitting there, and they may find the means of shelter there, while they are relitting. Such are the objects of these places. These naval stations should certainly be garrisoned by imperial forces. This, however, is a very different matter from the garrisoning of colonial possessions which are not required for the support of our fleets. It is a question of arrangement whether the naval stations should be garrisoned by purely military forces, i.e., by troops of the Line, or by marines, or by sailors landed for the purpose. As between marines and troops of the Line, it is a matter for consideration between the Admiralty and the War Office, and probably it is of no great consequence under which Department the garrisons for our naval stations are maintained. There might perhaps be certain advantages in placing them under Admiralty jurisdiction. only rose, however, to give my adhesion to the general principles of the lecturer, for I have not gone into his details sufficiently to be able to form an opinion upon them. But whatever conclusions may be arrived at respecting the details of his proposals, I am sure we must all agree that it is very cheering to hear the question of our naval and military defences treated in the comprehensive manner in which they have been regarded by Captain Colomb.

General LEFROY: My friend Colonel Jervois put a word into my mouth that I did not use; I said nothing about great forces in the colonies, what I said was that the British scarlet ought to be there, I do not care how small the force may be. I do not say that 70,000 men should be in Canada, but I do say that the British ensign should be there, if it is only a corporal's guard, and I would rather have that corporal's guard there, if war broke out in America, than have only colonial

teaans.

Colonel EVELYN: In the very interesting speeches that have been delivered this evening, I have been somewhat surprised at not hearing more about the details of Army organization. I take it that the general principles of military organization should consist of keeping your troops, when on peace establishments, always fit for the reception of an enormous accession to their numbers when put on a war footing, I think that is the main thing—that your army on a peace footing should be of moderate strength, but should be fitted for the reception of vast access of numbers in time of war. should certainly learn from our neighbours when we can, and it is observable in the late war that the Prussians did not raise a new battalion, or a single new battery or squadron, when they went to war. They had the cadre of everything ready, they had only to recall their old soldiers to their colours, and their army was at once on war footing. What should we do if we had to take the field with 150,000 men in Belgium or elsewhere? We should have to raise new regiments, with Officers and men knowing nothing of each other, in fact, we should have to reorganize our Army. We have at present no organization for the reception of the men even if we had adequate reserves. Though it is true that young soldiers fight extremely well, I think it is doubtful whether a new regiment fights as well as an old one. If you have an old regiment, with esprit de corps, and historical associations, I think you may infuse into its ranks a number of recruits, without diminishing its efficiency. But if you form your recruits into new battalions, you do not get a force that can be depended upon. Now the Prussians have shown us that large companies are not an inconvenience on service. They have companies of 250 rank and file, and have shown us that that is a good and useful number in an European campaign. If that is the case, we have at once a simple means of changing at any time our infantry from a peace to a war footing by raising the companies from their present small strength up to 200, and 250 rank and file each. If that be possible, we could with our present organization increase our force four or five fold, and put them on a war footing without raising a single new regiment, though this would, of course, necessitate the division of our present regiments into two or three battalions. The same principle might be applied in a great degree to the cavalry and artillery, though those special arms ought certainly to be kept on a much fuller strength than infantry, because they take much longer to prepare. I understood Captain Colomb to recommend that the Militia, particularly the Artillery Militia, should be out for a year. (Captain COLOMB: That in every case the Militia should have a year's training when first embodied.) I hope in the course of two or three years that the Militia will be embodied; but it is the fact that at this moment the Militia could not be embodied; it is not in the power of the Government to embody the Militia, unless we are in a state of war. It is a great pity that the terms of a militiaman's service are not simplified. There has always been some extraordinary restriction introduced into the Act under which he serves. It has led to all sorts of misunderstandings, almost to a mutiny. When I first belonged to the Militia, the men were only bound to serve when the country was in "imminent danger of invasion," not during any war; but the men were then called on to serve during the Crimean war when there was no danger of invasion, and they were embodied under a fresh Act. But the men who had been previously enrolled under the old Act said, "We won't stay; we are only liable to be embodied in case of imminent danger of invasion, and you call us out now when there is no danger of invasion." The Militia was really reduced to a state that was dreadful. It was for a time only fit for disbandment. The regiment to which I belonged behaved, comparatively speaking, particularly well; that is to say, not more than one-third of the men refused to come to parade. I leave you to guess how some other regiments behaved. Well, the Government had to give way, because the men were in the right, and Government had to let any militiaman who liked, have his discharge, and those who were willing to remain were re-attested under the new Act, and received a new bounty. The Act which was in force when most of the men now serving in the Militia were enrolled, does not

