

MANŒUVRES OF THE 1ST AND 2ND ARMY CORPS, AND IMPROVEMENT IN THE INFANTRY RIFLE.

*Report of the 25th September, 1869.*

I. Manœuvres of the 1st and 2nd Army Corps.

The great autumn manœuvres at which the King, accompanied by all the Princes of the Prussian Court, the Princess Royal, many Generals, amongst them, General Moltke, and 60 Officers from all the countries of Europe, Spain excepted, were present, lasted from the 6th to 18th September, viz. :—

Those of the 2nd Army Corps (Pomeranians) from the 6th to the 11th, near Stargard.

Those of the 1st Army Corps (Province of Prussia) from the 13th to the 18th, near Braunsberg.

The six days each of these manœuvres lasted were employed as follows :—

1st Day, Review of the Army Corps by the King.

2nd Day, Manœuvres of the 2nd Division against a skeleton enemy.

3rd Day, Rest.

4th, 5th, 6th Days, Manœuvres of the Divisions against one another.

I attach to this Report two maps of the theatre of manœuvres, as well as the programme distributed to the foreign officers.

Those French officers who desire to have an idea of the operations will find a detailed account of them in Nos. 78 and following, of the *Militär Wochenblatt*, to which our *Depôt de la Guerre* subscribes. The battalions were, on an average, about 500 strong and the strength of the Army Corps was from 17,000 to 18,000 men.

The second day the two divisions manœuvred against a skeleton enemy. The greater part of the Prussian Generals do not approve of this method of exercising troops. They say that it gives officers of all ranks false ideas, both with regard to the extent of ground that troops in reality would occupy, and the time requisite to perform real movements. Officers, they say, cannot accustom themselves to measure accurately the space occupied by a regiment, a brigade, or a division, when acting against a skeleton enemy; in addition to which they conceive an erroneous idea, of the time taken by a regiment of Infantry or Cavalry to pass over a certain distance, because the company or troop representing them moves so much more rapidly. These are well known faults, found for a long time with such manœuvres.

The last three days have been devoted to the manœuvres of division against division. They have been quite as interesting as those executed last year by the Guard Corps. As I have given a full account of the latter, I will limit myself

here to a succinct account of the general nature of the movements. The two hostile divisions bivouacked in the open country without tents, and in selected positions.

The out-post duty was performed exactly as in war. During the night the Army Corps General sent to each of the Divisional Generals, who were opposed to one another, the general idea which would serve as a basis for the operations of the following day. Each of the Divisional Generals was at perfect liberty to take any course he chose to obtain his object. The Army Corps General reserved to himself the power of modifying at any moment, either by telegraphic orders or orderlies, the dispositions first given. Generals not belonging to the Army Corps are detached to each division as judges.

At the end of each manœuvre, the Commander-in-Chief designates new camping ground, and in the course of the evening or the night he sends to the Divisional Generals a sketch for the manœuvres of the following day.

The troops thus manœuvre each day over different ground unknown to the Generals and officers. The space worked over during the three days may be taken as a square of some 13 or 14 miles. I have been struck this year, quite as much as last, by the fact that the infantry is always handled better both by its Generals and officers of all ranks than the Cavalry or Artillery. I would again bring prominently to notice the excellence of the Company Commandants. By their general and professional knowledge, by their zeal, and the spirit of progress, which animates them, they are the soul and nerves of the Prussian Infantry, and greatly contribute to render it formidable.

It might be easily seen how in these manœuvres they sought to avoid the faults committed during the battles of 1866, when all the troops, and even the reserve, scattered themselves into long lines of skirmishers.

They, however, fell into the opposite fault, for it more than once happened that the troops were placed under fire, in deep columns, at considerable distance in the line of battle from one another. As usual, great use was made of company columns, and columns of attack.

It is acknowledged that the Prussians were not at all satisfied with the part played in the war of 1866 by their Artillery. Since then a great many pamphlets have appeared upon the use of Field Artillery.

General Officers have been called on to familiarize themselves with the judicious use of this arm of the Service, and the last autumn manœuvres have been made a practical study of the subject. The King, who is accustomed after each manœuvre to assemble round him the Generals and Field Officers to criticise the movements, blamed the action of the Artillery on many occasions. One day he blamed them for changing their positions too frequently during an action; the following day he complained of the opposite fault, because a battery had, during the entire day remained in one place, 3,000 yards from the

enemy. I refer to these things to show how great a desire the Prussian Army has to study the use of Artillery in war. The chief fault the General Officers commanding the divisions, in the manœuvres at which I was present, appear to me to have committed, was, they did not distinguish between the chief phases of the action, and did not take the measures those phases rendered requisite. I will explain myself. The average duration of these manœuvres was three hours; now it almost invariably happens that in actual battles lasting so long, there are moments when, for some reason or the other the Commander-in-Chief ought above all things strive to reform his line of battle, either by supporting it with the reserve, fresh troops or some natural obstacle. It did not appear to me that the Generals took any notice of this necessity when it happened. They allowed the battle to continue all along the line without interruption, and without even taking time to reform the troops when such was requisite.

The manœuvre of the 9th September was a striking example of this. One of the two divisions had been forced back and compelled to retreat; 2,000 yards in the rear of its line there was a position strong in itself, and which extended between two villages, well placed to support the wings. The defeated division should then have fallen back on this position, covered by a rear-guard, and without loss of time. In place of doing this its General continued, although pushed by superior forces, to defend himself along his whole line, in the open country, and the judge decided he was beaten, before he had crossed one-half the space that separated, the strong position, from that at first occupied.

The annual manœuvres, termed the autumn manœuvres, are a school for officers and men, it is therefore but reasonable to expect faults to be committed. Instances where the Generals allowed the movements to be influenced by the very fact that the manœuvres were sham, might be cited.

At the manœuvres of the 11th of September, for instance, one of the Divisional Generals surprised his opponent and placed himself perpendicularly on his left flank. Unfortunately the movement was made so close to the enemy's line that the turning division was for three parts of an hour overwhelmed by Artillery and Musketry. The General who was being turned, ordered a change of front to the rear on his right, but he had not time to affect it, owing to the short flank march made by his opponent, who received neither shells nor bullets.

So far as the men are concerned, I can only again acknowledge the amount of instruction imparted to them, which, when the short service of the Prussian Army is taken into account, is truly astonishing. This result, as I already pointed out in previous reports, is due to the particular pains taken with their training during winter, as well as the zeal and goodwill which animates every one. I will report another time on

the attempts which have been made to introduce certain alterations into the telegraphic service.

It is a very interesting thing, especially for a stranger, to observe the different Prussian Army Corps with reference to the physical and moral qualities which distinguish them from each other, for being recruited in different provinces, each has its own characteristic features.

Exactly as would happen in France, if we had entire Army Corps composed some of Limousins, others of Bretons or Alsatians, each would have its own peculiar physiognomy. The various corps of the Prussian Army differ so much both physically and morally, that the General Officers are compelled to alter the principles of leading, and commanding them.

The 2nd Army Corps, which the Crown Prince commands, is recruited in Pomerania, and is composed of an energetic laborious race, a little heavy, [perhaps; they are generally of an average height, but bony, and strongly built. The Crown Prince said to me, "They are proud men, who will not endure an injustice; but well led, everything may be exacted from them in war, provided their bellies are full."

## II. Improvement of the Infantry Rifle.

I have already on several occasions referred to the attempts made, since 1867, to improve the infantry rifle. The superiority of our weapon has been acknowledged for some time by intelligent Prussian officers; as proved by my conversation with the King, of the 25th April, 1868 (*vide* report of the 8th May, 1868. The King then said to me—"We seek an improvement that will allow us to load more rapidly, and give a greater initial velocity. Several have been proposed to me, but hitherto I have been unwilling to adopt any. It is no light matter to alter 1,000,000 rifles, if it is not quite clear that the proposed alterations, offer a real and incontestable advantage."

Since then, an officer of the School of Musketry, has, I believe, proposed an improvement, which has been adopted.

Five battalions of five different regiments have been supplied with the altered arm, with orders to try it thoroughly, both for endurance and accuracy, so that the trials may terminate towards the middle of October.

I hope, if authorised, to study the details of this alteration, and forward the results in a short time. At present I confine myself to pointing out the nature of the proposed alterations; one refers to the rifle, the other to the cartridge. The improvement in the rifle has for its object rapidity of loading by suppressing one motion, and increasing the elastic force of the gas by a method of breech-closing, similar to that of our rifle (pattern 1866). The change made in the cartridge consists partly in a diminution of the weight of the bullet, and partly an increase in the depth to which

the bullet is enclosed in the paper sabot. It follows from these two conditions that the initial velocity is greatly increased, and that the rotatory motion of the sabot is more completely communicated to the bullet, by which means greater range, a flatter trajectory, and greater accuracy are obtained.\*

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FIRE OF FIELD ARTILLERY AND ARMS OF THE FEDERAL ARMY.

*Report of the 25th October, 1869.*

I. Fire of Field Artillery.

I am desirous of once more pointing out the extreme care taken here with Field Artillery practice.

It may almost be said that Prussian Artillery officers consider their breech-loading guns as perfect instruments, and seek to obtain as much advantage from them as possible. That which above all, continually strikes me is the great care that the field officers, take to make Battery officers judge distance, and instantly correct their fire. It has been recognized for a long time in the Prussian Artillery, that the officers and non-commissioned officers of a battery will neglect these details much less in war, if they are thoroughly impressed with their importance in peace, if they practise such things often enough, they will finally be done from habit.

I have been present occasionally at the practice of the regiment of Field Artillery of the Guard, under the command

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\* The documents Colonel Stoffel has been good enough to place at our disposal are all drawn up in the form of the Reports we publish. We find amongst them one which takes the form of a private letter written to the War Minister, and as it is dated 20th September, 1869, we believe it accompanied the foregoing Report. Colonel Stoffel gives some details of his journey to Pomerania and the great manœuvres of the 2nd Army Corps which took place there, and to which the King of Prussia had asked more than 60 foreign officers of every country in Europe. He praises the truly royal hospitality offered by the King to his numerous guests, and the perfect order that existed everywhere, and the arrangements made to render to the stay in the country as pleasant as possible to every one.

Our Military Attaché informed the War Minister why he only attended the manœuvres of the 2nd Army Corps in Pomerania, and why he did not follow the King into the Province of Prussia where the manœuvres of the 1st Corps took place.

We extract a passage from his letter.

"The Court and the guests went to Stettin on the 8th September. That day I passed through the town in an open carriage alone, and in uniform, when several persons, forgetting that I was the guest of their King, followed me, using abusive language, and calling me "French dog." Stones and mud were flung into my carriage. I took care to say nothing of this scene to any one, but resolved to return to Berlin, so soon as the manœuvres of the 2nd Army Corps were completed. Consequently, on the 11th September, under the pretence of urgent private affairs, I took leave of the King, and expressed my regret at not going with him to Königsberg.

"I should add that the people of Prussia proper, are those who preserve feelings of the greatest hatred against France, and that no French uniform has appeared there since 1813. It appeared to me, therefore, undesirable to expose myself to fresh perhaps more serious insults, than those I encountered at Stettin.

"M. de Bismarck, who had come to see the King at Stargard on the 11th September, was good enough to ask me to go with him to Varzin when he returned, and where I was his guest for some days."

of General Hohenlohe. This meritorious, energetic, and able officer exercises his batteries at field practice, as follows:— The Battery Commandant, so soon as he arrives at the range with his guns, unlimbers at a place pointed out by a field officer, and he judges the distance between the guns and the target. Each battery has a regimental telescope, which has its fixed place in one of the limber boxes. The Battery Commandant judges the distance, suppose 1,500 yards. He then orders, by a special word used at drill, to lay No. 1 gun with a range of 1,400 yards, No. 2 with 1,500, No. 3 with 1,600, and No. 4 with 1,700.\*

The first gun is then fired. Of three things, one must happen; the range is too long, too short, or the target is struck. In the first case the Battery Commandant can tell, thanks to the accuracy of the Prussian guns, that the range is less than 1,400 yards, and he therefore directs the three other guns to be relaid, according to the distance the shot has struck beyond the target. The second gun would then be laid at 1,300 yards, the third at 1,200, the fourth at 1,100. The second gun would then be fired; and if the range was still too long, the Battery Commandant would again correct the other two guns, and so proceed until the proper range was obtained. In the second case, if the first round was too short, the Battery Commandant would conclude that the target was more than 1,400 yards, and would at once correct the ranges of the other guns, laying them, for example, at 1,500, 1,600, 1,700 yards. The second gun would then fire, and so on.

If the first round, when fired at 1,400 yards, struck the target, showing that the distance had been correctly judged at the first attempt, the other three guns would not fire. They would remain loaded, the limbers would come up, and the battery would move off at a trot, either to the rear or the front, and take up a new position, pointed out by a field officer. Then the guns would again come into action, and the Battery Commandant, in a new position, would have to judge *the distance of other targets*, without reference to the first. He has then to act as I have described, and is compelled to judge the distance by the telescope, and correct the laying of the guns at each round until the target is hit. The rule is invariably adhered to, that once the target is struck, the other guns, although loaded, do not fire at that range. They see no instruction in firing them, and prefer rather to reserve these rounds for exercising officers and men in firing at other ranges. This is very different, indeed, from the routine method in which the practice of our field artillery is carried out.

I have been surprised every time I have been present at such practice by the accuracy of the Prussian field guns. Their sensibility (if I may use such a word) is so great, that I have seen a battery at practice shift its position five times before it

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\* In peace, Batteries have only four guns in Prussia.

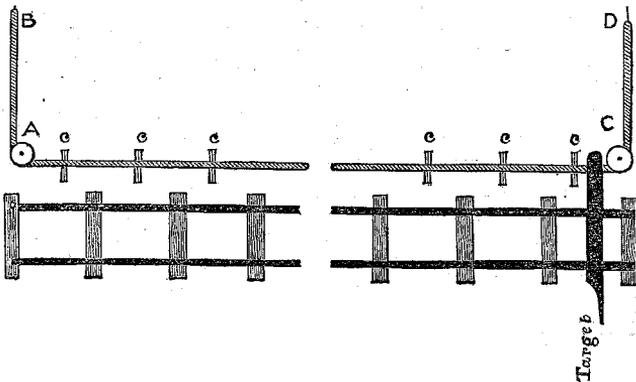
fired 12 rounds, or, in other words, the target had been struck after only two rounds (*vide* for details of the accuracy of the Prussian guns, the German memoir attached to my Report of the 20th February, 1868).

What I desire chiefly to bring to notice is the stress that in Prussia is laid on the correction of the range, and the care displayed by the officers and non-commissioned officers in *forming this habit*.

I have more than once, when in Paris, discussed these details with Artillery Officers. The replies they made are but another instance of our infatuation, and of that detestable pretension that we have nothing to learn. "It is not requisite to be a Prussian to know that in war the range must be corrected," said one officer to me. "All our officers know that without being taught." This is tantamount to saying, it is not requisite to teach men to march, preserve their dressing, or manœuvre, for when requisite they will know enough of these things.

In Prussia, it is said that many inevitable causes make officers liable to misjudge distance, and neglect the correction of their ranges, and the sound method to counteract this neglect is to teach these important details unceasingly, and with such care, that the habit once formed remains in all contingencies.

General Hohenlohe, who takes the greatest care in instructing the batteries composing his brigade of Artillery, made last summer in the ranges a moveable target, and he was good enough to ask me to be present at the trials. He obtained from a railway company some worn out rails, sufficient to make a road 500 yards long. He obtained from the Artillery stores, some condemned rope, and thus at a cost of 16*l.* he made a moveable target. As is seen on the sketch, the rope to which the target is attached runs from one end of the railway to another, being supported so as to diminish the friction of the ground by little cylinders of wood, *c, c, c,* spaced along the line. At the end of the line it turns round a kind of pulley fixed firmly in the ground, and at the end of the rope, horses are attached, who move the target, which is mounted



on two wheels running on the rails. When the target reaches the end of the railway towards A, it is made again to go back by hooking the horses in at D.

Grape is fired against the target in motion, when the horses walk to imitate Infantry, and when they trot to imitate Cavalry. These experiments have been most interesting, and have succeeded so well, that General Hohenlohe is going to lengthen the railway next year by an additional 500 yards.

## II. Number of Guns in the Federal Army.

I have already reported, that since the beginning of this year all the Artillery of the Army of the North German Confederation is provided with steel breech-loading guns. The Regular Army on a war footing requires 1,284 guns.

In case of mobilization each regiment of Field Artillery forms three *depôt* batteries; 39 in all for the 13 Army Corps, and three other batteries, called reserve batteries; these 78 batteries or 468 guns will be provided with the converted guns of the small States of the Confederation. If to these be added the guns of the Regular Army, there is a total of 1,752 guns; in addition to which Prussia has 500 or 600 guns forming the reserve matériel, making 2,300 guns in all. All this field matériel is complete and in perfect order. To it may be added the 200 guns captured from the Austrians in 1866, and now being converted into breech-loaders.

As for the small-arms of the North German Confederation, they consist of 1,500,000 of needle rifles, and 140,000 carbines, supposing all the military forces of the Confederation fully armed, 500,000 rifles and 50,000 carbines will remain as a reserve.

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## MILITARY TELEGRAPHY—THE BERLIN TELEGRAPH, AND THE MILITARY CONVENTION.

*Report of the 17th November, 1869.*

### I. Reorganization of the Military Telegraphic Service.

The Military Telegraphic Service has been reorganized on new principles. The reason being that its importance was thoroughly appreciated in the war of 1866, and that people were not quite satisfied with the way it worked. The first army, (Prince Frederick Charles), was the only one where, thanks to the zeal of the staff, the telegraphic service has completely performed its duties, but elsewhere it has left much to be desired. It happened, as I can testify, when the Emperor sent me on a mission to Bohemia during the armistice of 1866, that on several occasions, the telegraph poles were used as fire wood, and the wire to tie horses with.

Prussia is too watchful and too anxious for progress, not to seek and profit by the experience acquired in 1866, to improve this important service. She has laboured at it for three years, last year at the autumn manœuvres of the Guard some experiments were made. They were resumed this year during the grand manœuvres of the Second Army Corps in Pomerania; and as they were considered satisfactory, the reorganization may be considered as now completed and adopted. The essential difference between the new and the old system consists in dividing the telegraph service of the army into two distinct portions.

1. That of the Field Telegraph Division.

2. That of the Telegraph Division termed "etappen." The latter keeps up the communication from the rear of the army with the telegraphic system of the country. While the Field Telegraph Divisions freed from this labour, are attached to the army and solely employed in military operations, During the war of 1866 the Telegraph Divisions performed both duties, but experience showed that it was very difficult and very fatiguing for them to follow the movements of the army, and at the same time work the lines already established. The division of duties referred to above, was therefore deemed indispensable.