render them liable to permanent service except when this country is at war; so that, unless we are at war with somebody, we cannot embody the greater portion of the men who now form the Militia; it is only the men who have been enlisted since the 9th of August last, which is the date of the new Act, who are now liable to be called out for embodied service. There is still a stipulation in the present Act which may be the ground of future complications. It is that they could be only be called out on a "great emergency," whatever that may mean. Whatever a "great emergency" may mean, it can hardly mean the normal state of affairs. Now, as Captain Colomb thinks, and a great many other good judges think, that a certain portion of the Militia should always be embodied, it is a question whether the men would not say, "Oh no, we only engaged to serve in a great emergency, how can you call us out to serve when there is no emergency in particular." So it is to be hoped that there will be another Militia Act brought in, in which the words "great emergency" will be left out, and that the Secretary of State for War will have the power to call out the Militia whenever he thinks it necessary. He should be the responsible man; it should depend upon him, and not upon the militiaman to say whether the force should be called out or not.

Licutenant Colonel Leanx, R.E: I beg to add my testimony to the value of the paper that has been read, and to the able manner in which Captain Colomb has recapitulated the principles which ought to be borne in mind by all those who consider our military and naval reorganization. He has very properly pointed out that the two subjects cannot be considered separately, and I am much inclined to think that the naval and military organization of this country will not be put on a proper footing until there is one War Minister, who shall direct the policy both of the Admiralty and the War Office. Of course, to enable an individual to do this, it would be necessary that he should be relieved from the administrative details of those departments, and from the responsibility which now devolves on the Secretary of State for War, and on the First Lord of the Admiralty respectively, in respect of decisions on technical questions. Such a course, if it should ever be adopted, would enable the heads of the naval and military departments to be taken more frequently from Officers of distinction in their respective services, whose opinions would be regarded with confidence by the country and the services.

I take this opportunity of observing, with reference to what the lecturer and Captain Hoseason have said, that I do not think the country or the Parliament can be accused of parsimony in dealing with the naval and military services. I believe if they had greater confidence in the administration, that there would be no lack of funds to carry out the necessary reforms. Captain Hoseason told us that there are five hundred millions of trade annually affoat on the seas. It is equally true that we pay for our naval and military services at home and in India a sum approaching £10,000,000 a year. Now, 8 per cent. is not a low rate of insurance. I believe that the money now spent would, if administered to the greatest advantage, produce

a naval and military force that England need not be ashamed of.

With very slight qualifications I am prepared to endorse the general principles that Captain Colomb has laid down. I think it is a question whether the colonial stations enumerated in his previous lecture,—with the single exception of Bermuda, which I think ought to be placed on the same footing as Gibraltar and Malta,should not be looked upon as naval stations. I have long advocated that the infantry garrisons of those stations should be taken from the Royal Marines. As regards Canada and Australia, when I first wrote on this question, I submitted for consideration that it was desirable that weak second battalions or cadres should be kept in those colonies, to be filled up in time of war by men who had passed through the ranks of the regular Army, and who had settled in the colonies. I believe in that way the outflow from emigration, which is stated to be one of the obstacles to recruiting, might be made the means of filling the ranks of our army in our colonies in time of war, and of attaching to the British colonies a desirable class of settlers. It would be a gain to our military forces if a large proportion of men, all trained soldiers, of from 3 to 21 years' service, could be induced to settle in the colonies, with the liability to join a battalion in that colony. We should thereby meet General Lefroy's point of flying of our flag in the colonies, and at the same time adding to

our military forces at little expense to the Imperial Government. With that single qualification I am prepared to endorse the general principles of colonial defence that Captain Colomb has so ably laid down.