I had intended to make a special report on this reorganization of the telegraphic service of the North German Army, but while I was collecting the requisite information the 22nd volume of the collection called "Militärische Blätter," 5th paper, November 1869, appeared, which contained a chapter giving detailed information on this subject, and thus rendered my labour needless. I attach a copy of the 22nd volume to this report. The chapter referred to is written by an Officer of Engineers who formed a portion of the Telegraph Division attached to the Second Army Corps, during the great autumn manœuvres, when the new system was tried. He explains the reorganization, and points out the composition of the Field Telegraph Division, both in *personnel* and material, as well as the results obtained. This article is well worthy of translation for the instruction of our officers in general, and those charged with the telegraphic service in particular. I sent on the 20th September last a map of the country manœuvred over by the Second Army Corps, which will serve as a guide for the account of the telegraphic operations contained in the "Militärische Blätter."

I will confine myself to saying that in case of a great war the 13 Army Corps of the North German Army, would form four armies, each of which will have its telegraphic service, or as they say in Prussia, its telegraph column. Each column will be composed of three divisions. One, the Etappen Telegraphic Division, is destined to establish and secure the communication of the great Head-Quarters with the rear, and the network of State Telegraphs (as has just been said). The other two termed Field Telegraph Divisions, are charged with duties connected with

the operations of the army reconnaissance, subsistence, communications of the Head-Quarters with the various Army Corps, &c.

One detail given in the chapter already quoted of the "Militärische Blätter," is that the 92 Sappers (see page 373) which form a portion of the Telegraph Detachment, are taken from the Landwehr. An application of the principle to which I have so often referred, that in Prussia the *personnel* of the various exceptional services (companies of bearers of the sick, railway companies, and telegraphic divisions), are formed for war without decreasing the effective strength of the active army by drawing on the Landwehr as on a great reservoir. So much importance is attached to the telegraph service that it is proposed to increase the already very large number of establishments for military instruction in Prussia by making a special telegraphic school. Now telegraphy is a branch of instruction in all the military schools of the State, and it has been decided to have in winter, for Officers in the great garrisons, a course both of theoretical and practical telegraphy, given by a superior *employé* of the civil telegraph service.

In the same garrisons telegraphy is taught to the non-commissioned officers of the various regiments, who, in case of mobilization, will be employed on the telegraph lines of the State, where they would replace civil *employés*, who, in their turn, would join the army to be attached to the telegraphic service.

An increase of pay is given to these non-commissioned officers as an encouragement.

## II. Military Telegraph Communication with Berlin.

Since the beginning of my mission in Prussia, I have several times pointed out, when in Paris, both to the Emperor and the War Minister, as well as to other people, a fact that appears to me worthy of attention and well-deserving of study. There undoubtedly must be reasons why nothing has followed from my observations, but as I do not know these reasons I again return to the subject. I wish to speak of the existence at Berlin of a telegraphic communication direct from all the barracks to the King's Cabinet, the War Office, and the Main Guard. There are in each regiment twelve non-commissioned officers exercised in working the apparatus, who take the telegraphic duty between them week about. In ordinary times this institution is not of very great utility. But is it possible to deny the great advantages that might accrue from it if disturbances broke out, and had to be repressed? These advantages are too evident to make it requisite for me to enumerate them. It may be said, perhaps, that in time of trouble, the telegraphic communication would be quickly broken; but is there anything to prevent its being carried underground, safe from all attempts to destroy it?

There are besides frequent occasions, even in ordinary times,

when a method of telegraphic communication, such as exists at Berlin, offers undoubted advantages. I spoke last year with one of the Princes of the Prussian Court on the subject:—"These telegraphs," he said to me, "do not cost much money to construct, and you would hardly believe the profit we obtain from them, or rather the expenses of another kind that they save us. Let us suppose a great review ordered; and some hours before the moment when the King should go out, it begins to rain, will the review take place—Yes or No? Having at his disposal the telegraph, which communicates from his cabinet to the various barracks, the King can wait before deciding until the moment when the troops should march, and, if requisite, he can countermand the review in time. We thus prevent the arms and accoutrements of eight to ten thousand men being damaged by rain or mud. This is equivalent to a large sum; and if what the State has saved in this way, since the barrack telegraphs were constructed, was added up, it would be found that their construction has been profitable." When one thinks of the advantages of every kind which the establishment at Paris, at such a small cost, of such telegraphs, one can hardly understand why we do not follow the example of Prussia.

One of the distinctive qualities of Prussia is foresight. She wishes to be always ready, so that in any crisis she may get on a war footing as quickly as possible. She therefore has organized and prepared beforehand all that is useful and necessary. In France, we say, If we were involved in a great war, we would very quickly, in case of necessity, establish in our strong places, Paris, Lyons, Metz, and others, a network of telegraphs, to communicate between these places and the surrounding forts. Here they reason differently. They say, when war breaks out, the number of things to be done is very great, and they organize as much as possible beforehand. Thus Mayence, Coblenz, Cologne, and several places in Silesia, are supplied with a network of telegraphs, either completed or in course of construction, which put these towns in communication with the detached forts. Thus everything in the various military magazines of North Germany is ready, even to a spade-helve and a nail.

I would add, that at Berlin the Prefecture of Police is equally in telegraphic communication with the Police and Fire Stations. I spoke some days ago with the Prefect of Police, M. Wurmb, who has just returned from Paris, where he went to study the organization of the French Police. He was astonished that we had not at Paris a telegraphic network for police purposes. He told me he had expressed his astonishment to the Parisian authorities. "What did they reply?" I asked. "We do not want it."

### III. Berlin Contingent 1869.

The best informed newspapers say that last spring the Council of Revision, sitting at Berlin, examined 20,000 young men, twenty years of age, and found only 3,200 fit for military service, or one in seven. This has been much commented on, and several newspapers have raised a cry of alarm. Some parts of Berlin have not even furnished one recruit out of eleven young men who came forward. Scrofulous diseases have been the chief cause of this small number of sound men.

### IV. Military Conventions.

*Brunswick and Mecklenburg Strelitz.*—The only States of the North German Confederation which have not now concluded a military convention with Prussia are Brunswick and Mecklenburg Strelitz. The military relations of these Duchies with Prussia is governed only by the Federal Constitution (Paragraphs 63 and 64). These Duchies continue to administer their troops themselves. They do not form an integral part of the Prussian Army, as those of the Thuringian States, the Hanseatic Towns, and the Duchy of Oldenburg do. Prussia is by no means pleased that these two little States thus pretend to a kind of independence. The newspapers reproach them on every occasion, turning them into ridicule, and seeking to influence the officers of the two Duchies, by asking how they can consent to be contented with the slow promotion of an insignificant contingent, in place of sharing in the general promotion of the great Prussian Army?

*Kingdom of Saxony.*—Saxony has concluded, as is known, a military convention with Prussia. Nevertheless, on account of the importance of this kingdom, she has retained the administration of her own troops; and the Saxon officers are promoted only amongst themselves.

In accordance with the 4th Paragraph of the Federal Constitution, the fortress of Königstein and the fortifications of Dresden belong to the Confederation. The former has had, ever since 1860, a Prussian garrison. The 1st January, 1870, the fortress was occupied by the 1st Company of the 5th Battalion of Silesian Rifles.

*Grand Duchy of Hesse.*—The military convention of Hesse with Prussia dates the 7th August, 1867. It has been much spoken of since what took place this autumn at Bergen, during the manœuvres in presence of the King, when, for the first time, Prussian and Hessian troops were united together. The 4th September after these manœuvres, the King said to me that the instruction of the Hessian troops had not fully satisfied him; and, a feeling of pride mingling with his discontent, he added, "They have yet much to learn before they equal my troops." The King then, without doubt, determined to use the right that the 4th Paragraph of the Military Convention gave him, that of sub-

stituting Prussian for Hessian officers. For he directed several Hessian officers to be retired, and their places to be filled by Prussian officers, who he named to commands in the 25th Division. Thus, for example, a decision of the 7th November last, gave the command of the Brigade of Hessian Cavalry to the Prussian General Schlotheim, Chief of the Staff of the 8th Army Corps. The Prussian newspapers write that this must not stop there, that the Hessian Division must be purged. The officers of this Division (they allude chiefly to the field officers) who are not, according to Prussian ideas, equal to the duties, must simply be sent on furlough, and the others must not be promoted, until they have served a certain time in a Prussian regiment.

These measures have caused considerable discontent in the Duchy of Hesse Darmstadt, with which Prussia had hitherto kept on good terms, despite the taunts levelled at her. She is accused of being favourable to Austria; of ignoring the existence of a North German Confederation; of having newspapers, amongst others the *Allgemeine Militär Zeitung*, edited by discontented officers. She is reproached with not wishing to organize her military force in accordance with the basis adopted by Prussia, and in adhering to two-battalion regiments (4 regiments of two battalions and two battalions of rifles), whilst the remainder of the Federal Army has three battalion regiments.

Prussia wishes to substitute 3 three-battalion regiments and one battalion of rifles. Which three regiments would take the vacant numbers 97, 98, 99, which are wanting in the series of regimental numbers.

Hesse has hitherto refused to yield to the wish of Prussia; but sooner or later she will see herself compelled to yield, for she cannot sustain a prolonged struggle on account of the precarious position resulting from the events of 1866.

The step taken by the King in replacing Hessian by Prussian officers is important, when it is viewed in connection with the method in which Prussia accomplishes her work of absorption.

While the King has only acted as he was empowered to do by the Military Convention of the 7th August, 1867, it is not the less true that more than two years elapsed before he exercised this right. This fact is but a fresh example of the policy of Prussia as regards all the small States of the North German Confederation, as well as those of the South.

This policy consists on the one hand, in the use of tact hastening nothing, risking nothing, so that discontent should never exceed moderate limits; and on the other hand acting unceasingly, both openly and secretly, letting no opportunity pass, for placing these States, more and more, in a condition of dependence on Prussia.

In truth there is in Prussia a party who would desire to hasten matters, and settle the unification of Germany at the risk even of a war with France; but it is powerless to influence

the Government or the wise and moderate party; these, headed by M. Bismarck, clearly see that time is their best auxiliary.

They will do nothing that will give France much cause of alarm; they will watch the events which they themselves bring about, seeking to increase unceasingly the absorbing influence of Prussia, and they reckon that the day will come when, under the shelter of accomplished and accepted facts, the last step to complete the unification of Germany under their leadership, may be taken as a natural sequence from previous events, a consequence so simple and natural, that no Power can find cause to complain of it.

These opinions are not mine alone, they are those of a great number of sensible people, to whose opinion some weight is due. I could cite the ministers of various countries at Berlin, who are almost in a state of consternation at the rapid progress made by Prussia in three years on this road; I see that this progress is very evident and real. Prussia exercises over all the States surrounding her a very considerable attractive power, due to the education and intelligence of the nation, to her energy, force of will, and the faith she has in what she believes to be her mission. She knows that the discontent actually existing in the annexed States, and in those of the south, will gradually decrease, and finally disappear. She counts on time, her address, and, if need be, on her strength.

I would remark, besides, that people deceive themselves in exaggerating the discontent which exists in the small States of North Germany, consequent on the forcible annexations of 1866. Without denying the existence of discontent, it should be clearly understood that it is felt only by a small portion of the people. Compulsory military service has been cited as the chief motive for the discontent of the inhabitants of the small States. This is true only to a certain extent, for I have heard it said by rich well-to-do people in Hanover and the Hanseatic towns, that they thought it fortunate that their sons, when they reach the age of 17, should be compelled to serve for at least one year.

“Our children,” these persons said to me, “are compelled to labour with greater zeal than formerly to be able to pass the examination required from those who seek to benefit by the advantages granted to the volunteers of a year, and we do not murmur at their having to pass a year in the army at an age when they might feel disposed to spend their time badly. This year spent in the army as a school of morality and honour, is at the same time the best school they can have for discipline and obedience to the laws.”

To anyone understanding the German character, this opinion is not astonishing. The German yields easily to every exigency, even the hardest, when he sees its necessity and utility.

I attach to this report—

1. A copy of the 23rd volume of the “*Militärische Blätter*,” 5th number, November 1869.

2. A copy of a History of the School of Musketry at Spandau.

3. A copy of the Composition of the Army Corps and Stations of the Federal troops (Autumn 1869).

4. A copy of "Instruction for Riflemen," by Lieutenant-Colonel Hautelman.

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INSTRUCTION OF RECRUITS; DETAILED INFORMATION AS TO THE CAVALRY; AMALGAMTION OF THE ARMIES OF OTHER STATES.

*Report of the 17th January, 1870.\**

I. Instruction of Recruits and Detailed Information as to the Cavalry.

The instruction of recruits carried out every year with a zeal and care, unequalled in any other army, is this winter pushed forward with redoubled vigour. Orders have been given directing that every effort is to be made to enable the recruits to take their places in the ranks by the end of February. I do not think there is any other reason for this beyond the fact that, for economical motives it is proposed to give a number of furloughs in each army corps, to the men of different arms, Cavalry excepted.

I have already pointed out, that consequent on the short service in Prussia, the Cavalry instruction demands the greatest care and attention.

Every Cavalry Officer knows that he can only fulfil his task by the greatest activity and zeal.

Hence in each squadron Officers are on an average six or seven hours on duty daily, and the regimental riding schools are (as is never done in France) lighted at night, and the recruits succeed one another in batches all day long. Commanding Officers of Cavalry Regiments are directed not to lose time in making inspections and reviews, but to sacrifice everything to so called practical instruction. I beg to draw attention to the arrangement by which they seek to induce Cavalry soldiers to remain four years in place of three in the regular army. Those who consent to do so, serve only three years in the Landwehr, in place of five, and further, during their period of service in the reserve they escape the two trainings of eight weeks prescribed for reserve men. In addition to which they receive during the fourth year spent with the colours the increase of pay paid on re-engagement, and may be promoted to the first class, or even to the rank of Non-Commissioned Officer.

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\* We have nine Reports dated 1870. We publish the following five as the most interesting.—[Ed.]

Officers commanding regiments are requested to induce as many men as possible to re-engage.

I think it well to point out the error made with reference to this subject in several French books, where it is stated that the length of service in Prussia with the colours is four years in the Cavalry and Artillery in place of three as with the Infantry. The persons who write thus must have misunderstood the order of the 6th September, 1866, which is worded thus: "Cavalry soldiers, who on the completion of the third year of service shall re-engage for a fourth year, perform two years less service with the Landwehr, and are also exempted from appearing at reserve or Landwehr trainings." Paragraph 4 of the Instruction on Recruiting is thus worded: "Cavalry soldiers who voluntarily engage to serve a fourth year, serve only three years in the Landwehr."

*Fencing and Gymnastics.*—Commanding Officers of Cavalry Regiments pay now more attention to fencing and gymnastics. This arises (as I pointed out in my report of the 22nd July, 1868) from the experience gained in the war of 1866, when in several battles the Prussian and Austrian Cavalry got mixed after having charged, and it is thought that skill and activity cannot be too much cultivated by a Cavalry soldier.

Thus gymnastics have been made compulsory in Cavalry regiments, under the superintendence of the Commanding Officers of Squadrons, and a manual of gymnastic instruction for mounted troops has been drawn up.

This book has an appendix, giving a list of the articles that each corps must have to practice gymnastics. As for instruction in fencing in the Cavalry, much greater attention has been paid to it since 1866.

I have always from personal inclination, as well as duty, paid much attention to the instruction in fencing and riding in the Cavalry Regiments of the Guard and Line, being convinced that other things being equal, that which forms the essential difference between one trooper and another, is skill in handling his *horse* and his *sword*.

The result of my observation, has invariably been the same, it is, that after equal periods, the Prussian recruit becomes a better horseman than the French, but on the other hand, the latter undoubtedly excels in the use of his sword. One with another, the Prussian trooper sits his horse better than the French, and makes better use of the aids, thanks to the continual and intelligent instruction in riding given by the Officers and Non-Commissioned Officers of the squadron. But with regard to the use of the sword, it is curious to observe how justly and without prejudice the Prussian Officers see the truth. I have not met one who has not frankly acknowledged, that their efforts to make the men acquire the proper amount of skill were fruitless.

"It is impossible," say they, "to accustom our troops to use the point, they have an unconquerable propensity to strike great

“blows, exposing themselves.” In this respect they are at a marked disadvantage with the French soldier, who uses his weapon with more skill, and thrusts. I was speaking yesterday to a General who commanded a Brigade of Cavalry in Bohemia in 1866. He already knew of the Imperial edict of the 27th December, 1869, which directs the gratuitous and compulsory instruction of fencing in the French Army, and he acknowledged that this order, if properly carried out, would still further increase the superiority of our troopers.

The Army of the North German Confederation has 74 Cavalry regiments composed of 5 Squadrons, or rather 76, if the 25th Hessian Division be included. This gives a force on a peace footing with the colours of 55,500 men and 55,000 horses, or in other words one quarter of the effective strength of the Infantry (*vide* Table B attached to my Report, 24th June, 1868). This large proportion of Cavalry is due to the creation of 16 regiments in 1866, and the addition of a 5th squadron to each of the old regiments, which, prior to 1866, had only 4. The Generals have not altogether approved of the great increase in the Cavalry, and many would have much preferred to have seen the money spent on the Artillery. The formation of four Cavalry Regiments in the Thuringian States, spoken of some time ago, appears to have been given up.

I do not know the reasons which have determined Prussia to increase her Cavalry so much beyond the proportion hitherto laid down in the formation of armies as correct. Perhaps it may be inferred that in Prussia they do not believe that modern improvements in Artillery and small-arms have reduced the part played by Cavalry in war.

Doubtless people have said, that at the present day the greater number of the countries in Europe have been so altered by the progress of agriculture, by the construction of railways and telegraphs, and communications of all kinds, that Cavalry can never be sufficiently active nor vigilant to be in the full acceptation of the words, the eye and ear of the army. But if we reflect on the consequence of the changes of all kinds in various countries, we must admit that armies at the present day must be covered in their advance at far greater distances than formerly, and it appears therefore that Prussia has shown wisdom in increasing the proportion of her Cavalry.

Certain German publications are discussing the important question what is the best method of dividing Cavalry in modern armies? Should large Cavalry corps be formed, or is it better to distribute the Cavalry by giving a brigade of two or three regiments to each Infantry division? The latter opinion appears to be preferred, and the inaction of Cavalry in recent wars is attributed to the formation of large corps, which the Generals could not handle.