I shall now pass to some of the details that he has indicated. With regard to the details of the service with which he is more particularly cognizant,—the artillery service, I have little to say. I think he has taken right ground in proposing that the artillery corps should have permanent head-quarters. I would beg the meeting to bear in mind that there is a great distinction between "permanent head-quarters" and "localization." I think, however, that the number of permanent head-quarters is a great distinct of the artillary in the principal in the princip he has indicated for the artillery is rather limited. In addition to Chatham, Portsmouth, and Plymouth, I think there are other stations throughout the country, for example, the Mersey, the Humber, the Tyne, the Firth of Forth, and Harwich, at which opportunities could be afforded for training artillerymen in the management of heavy guns. Considering that the artillery service is that to which our localized Militia and Volunteer forces can in many cases be most advantageously trained, I think it would be desirable to have a larger number of artillery head-quarters.

The next point that Captain Colomb touched upon is short service. There I venture to say that he has misapprehended the term. "Short service," to my mind, should be designated the period of service required to train and discipline a soldier. This period has been laid down by the highest military authority as three years for an infantry soldier. It is the period for which the Prussian Government so long and so stoutly stood out. It is the period of service by which-as I gather from his speech in the House of Lords-the Duke of Cambridge is prepared to abide. I therefore define "short service" for an ordinary soldier to be three years. In the case of men of superior educational qualifications, the period of service is reduced in Prussia to one year, and the same rule might possibly obtain in this country. Any attempt to combine efficiency of the regular Army with a shorter period of service will in my opinion lead to failure. I maintain that service in India should be an entirely separate engagement from the short service of our soldiers at home. Irrespective of other considerations, it is one of the distinct recommendations of the Royal Commission on Recruiting that no soldier should be sent out to India until he is seasoned, and they lay down two years for the period of seasoning. My proposal conforms to that view. It is understood that the Indian Government has remonstrated against the class of recruits that have lately been sent out to India, one consequence being that the death rate among the troops of India has increased by, I believe, 1 per cent. I therefore maintain that it is desirable that none but seasoned soldiers should be sent to India. I think also that an attempt to extend short service to seven years would fail, because if we were to take men for so long a period from their industrial employments, we should not get a sufficient supply of recruits to carry out to the full intent the principle of "short service." I think it will also be attended with failure if we throw back on the civil population, without pay or pension, men who have served eight or ten years in the regular Army, a part of the service being in India. I think the true principle upon which to get recruits is to send back every man who has served his full time in the army, a contented man, and then he will find two men ready to come in his place. With a proper application of the "short service" principle, probably a three years service, and taking the Government estimate of recruits, namely 32,000 a year, we should be able to remit into the Reserve 23,000 trained soldiers a year; and in that way we should very soon get an efficient Reserve, and a large proportion of our Militia force would ere long consist of men who had served three years in the Army. With regard to the figures of Captain Colomb, they agree very nearly with those that I submitted for discussion within the last few weeks. I calculated the field Army in England, including the Militia, at 250,000 men, and the garrison Army at 120,000, of which a small proportion only would be under the colours.

The next point I notice in his paper is that he adopts the double battalion organization, which I always advocated. I believe this to be a detail necessary for the successful application of the short service principle to our existing regimental

I must, however, entirely dissent from Captain Colomb's mode of raising and local-

izing regiments. I first took up the question of Army organization, consequent on a conversation with Sir John Burgoyne, in which he said that he would like to see the short service principle applied without breaking up our old established regiments. Acting upon that suggestion, I endeavoured to work out a plan such as would admit of the application of short service to our regimental system, and maintain our long established regiments; and I submit that I do not believe localization is necessary.

established regiments; and I submit that I do not believe localization is necessary. The Royal Commission on Recruiting say that it is neither "desirable" nor "expedient" for our regular forces. Localization is a necessary detail of the Prussian principle, because conscription is part of their system, and localization is introduced to lessen the tax of enforced personal service. Where there is no conscription, localization is not necessary. The proposal to localize the infantry gives rise to difficulties, especially the Irish difficulty, which I think it is unnecessary to create. I think Captain Colomb's proposal to garrison Ireland by detachments from English and Scotch regiments and to remove the Irish Militia from Ireland, for garrison duty to England in time of war, is a scheme that will not commend itself to military men or to statesmen, and I am sure it would not be favourably received in Ireland.