*Landwehr Cavalry.*—I mentioned two years ago the alteration made in the organization of the Landwehr Cavalry after the war of 1866. The formation by squadrons having replaced

that by régiments, they no longer distinguish the various kinds of Cavalry from one another, and it was proposed for war to attach to each of the 76 régiments of the Federal Cavalry two or three squadrons of Landwehr, forming 6th, 7th, and 8th squadrons. However, the old organizations are now preferred, and the squadrons of Landwehr Cavalry will, in case of mobilization, be formed into régiments which will be attached to the various Army Corps. This Cavalry will be employed in the fortresses in the interior, and recourse will not be had to it, to complete the squadrons of the regular army, except in exceptional cases.

In time of peace the Landwehr Cavalry is not formed into corps as the Landwehr Infantry is, it only appears on the muster lists.

It is the same with the Landwehr men of the Artillery and Engineers, they are intended in time of war to complete the Artillery and Engineers in fortresses, and to instruct troops at the dépôts of these two arms.

*Cavalry School.*—I have already detailed in a previous report the composition of the Cavalry School (corresponding with our school at Saumur). It embraces the Staff of the school and two district schools for officers, and non-commissioned officers, forming a total of more than 350 horses, 400 officers, non-commissioned officers and grooms, &c. Until 1867 the Cavalry School was at Schwedt, a small town situated on the Oder, but after the annexation of the Kingdom of Hanover, it was removed to the town of Hanover, a central position where there were already spacious well arranged buildings. Now it is proposed, notwithstanding the beauty and suitability of the buildings, to break up the school, and divide it amongst several garrisons of the second class.

The partisans of this measure support it on the ground of the great cost of living in Hanover, which allows only officers with private fortunes to live in consonance with their rank, and they are further of opinion, that by creating several Cavalry schools (one for two or three Army Corps), the instruction of the officers and non-commissioned officers would be improved on account of the emulation of the schools. This is open to argument. I only mention it because it is being actively discussed. It may be here remarked that Prussia does not admit the principal of centralizing establishments of this nature, there being seven war schools in as many different towns. In breaking up the Hanover School of Cavalry, and forming a school for two or three Army Corps, the principal adopted for war schools would be followed.

## II. Progress of Army Amalgamation.

As is known, the troops of the various small States of the North German Confederation are almost entirely modelled on those of Prussia in everything connected with rules, tactics,

arms, and equipment. Prussia believed herself called on to grant concessions only to the troops of the Kingdom of Saxony (12th Army Corps) and the Duchy of Hesse (25th Division), which preserve some special administrative details. But even these are daily becoming more and more assimilated to the Prussians, as the following fact proves:—In the Prussian Army the cost of a soldier's messing is composed, per man, per day, of two distinct portions; one which never alters, and is fixed at 1·9 pence daily; the other, which is fixed every three months, in each garrison, according to the price of provisions, and forms an increase to the messing. —*Verpflegungs-Zuschuss*.\*

A table of these additions to the messing is published each quarter, showing the amount fixed for that quarter in each garrison town in North Germany. That which governs the first three months of the year 1870 shows that at Berlin, for example, the addition to the messing is  $1\frac{1}{2}d.$ , whence it follows that the expense of a soldier's messing at Berlin is  $3\frac{1}{2}d.$  Now, what I want to draw attention to is, that the official table of the additions to the messing, as well as the allowances of bread and forage, includes, *for the first time*, the garrisons of the Kingdom of Saxony, and the Duchy of Hesse. Hence, we must conclude, that Saxony, and Hesse have made one step more in assimilating the administration of their troops to that of Prussia; and that the work of amalgamation, which for three years has gone on in various portions of the Federal Army approaches more and more towards completion.

### *Staff Journeys.*

The Staff journeys, to which I have several times alluded this year, take place in the 1st, 2nd, 3rd, 6th, and 12th Army Corps.

The Staff will this year endeavour to complete the triangulation of certain parts of the Confederation. A sum of 8,000*l.* has been granted for the purpose.

I attach to this Report—

1. A new Pamphlet by M. Becker upon his Method of Treating Fractures.
2. A Pamphlet by Colonel Taubert, upon the Employment of Artillery in the Field and at Sieges.
3. The Prussian Rules for Conducting Great Manceuvres.

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\* These additions to the messing differ much at the same time, according to the locality. The additions is  $\frac{1}{4}d.$  to  $\frac{1}{2}d.$  in East Prussia, and  $3d.$  in the Rhine Provinces. At Berlin it is now  $1\frac{1}{2}d.$

FORTRESSES; EDUCATIONAL ESTABLISHMENTS; NAVAL  
ARMAMENTS.

Report of the 22nd January, 1870.

I. Fortresses.

Lately four fortresses have been dismantled and suppressed.

Juliers (Province of the Rhine).  
Schweidnitz (Silesia).  
Silberberg (Silesia).  
Rendsbourg (Holstein).

The North German Confederation has now nine first-class fortresses, viz. :—

Upon the Rhine	..	..	..	{	Mayence.
					Coblentz.
					Cologne.
Upon the Elbe	..	..	..	{	Königstein.
					Magdebourg.
Upon the Oder	..	..	..		Stettin.
Upon the Wortha	..	..	..		Posen.
Near the mouth of the Vistula	..	..	..		Dantzic.
Upon the Prague	..	..	..		Königsberg.

All these fortresses are on Prussian soil, except Mayence and Königstein; the latter, situated in Saxony, a simple fort commanding the course of the Elbe, has been only placed in the first class to gratify Saxony. Stettin, near the mouth of the Oder will probably be soon dismantled. This town is in the same state as many other European fortresses. Its population and manufactures have increased so largely during the last forty years, that it has so to speak outgrown its fortified *enciente*, consequently the inhabitants have continually petitioned the King to suppress Stettin as a fortress. The warm reception they gave their sovereign last autumn will, doubtless, induce him to take an interest in the town.

It is acknowledged that the trace of all the first-class fortresses must be altered. But, for the present, they will limit the alterations to the construction of detached forts, without interfering with the *enciente*. At Mayence, Cologne, and Madgebourg, these works are either in progress, or the projects for them have been approved.

Since the addition of Sonderbourg, Duppel, and Kiel-Friedrichsort, there are fourteen second-class fortresses, viz. :—

Upon the Sarre	..	..	..		Sarrelouis.
„ Rhine	..	..	..		Wesel.
„ Weser	..	..	..		Minden.
„ Gera	..	..	..		Erfurt.
„ Elbe	..	..	..		Torgau.
„ Spree	..	..	..		Spandau.
„ Oder	..	..	..		Glogau.
„ Neisse	..	..	..		Glatz, Neisse.
„ Vistula	..	..	..		Thorn.
„ Baltic	..	..	..	{	Sonderbourg Duppel.
					Kiel Friedrichsort.
					Stralsund.
					Colberg.

It must not be forgotten that the North German Confederation is showing great activity, not only in improving the works of existing fortresses, but also in fortifying its ports, coasts, mouths of rivers, and straits.

The works in course of execution will place Kiel and Jade (Heppens) in the first rank. I have already reported that it is proposed to employ 5,000 men this spring at Jade, with the intention of completing, towards the end of the year, not only the harbour, but also the fortifications.

The defences of Kiel, and the construction of the military establishments there, will also be pushed with great vigour. It is also proposed to build several men-of-war, the total cost of which will be 600,000*l.*

The port of Kiel is not yet classed, nor are the forts at Boyen and Memel, both in course of construction.

It is the same with the works at Dresden, the *tête du pont* at Dusseldorf, Marienburg, and Dischau, and those which are now being built, or projected, at the mouth of the Weser or Elbe.

There are six fortresses of the third class, viz. :—

Upon the Elbe .. ..	Wittenberg.
„ Oder .. ..	{ Kosel.
„ Vistula .. ..	{ Kustrin.
„ Baltic .. ..	{ Graudenz.
	{ Swinemunde.
	{ Pillau.

If the North German Confederation should mobilize all its forces for a great war, the strength of the garrisons of these fortresses would be about 60,000 men and 1,700 officers.

## II. Schools and Educational Establishments.

It would be useless to recapitulate in this place what Germany has done to spread instruction amongst all classes of the nation. So far as military education is concerned, the following list of educational establishments will give a good idea of what has been done. I have italicised those created since 1866 :—

	{ War Academy.
	{ School of Artillery and Engineers.
	{ Central School of Gymnastics.
At Berlin .. ..	{ <i>School of Gunnery.</i>
	{ Laboratory School.
	{ Medical and Surgical Institute.
	{ Veterinary School.
	{ <i>Instructional Forge.</i>
Hanover .. ..	{ Cavalry School.
Spandau .. ..	{ School of Musketry.
Kiel .. ..	{ Naval School.
Potsdam .. ..	{ Instructional Battalion.
7 War Schools at Potsdam, Neisse, &c.	
7 Cadet Houses at Berlin, &c.	
4 Non-Commissioned Officer Schools at Berlin, &c.	
3 Military Orphanages at Potsdam, Annabourg, and Fretsch Castle.	

It is proposed to form, in addition,—

- 1 School of Military Telegraphy.
- 1 Railway School.
- 1 Fifth Non-Commissioned Officer School.
- 1 Special School for Artillery Non-Commissioned Officers.

In addition to which, the Kingdom of Saxony has—

- 1 Cadet House at Dresden.
- 1 Cavalry School at Dresden.
- 1 Orphanage at Struppen.

The greater part of the schools and establishments of the North German Confederation have, since 1866, been greatly augmented, and, at the same time, an organization better suited to their wants has been supplied.

Wishing to have some idea of the total number of officers, non-commissioned officers, and pupils, who receive instruction in the various establishments, I have procured from the War Office the requisite information, deducting the four Orphanages, which include 1,200 children, there are in round numbers—

Personnel employed in teaching	600
Officers, Non-Commissioned Officers, and Pupils	7,500

The eight Cadet-houses have 1,800 pupils, and the four schools for non-commissioned officers 2,000.

If the 1,200 children in the Orphanages be added, the total number will reach 9,000, which represents the number of teachers and taught the North German Confederation considers requisite to keep its military instruction up to the mark.

### III. Naval Armaments.

*Bronze, Steel, Iron.*

### IV. Armament of Ships.

*Bronze, Steel, Iron.*

The Prussian Artillery and Navy have watched with great interest the result of the recent experiments tried at Steinfeld, near Vienna, with heavy guns, both in bronze and steel.

The Artillery officers of the Experimental Committee, with whom I have discussed these experiments, think that Austria will finally determine to arm her men-of-war with Krupp steel guns. Prussia has led the way in experimenting with bronze and steel guns of large calibre. The trials made at Steinfeld on the 11th October last, when bronze guns were fired with charges of 24·2 lbs. and 28·6 lbs. of powder, were not new to the Prussian Artillery, who had fired the 8-inch bronze guns with similar charges some years ago. But it was then acknowledged that such charges were insufficient, and that it was absolutely requisite to attain the desired object (that of penetrating a 6-inch plate) to increase these charges to 37·4 and 39·6 lbs. The question to be determined, is to know, is it possible to construct

guns of bronze capable of resisting such charges, without being too heavy and of extravagant dimensions? It may be said that the problem had been solved, if it is considered that the steel 24-pr. and the bronze 8-inch gun produced almost the same effect, penetrating the 6-inch plate (experiments of September 1866 at Tegel and of October 1869 at Steinfeld). Yet the comparative weight of these two guns is striking.

Weight of 24-pr. Prussian gun .. .. .	7,150 lbs.
„ 8-inch Austrian gun .. .. .	19,800 „

If my information is correct, Austria decided, on the conclusion of the Steinfeld experiments, to adopt for her Navy, steel Krupp guns, and already she is arming her new iron-clad frigate, the *Lissa*, with 9-inch steel breech-loading guns. In Prussia, people are very proud of this result, which is looked on as a fresh triumph of Prussian intelligence and industry; and it is stated with pride that four Powers have now adopted the Krupp guns—Germany, Russia, Belgium, and Austria.

However, this feeling of pride is not unmixed with fear, lest the problem of naval armament, be solved elsewhere by the use of a less costly metal than steel, which would cause Prussia to deplore the heavy expense she has incurred, and is still incurring, and would deal a mortal blow to the manufacture developed by M. Krupp. Thus the trials made in Sweden, at Finspang, with iron guns are watched with a mixture of interest and anxiety. It is known that in these trials the 11-inch gun, and even the 9-inch gun has completely penetrated a 10-inch plate, and that these iron guns are adopted at this moment not only by Sweden and Norway, but also by Holland and Denmark.

Has Austria really adopted the Krupp steel guns for her Navy, or does she prefer the English guns? All that I can say for certain is, that the Austrian Government has given M. Krupp an order for 96-pr. guns (9-inch), the manufacture of which is completed, and the number of guns ordered is upwards of 20; these are evidently not for new experiments.

I only know of the experiments made by order of the War Minister with Petroleum as a preservation against mites, from the military newspaper *Militär Wochenblatt*.

I do not know if such experiments have taken place in France, and I attach herewith No. 106 of the *Militär Wochenblatt*, which gives an account of these experiments. The opinion of the Committee entrusted with the experiments is given in this newspaper.

## LENGTH OF SERVICE IN THE RANKS—THREE YEARS, TWO YEARS.

*Report of the 14th February, 1870.*

The Chamber of Deputies of the Grand Duchy of Baden has just arrived at a decision, the importance of which cannot be concealed, on account of the influence that it must, some day or another, exercise upon the military organization of the other States of Southern Germany (Bavaria and Wurtemberg) and even perhaps on that of the North German Confederation. By this decision, which has received the approval of the Prussian General Beyer, War Minister to the Grand Duchy of Baden, the Chamber has reduced the length of service in the ranks to two years. It should be remarked also that, as in the previous year, the war estimate and the contingent of 4,700 men has been voted only for two years, so that the estimate and the number of the contingent will again be discussed in 1871.

This tendency to shorten the length of service in the ranks is sufficiently widespread in Germany to merit some remarks. Referring to the year 1867, the three States of Southern Germany fixed (on the 5th of February, at the Stuttgart Conference), on three years as the length of service with the colours. However, Wurtemberg, despite this decision, fixed two years when she published her law of military organization; and although Bavaria and Baden have not done as much, it is known from recent debates in the Chambers that these two States had practically reduced the length of service to two years, or two years and some months. Now the Grand Duchy of Baden has followed Wurtemberg, and fixed by law two years as the length of service. Will this example be followed by Bavaria? I am inclined to think that the day is not far distant when all Southern Germany, will fix on two years as the limit of service in the ranks.

If I call attention to this possible and probable fact, I do so because already in Berlin people are discussing it. Everyone who foresees or hopes for the annexation of the Southern States, under some form or other, to the North German Confederation, says that these States must be taken with their existing military laws, and consequently with the term of two years' service in the ranks. Now it is asked will not Prussia, and the Northern States, where legally the soldier spends three years with the colours, be compelled to reduce the period of service to two years also?

And I would add that the numerous partisans of such a reduction have received with pleasure the news that Baden has adopted this law, because they hope to induce the Prussian Government to follow the example given by the Southern States.

Whatever happens, this question of reducing the duration of

military service will occupy men's minds for some time. It has already, prior to 1866, formed the subject of a conflict between the Crown and the Chambers, and it will again give rise to an attack on the Prussian Government, which is determined not to yield this point, for it considers this period of three years as indispensable for the proper training of the army. It is believed that very keen discussions on this subject will arise in 1871, when the Reichstag will again fix the effective strength of the army in peace time, and also the quota to be paid by each State per annum per man. (*Vide* Article 60 and 62 of the Federal Constitution).

[We suppress the remainder of this Report in which various questions of secondary importance only are discussed.]

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### DISARMAMENT.

#### *Report of the 28th February, 1870.\**

The question of a European Disarmament has continually, for some years, occupied all minds. I propose to discuss it as far as Prussia is concerned, but being desirous of confining myself to my purely military functions, I will abstain from all political considerations. Although my long stay in Prussia has placed me in a position to follow German affairs, I will not discuss if in the actual state of Europe a disarmament would be desirable, or opportune, neither will I seek to explain the reasons why the North German Confederation, such as the Treaty of Prague made it, is not born to live, or why the general opinion in Germany now is, that great events must shortly and infallibly happen; events which will imperiously compel France, more than ever to be watchful, *and remain armed to the teeth*. I will merely confine myself to examining, what the disarmament of Prussia really means, I will, I think, have no trouble to show, that Prussia cannot disarm, unless she consents to alter from top to bottom her essential institutions, which is tantamount to saying she cannot disarm, however much she may desire it, and any Government that should propose such a thing to the Prussian Government would merely give evidence of the most culpable ignorance, of the military organization, and institutions of Prussia.

I will first show that Prussia, having adopted the principle of universal compulsory service for all her citizens, cannot

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\* The "Journal des Débats" was the first that published this Report, and introduced it with the following words: "We publish the 37th Report written from Berlin by our late Military Attaché. It will be doubtless remembered that the beginning of 1870 the French Government, had an intention of sending to Berlin, through the English Government, proposals for disarmament. A perusal of this interesting document shows that our Military Attaché was consulted, on the chances of success such a proposal had."

disarm unless she abolish or evade that principle. Then next, I will explain the grave reasons why Prussia cannot think of abolishing or evading the principle of compulsory service. The logical sequence of which is that Prussia cannot disarm.

### I. Prussia can only Disarm by Violating the Principle of Compulsory Service.

No one who knows the military organization of Prussia can have any doubt on this subject. I have already touched slightly on it in my report of the 23rd April, 1868, when for the first time reports of a European disarmament were heard, but now that these rumours again spring up and that proposals for disarmament have been presented both to the Prussian and Saxon Chambers, I take this subject up more fully.

I said in the report already referred to, "It is requisite to observe first, that people have hardly taken the trouble to give the word 'Disarmament' a proper definition, and that in any case it cannot mean the same for all powers, since the military organization of no two is identical. If we seek an exact definition of the word 'Disarmament' we only find this, a reduction of the number of men that a State trains and reserves for war. Disarmament will be partial, if it reduces this number in certain proportions; it will be total if it trains no soldiers at all, or limits itself to keeping up a police for home service. In this sense it is easy to conceive a Disarmament of France, Italy, England, or Russia. These Powers need only reduce the number of their annual contingents, reducing thus the number of men trained for war, and consequently they would, to a certain extent disarm. But nothing of this sort can be done in Prussia, where the number of the annual contingent, in place of depending on the vote of the Chambers or the will of the Sovereign, is, on the contrary, fixed once for all by a fundamental and invariable law." The 1st paragraph of the Law of Military Service runs thus:—

"Every citizen of North Germany owes military service to the State, and cannot employ a substitute to perform this duty." In consequence of this law each year, all the citizens who are thought fit for military service are incorporated in the Army. The obligation to serve begins on the 1st January of the year when the 20th year is completed, and lasts for 12 years, counting from the 1st October of the same year, seven of which are spent in the Regular Army, or Reserve and five in the Landwehr, the seven years of service in the regular army, being three in the ranks and four in the reserve.