I am, however, glad that Captain Colomb has acknowledged this difficulty, and proposed a remedy, thus giving an opportunity of stating objections to his proposals.

Captain MONGRIEFF: After the very able paper that has been read, and valuable remarks that have been made, on this subject, I am reluctant to say anything; but I should like to notice the views of the last speaker, and also a statement which fell from Colonel Evelyn. At the beginning of his remarks I was inclined to differ from him, because he wished to bring the subject back to matters of detail. I think we should feel very much indebted to Captain Colomb for having lifted this question out of the inextricable details with which it has been surrounded. I have no doubt that at this moment they are in another place (the House of Commons) even more seriously embarrassed with these details than we are here. I believe that this subject, in its present state, is much more likely to receive successful treatment, if dealt with first on general principles, as Captain Colomb has treated it to-night. He deals with matters which are of vital and imperial importance, necessarily embracing the whole British possessions within their scope. I myself believe that a great deal of the embarrassment which has arisen lately has been due to the action taken by a class of politicians who say that their motive is peace—that they must have peace at any price. But I fear that they are the most warlike people we have in this country, because they shut their eyes to facts, and if their policy is pursued, it will inevitably lead to aggression on the part of ambitious and warlike neighbours against our wealth and commercial system. It is a maxim in war, that the side which takes the offensive can always conduct operations with smaller numbers, and at smaller expense and suffering to its own people than the side which remains upon the defensive. We have seen this illustrated in the late war. Our forefathers did not tolerate a fallacy that affects to some extent modern English opinion; their maxim was, that England should always fight her battles on another soil. And I think the reasons for continuing this policy are greater, and stronger, now than ever existed before. The same laws which apply to strategy in war perhaps apply also with even greater force to the policy of nations. If England allows herself to drift into juxtaposition with any powerful and aggressive military state, which can also command naval resources, we shall then certainly have to maintain much larger armaments at much greater expense than we do at present. With our great colonial possessions and commercial relations, I believe the only way in which we can command security at a reasonable expense, is to carry out on broad principles a well-organised scheme of combined naval and military defence, such as that which has been sketched out by Captain Colomb. With regard to some remarks from Colonel Evelyn as to the state of the Militia, and bringing us back to details, there is one point, in my opinion, of the greatest importance, namely, that the Militia of this country is kept in a most unsatisfactory state; it is hampered in such a way that the men really do not know what their position is, whether, in fact, they are soldiers or not soldiers. I confess I was very much surprised to hear the account given by Colonel Evelyn of nis own regiment, and protest against the deduction he drew against others. My experience in the Militia extends back to 1855.

Colonel Everyn: What time in 1855? Captain MONCRIEFF: I got my commission carly in 1855, but was for some time with the British Army in the Crimea as a Militia Officer, and therefore did not join the regiment at once. I believe that the Militia, as a rule, if they are properly treated, would be as ready to go to the front, either for defensive or offensive operations, as any portion of Her Majesty's forces. But they must be properly treated; they must be treated as soldiers; and if so, I believe they will respond to that treatment, and may be thoroughly relied on. I hope in future that if the Militia is to be calculated upon as an integral part of the military force of this country, that the fashion of draining that force to feed another one should be given up; and that when the Militia is called upon to act, it should be permitted to do so as battalions, not as individuals. We know very well that the great majority of the regiments of the Line were once Militia regiments; they have been taken into the Line in time of war, and have not been returned again. If any contingency should arise in which this country is vitally threatened by a powerful enemy, we cannot expect to have a sufficient reserve of the regular Army, however much is done to create one; we must fall back upon the Militia, as has always been the case in serious need. The Militia should, therefore, be put in a position to have a portion of its force always thoroughly trained, as well as the Line, and ready to take the field. When once England puts half-a-dozen Militia regiments on the Continent, she by that single act makes herself a first-class military power; because its numbers are inexhaustible, and I am confident of this, that if one regiment volunteered to join the regular Army in the field, every regiment that had been embodied long enough to acquire a proper esprit de corps would be ambitious to do so also, and to have the same honours upon its colours. I cannot help thinking that our statesmen have not used sufficiently that old constitutional force. They do not require to copy other systems to get security. If they will only treat the Militia in a proper way, I believe we should be able to meet a great many of the military requirements of the country, and obtain at a small expense the security we desire. There is no purchase question, or anything of that kind, to obstruct the path of reform and reorganization for this force; it is merely that our rulers cannot see the nature of the magnificent engine at their disposal, which has only to be put in proper gear to enforce, along with the Navy and first Line, the decisions of, or repel outrages on, the British race. I hope to see the day when the Militia will be more acknowledged as an important part of our military system, and when it is, I can confidently predict that it will be ready to meet any requirements from it demanded.