Thanks to the basis of this organization, North Germany has 12 contingents forming a total of more than 900,000 men.

Regular Army .	$\left\{ \begin{array}{l} 3 \\ 4 \end{array} \right.$	Contingents with the Colours ..	315,000	
		"	in Reserve .. ..	310,000
Landwehr ..	5	" .. ..	..	625,000
				330,000
		Total .. ..	..	<u>955,000</u>

Looking at this fact, and granting that, the principle of compulsory service remains intact, how is it possible that the North German Confederation can disarm. Is it not evident that whatever she does, short of reducing the number of years service, she will always have a force composed of 12 successive annual contingents. But reducing the number of years service would in no sense be a disarmament, for suppose it to be fixed at ten years, or that the men should serve three in place of five years in the Landwehr, it is certain that in case of war the Landwehr contingents so suppressed, could be recalled, for the law directs in such a case that all men up to 42 years of age must serve. In addition to which such a reduction would produce no great saving in the estimates, for the Landwehr costs next to nothing. There is, however, a method by which Prussia, preserving the principle of compulsory service, could maintain a smaller number of men with the colours, and at the same time relieve her finances; this would be to reduce from three to two years the period of service with the colours, augmenting as a compensation the time in the reserve to five instead of four years. But would this alteration be a disarmament in the proper sense of that word? Certainly not, for the North German Confederation would still dispose of not less than 12 contingents or 950,000 men. The only consequence of the change would be to weaken the military training of these 955,000 men since they would be trained with the colours to the profession of arms for only two, in place of three years.

The singular remark may be made, Prussia is the only nation in the world which can, without disarming in the true sense of the word, reduce the strength of the army with the colours and diminish the war estimates, but this, on the condition of giving a less complete training to her young soldiers. I should add, however, that the Prussian Government has obstinately refused for ten years this concession, to a certain portion of the Chambers. It is true that practically this period lasts for Infantry soldiers only about two and a-half years; and, if they acquired during this time a degree of instruction considered sufficient, it is due to the zeal and efforts of the Officers and Non-Commissioned Officers. All the competent military authorities consider the legal period of three years cannot be diminished, more especially as regards the Artillery, and Cavalry, and the Government on its side appears resolved to make no concessions, notwithstanding the example recently given by the Grand Duchy of Baden and Kingdom of Wurtemberg, where the duration of service with the Regular Army has been shortened to two years. (*Vide* my report of the 14th February, 1870.)

It must be seen from what has been just stated that Prussia cannot disarm, if she wishes to preserve intact the principle of compulsory service, and that she can disarm, only by violating this principle. Supposing she consents to do so, she would then merely place herself in the same position as other

powers; and it would then be sufficient that she should place annually beneath the colours, not the whole of the young men of twenty years of age, but such a number only as would produce a disarmament in a greater or less degree. But I will presently show that Prussia could not act thus, or, in other words, that she never can consent to abolish or evade the principle of compulsory service.

## II. Prussia can neither Evade nor Abolish the Principle of Compulsory Universal Service.

Would it not be madness to think that any nation would consent, of its own accord, to abandon so fruitful a principle, which, taken as the basis of one of its fundamental institutions, has contributed more than any other, to the development of its power and greatness? Now it cannot too often be repeated that it is compulsory service joined to compulsory education, which, for sixty years (since 1815) perseveringly adhered to, have led Prussia, by slow and imperceptible degrees, to that moral and intellectual development, which make her the most enlightened and disciplined nation in Europe, and placed her all at once in the first rank among Powers. And let it be said, as a digression, that Prussia having just adopted universal suffrage, no one can foretell where the destinies of this educated, energetic, and ambitious people will stop; a nation having—

Universal Compulsory Military Service;  
 Universal Compulsory Education;  
 Universal Suffrage;—

Three immovable columns on which to support the whole edifice of its institutions.

But is it true that the principle of compulsory service is an element of power, and that its application has contributed so much to Prussian greatness? A complete essay might be written on this subject. If this principle of compulsory service is looked at only as the basis of a military organization, it is open to argument, and it may be thought that a military organization, not based on this principle (that of France, for example) affords the means of forming an army as formidable, more formidable, perhaps, than the Prussian Army; but that is not the train of thought I wish to follow. I desire rather to look at the principle of compulsory service, with reference to the influence that it exercises on the character of the nation, its education, its customs; and from these points of view, the principle does not appear to me to be questionable.

The remarks which follow form the difficult portion of the task which I desire to fulfil in this report, for I must point out facts that, almost unknown to foreigners, are completely ignored in France, the very nature of which it is difficult to understand, so much does French national genius differ from that of the Germans. It is requisite, to thoroughly understand these things, to have lived in Germany, to speak

the language, to study and compare, to live, in some degree the life of the nation, and to have to a certain degree an intuitive comprehension of German genius.

From the stand-point which I take, I am anxious to show how the creators of Prussian military organization have used the principle of compulsory service to make of the army, not only a military institution, but also a *social institution*—a double office which no other army in Europe fills.

In other countries, the army, formed of contingents, composed only of a portion of the healthy young men, the army, I say, is an institution apart from the nation; it is a war machine destined to repel all aggression, to fight for the greatness and interests of the country. It is, in other words, if you will, the sword of the nation. It can have, from its composition, no other use, no other character.

In Prussia it is different. The army, with its organization based on the principle of compulsory service, whilst it is, as in other countries, a war machine, offers this distinctive characteristic—it is a school of morality, obedience to the sovereign, to authority, to the laws, and of general discipline in all the things of life, a school for all healthy citizens of what social condition soever they may be. It may be urged that other European armies, more or less, offer all the same characteristics, as a natural sequence of military institutions. To this I reply, that this character has been forcibly given to the Prussian Army by the authors of its organization, chief amongst whom was General Scharnhorst.

This illustrious man, and his successor, General Boyen, as well as the other creators of this military organization, have sought in establishing the principle of compulsory service, that the army should be not merely a military institution, but rather a school where all the subjects of the monarchy, from the most independent, either by birth or fortune, to the poorest and most dependent, might learn, during three years of actual contact one with another, sound ideas of obedience to the sovereign and to authority, as well as ideas of duty, honour, and morality, which might serve them for the rest of their lives.

These great ideas, which were the object of profound discussion in various Committees charged with the preparation of the law of army organization, are expressed in all the works treating of the military institutions, and I hear them continually spoken of, in my conversations with intelligent officers.

The creators of this organization, with their profound knowledge of German character, saw at a glance what national benefits, both moral and physical, must follow from the compulsory mingling together of all the young healthy men at an age when body and mind are still susceptible of being developed by exercise and healthy labour, during a period of three years, a period too short to dread the effects of the idle habits which often follow from a military life spent in peace time.

They saw that with a grave people of docile habits, disposed to obedience and to feelings of duty, three years might be employed most beneficially to improve, develop, and confirm these qualities for the rest of their lives.

And it must be acknowledged that these ideas have not been allowed to remain a dead letter; on the contrary, they have penetrated deeply into the nation, and into the army, where they have exercised and are exercising daily the most happy influence. Nothing is neglected to make the army not merely a military school, but rather a school for morals, general education, and improvement, or, so to speak, *a college where the elementary education, the young men have obtained at the schools in the country prior to joining the army is completed.*

In no other army do they pay so much attention to bodily exercises—swimming, riding, fencing, gymnastics; in no other army are lectures, courses of study of all kinds, so numerous so well attended. Nowhere, in short, are ideas of honour and dignity amongst the soldiers, and non-commissioned officers more kept up, and developed than they are in this country by a serious and well-taught body of officers, composed of the *élite* of the nation.

It should not be forgotten that it is the healthy part of the nation, which has for successive generations been submitted for three years to these exercises, developing both body and mind. If this be remembered, an idea of the advantages the country obtains from this system may be obtained. They are so undoubted and so generally recognised that at the present day in Prussia they are spoken of as axioms. All the books on the subject recount, explain or comment on them. All praise an institution, which, based on the principle of universal military services give the following results.

The development of health and physical strength amongst *all the healthy men of the country*, a development especially profitable to the lower classes.

The impossibility for young men to marry before 24 years of age.

A common life for three years, led by all citizens of the various classes in the nation.

The reciprocal and healthy influence, that flows from the intercourse of these young men at a period antecedent to their entry into practical life.

The exercise of all the virtues of a good citizen.

Frugality, obedience to the laws, discipline, respect for authority, feelings of duty.

I would add that in Prussia, such sayings as the following are household words:—

“The army is a school which finishes and confirms for use in practical life the instruction obtained in other schools.”

“The army has done more to raise the status of the lower classes than all the laws.”

“The Prussian military institutions put at the disposal

“of the King for war all the intellectual force of the kingdom.”

The following phrases, which have a very profound meaning, are added :—

“The Prussian Army is the people in arms.”

“Prussia is not a country which has an army ; it is an army which has a country.”