The Čulirman: Captain Colomb, will you now reply to the observations which have been made?

Captain J. R. COLOMB: First of all, with reference to General Lefroy's remarks, they have been a good deal corrected by Colonel Jervois. In bringing this subject before you, I could only deal chiefly with the defence of the Imperial bases. But if you look back to my papers, you will find that the principle upon which I rest the whole system, is the defence of the Empire, including the colonies. And I say you must apply to the Empire as a whole, the same principle which you would apply to any country. You must command your communications, and instead of scattering forces all over the country, I place forces at the cross-roads, in point of fact; and thus by strategy make good the deficiency of numerical forces. With regard to the British scarlet, I quite agree with General Lefroy; but I say I would let the British scarlet be worn by the men who have the more direct interest in the defence of the colonies. They are the people of the colonies. I would give them every facility with regard to experienced Officers and military equipment; but the scarlet should be worn, I consider, upon the backs of the population who are most interested in the direct defence. My general principle is this, that those colonies whose position is not such as to render them of great value as military posts to the Empire, must defend themselves; and those colonies which are necessary to the Empire as military posts we must strain every nerve to hold. It will therefore be easily understood that when General Lefroy implied that I

meant to withdraw military forces from the colonies for financial reasons, it is purely on military grounds that I would do so. With regard to the marine garrisons, I wish to correct an impression conveyed by one remark of Colonel Jervois. The marine garrison is to my mind of great importance, for this reason, to secure communications you will require a very large fleet, a fleet that you will not likely have in peace; and I think if you have your marine garrisons or naval forces at your naval head-quarters, and if you have that naval force in reserve ashore, and the ships in reserve, you can at any moment expand your forces for the protection of colonial communications by simply drafting out a garrison army to take its place ashore, you will thus relieve the immense strain brought upon our home reserves (ships and men) by doing so. Therefore, it is a part of my scheme that these strategical positions should be held during peace by naval forces in reserve. With regard to Colonel Leahy's remarks, I will make my answer as brief as possible. First of all, with regard to this question of localization, I think he and I differ more in respect of a particular term. He advocates fixed head-quarters; I advocate fixed headquarters. I say localization is to make military connections lie in the same direction as a man's civil connections. (Colonel Leaux: Fixed head-quarters for artillery, I say.) With regard to short service and localization, I am unable to see how the two things can be separated, and I will tell you why. The object of short service is to turn a man back upon the civil population and let him support himself, holding him liable to rejoin the military service. That man is absolutely serving in a particular district; and he will continue to serve as long as he is in the Reserve in the district where his civil connection is strongest. Therefore, I cannot see how you can set aside considerations regarding locality. The shorter the period of service, the stronger are the links that bind a man to a particular locality; therefore, as regards the military machinery by which the short-service man is to be supervised and trained, the more do circumstances connected with locality influence the construction of the military machine. Colonel Leahy lays great stress upon the fact of localization being necessary in Prussia, in order "to lessen the personal tax." If that is the object of localization in Prussia, the greater the personal tax in military arrangements, the more the retaining fee must be increased to induce men to serve under the voluntary system in the Reserve. Under the voluntary system, I think, it is more necessary "to lighten the personal tax." Under the compulsory system you can force any amount of inconvenience upon men by law; but with regard to the voluntary system, if you increase the personal tax, you relatively diminish the inducements to serve. Therefore, I say that if in any country where there is conscription it is found necessary to diminish the personal tax, as Colonel Leahy calls it, I say it is doubly necessary where you have the voluntary system. With reference to the age of men going to India, that is a pure question of when you enlist them. In Prussia they do not take men till 20 years of age; and I should be a strong advocate of trying to get as many as possible over 20 years of age. There is a greater willingness on the part of the men under 20 to enlist; therefore, by leaving in peace a great stratum of the population untouched until you want suddenly to enlist new men, an advantage is gained. With regard to the fixed head-quarters of the artillery, I must just make one remark. I was merely illustrating a general principle when I named the great fortresses as the only head-quarters of the garrison Army. This is the principle: That with regard to the head-quarters of the militia artillery corps, wherever there is a battery of strategical importance, there I say you should have militia artillery, and nowhere else.

The CHAIRMAN: You have heard Captain Colomb's very valuable paper. I think it reflects very great credit upon our service that three such valuable papers as Captain Colomb has read, Colonel Leahy has read, and Major Edwards has published, should have been produced. They show that we have in the service men who

^{*} I desire to remark that I did not reply to the objection raised—"that the Royal Commission of 1866 thought localization neither expedient nor desirable"—because the Commission reported in favour of long service, and I only consider localization to be necessary in the case of short service.

think deeply, and who express themselves well on such important military subjects. At any rate, whatever our deficiencies in other respects, we have men among us who thoroughly understand the wants of our service. I congratulate you upon another thing, not only upon what you have heard, but upon what you will not hear, for as your Chairman, it is not my intention to detain you at any length. I daresay you will bear with me for a moment while I make allusion to the reference made by the last speakers to another place. I refer to the important discussion that is taking place to night in Parliament upon army matters. We must all be aware that the issue of that discussion must be of great good or great evil to our service. I am sure you will join me in wishing that that discussion may end, whatever may be the issue, in retaining in the army that noble class of gentlemen who now fill the ranks of commissioned Officers. If we preserve the same fine youth, the same noble English manhood, the same gentle English blood in our commissioned ranks, I am sure the Officers of the future will respond most cheerfully and most successfully to the appeal that the Government and the country are now making to the Officers of the Army, in their awakened sense of the importance of scientific education. I am one of those who admire the youth of our Army. After an experience of 51 years, I think they are the finest youth in the world, and that they do not deserve the reproach that is cast upon them, viz., that they do not attend to professional and scientific education. The lackes have been on the part of Government. There was my own beloved father, a practically scientific man, who for years was imploring the Government not to abandon their educational institutions, but rather to strengthen and increase them. But no, these were all abandoned, and the impoverished Institution which produced a few educated men, was absolutely strangled. The Government discredited professional knowledge by not employing these men. Hence it is that our Army is not so professionally well educated as it should be. But a new era is coming, and I repeat that if the same good and gentle blood is kept in the Army, I shall have no fear as to its future. But there was in the House of Commons the night before last two reasons assigned for doing away with purchase, which I entirely and utterly repudiate. As I read in the papers, it was stated as one reason for doing away with purchase, that the purchase Officers never went on service in the field, or upon service in the colonies, without thinking of the danger they incurred in connexion with the prices of their commissions. 1 call to witness against this statement the blood of our noble Englishmen that has been poured out like water, without one single thought of consequences. And I utterly deny the other reason stated, viz., that scientific knowledge is not to be acquired by purchase Officers. I call as evidence against that assertion the history of the past. There was Sir George Murray, Sir Charles Napier, Lord Hardinge, and a galaxy of men, all purchase men, who were trained under my own father. I say the purchase system has produced men of the very greatest eminence, not only in practical professional knowledge, but in professional science. Therefore, I assert that two wrong reasons were assigned for doing away with purchase. If it be done away with, I am sure you will all join me in saying, God grant that it may turn out for the best for our service.