“If you adopt in France the principle of compulsory service, you will once again dictate to all Europe.” This was said to me by a Prussian General, a most intelligent man.

It must be acknowledged, the more the history and institutions of Prussia are studied, the more it will be seen that its military organization, precisely because it is based on compulsory service, has powerfully contributed to develop the faculties, the education, and the energy of the nation.

There is nothing even to the institution of “Volunteers for a Year,” which compels a large number of young men of the wealthy classes to serious preparatory study, that does not tend to gradually raise the level of general instruction. It is known that young men who are anxious to be allowed to serve only one year, are obliged to pass certain special examinations. Now the number of volunteers for a year being limited, and the number of young men seeking to be such, being considerable this benefit is only given to the best, whence results for all an emulation most valuable to the progress of their studies. This fact is clearly proved by the following.

In 1867, the standard of education in the new provinces annexed by Prussia was by no means so high as in the old provinces. Now in 1869 all the examining committees for “Volunteers for a Year,” which have examined in the new provinces, report that the standard of education has been sensibly raised during the last three years.

How can one not feel deeply when such things are compared with what passes in France ? What lives do the large number of young men of 20 years of age, who for one reason or another are not called on to serve, lead ? What do they do ?

How many amongst the number are there who are ill-disposed to work, ignorant, whose existence is useless to the country ? What power, what lost power, they would call this in Prussia.

If I have succeeded in showing by what I have just said that the application of the principle of compulsory service is for Prussia an element of power and greatness—by its effect on the various classes of succeeding generations, improving their physical strength, shaping them to discipline, duty, and respect to the laws, imparting feelings of honour and morality amongst them, compelling all the young men of the wealthy classes to labour and study, and producing a constant and healthy reaction of military institutions on civil; and *vice versa*.—it may be understood how this Power, thanks to this principle and that of compulsory education, has raised itself to the position it now fills.

And Prussians are not ignorant of all they owe to the application of these principles, it may therefore be safely affirmed that in no case, will they consent to abolish or evade either of the two, nor even that one, which serves as the basis of their military organization, that is to say, the principle of compulsory service.

### III. Conclusion.

If, therefore, on the one hand, Prussia can only disarm by giving up the principle of compulsory service; and, if on the other hand, everything forbids her giving it up, one is forced to conclude that Prussia cannot disarm.

Such a conclusion must necessarily call for the following reflections. It may be said, if Prussia cannot disarm, is she, and consequently all other Powers, compelled to maintain for ever numerous armies, and devote to their maintenance crushing estimates.

That is not admissible. The countries of Europe desire peace, and cannot allow themselves to be ruined, by continual outlay on the chances of war, &c.

My duty is not to reply to such questions. I simply wish to point out that Prussia, thanks to her institutions, finds herself placed in a situation where under certain contingencies, everything as I have just pointed out is to her advantage.

Thus, for example, the principle of compulsory service gives her the means of reducing the amount of her war estimates without disarming, that is to say, without ceasing to teach the trade of arms to all men fit for service. This means consists in diminishing for the Infantry only the length of time spent with the colours, not the legal period of three years, but the actual period, and which is now only two years and some months, and to send home such men as may be deemed sufficiently taught.

However it may be, the Prussians do not admit even that Prussia could be asked to disarm, for every one knows that the most vital of all her institutions, compulsory military service, renders disarmament impossible. "As well ask us to speak another language than our own," said a Prussian to me one day.

I attach to my report an article of the "North German Gazette," the organ of M. Bismarck, where the view taken of the question of disarmament may be seen. I have underscored the phrase.

"For the North German Confederation, a disarmament is a renunciation of compulsory military service, and that is an impossibility."

This impossibility of disarming in which Prussia finds herself, gives rise to the gravest reflections.

One is almost afraid to think that we have at our gates a rival power, which, the moment it finds us the least inconvenient, whenever that may be, can dispose of more than 900,000 soldiers

all trained to the profession of arms. I insist on, and I repeat the words, *all trained to the profession of arms*. This is no question of National Guard "Sédentaire" or National Guard "Mobile," but of soldiers who have served during three years, and after having served, are kept up to the mark by annual training until they are 32 years of age.

How then, deduction being made for our inferiority, how then shall we, with the few hundreds of thousands of men forming our army, struggle with an army so thoroughly knit together, double, nay triple, ours?

Thus each time the question of a European disarmament is brought forward, one has to consider if France and the other Great Powers will not see themselves compelled to adopt sooner or later, the principles of Prussian military organization, which alone will permit them to raise forces as great as those the North German Confederation disposes of, without taking into consideration (all honour to Prussia), that these principles are based on justice, morality, and true equality.

#### IV. Objections.

Persons are not wanting in France and elsewhere who, for want of knowledge of Prussian institutions, think that a disarmament of this Power is a possible thing. They acknowledge it is true that the principle of compulsory service offers an obstacle to disarmament, but they do not think it insuperable. "Prussia," say they, "has never applied, and does not now apply this principle in all its rigour. She does not incorporate in her army the total number of healthy men of 20 years of age, the proof of which is that Article 60 of the Constitution of the North German Confederation, fixes the actual number of the army on a peace footing until 31st December, 1871, at 1-100 of the population in 1867; this supposes an annual contingent of 100,000 men, while in North Germany there are each year 160,000 young men fit for duty. If, then, Prussia does not apply the principle in all its rigour, it is possible for her to evade it still more by reducing the number of the contingent to 80,000 or even 70,000."

This objection is based on an imperfect knowledge of the real state of affairs. Prussia by no means evades the application of the principle of compulsory service. Article 60 of the Federal Constitution fixes the number of the Army with the colours in peace at 1-100 of the population in 1867, but it should be known that this proportion of 1 per cent. has been so arranged that the principle of universal service shall be fully applied.

The authors of the Constitution were not ignorant of the statistical fact that in Prussia before 1866, the epoch at which the Army organized on the principle of compulsory service was 200,000 men out of a population of 20,000,000 or 1 per cent. Hence they have simply adopted this proportion in fixing the number of the Federal Army. That the number of young men of 20 years of age fit for service varies from one year to

another, even to a sensible extent, and that consequently all the healthy young men, without one single exception, are not enrolled each year, does not weaken the application of the principle of compulsory service. Is not it evident that there can be no hard and fast line between the sound and unsound young men which will allow the former to be selected from the latter? A certain elasticity, a certain amount of play is requisite. Thus in Prussia the councils of revision sent back, sometimes for three years in succession, a large number of young men before finally deciding on their fate.

In addition, has not an army certain elements which must remain fixed, cadres for example, and are there not in a great country various exigencies which renders it requisite to alter the number of men in certain categories, as for instance those who are excused military service? It is precisely these exigencies, some military, some social, which have caused the creation of the reserve of substitutes (*Ersatz Reserve*.) It is composed of all the young men exempted from active service in ordinary times, those for example the lot of whom, on account of physical defects the Counsel of Revision has not settled neither the first, the second, nor the third year, those who have undergone punishment, or are entangled in the meshes of the law, however, these are only exempted in ordinary times and may be called out in case of mobilization.

Those who refuse to admit that Prussia cannot disarm, strengthen their argument by a reference to the proposals for disarmament recently presented. One to the Saxon Chamber, the other in Prussia to the Chamber of Deputies by M. Virchow. How they ask could such proposals have been made by Prussian Deputies if the North German military institutions will not admit of a disarmament?

In reply to this objection I would say, that in Prussia as in all other countries, there are persons who are opposed to standing armies, and in Germany standing armies are attacked by a horde of dreamers and theorists, who do not understand the reason of their existence, and deplore their state of unproductiveness. Others, while they admit the necessity of standing armies and acknowledge the advantages that they possess, believe that Government overshoots the mark, and that armies fulfilling all the requisites, can be made at a smaller cost. It is these last who have brought forward propositions for disarmament in the German Chambers, with the avowed intention of inducing the Government to reduce its military expenses, but (it should be remarked) without expressing an opinion that this reduction should be made by a disarmament properly so called. The word *Abrüstung* used by these people is not synonymous with *Entwaffnung*. The idea of the author of this proposition was simply this: our military expenses are too great, we ask the Government to reduce them, no matter how. Mr. Virchow and his followers were well aware that their proposal had no prospect of being received, since the military expenses have been

fixed until the 31st December, 1871, by Articles 60 and 62 of the Constitution, they only hoped to make a first attack, which they hoped to renew, when the Reichstag would have to discuss new Articles intended to replace those just referred to.

They hoped to gain their object in the important discussion which must take place in 1871, and succeed in diminishing the proportion of 1 per cent., on the one hand, and 33l. 15s. on the other, which each State must pay per year per man.

These hopes of disarmament, entertained by a certain party in Germany, hopes which cannot be realized so far as Prussia is concerned, are in France shared by many people. One has only to read recent articles in the *Moniteur* and *Constitutionnel*. After speaking of the intention of the French Government to reduce the number of the contingent, these newspapers use the following language:—

“ But France is justified in demanding that other countries should do as much. Prussia, why does not she give a proof of her pacific intentions. Why will she not reduce her contingent, beginning from 1872, as she may do, when she revises Articles 60 and 62 of the Constitution, &c.”

If our newspaper writers knew Prussia and her institutions a little better, they would not write such things.

They would know that this Power is not free to increase or reduce her annual contingent, and that she, on account of her institutions, can give no guarantees of her peaceful intentions.

She can only do so in words, which will never be deemed sufficient. She is tied—chained, if you like it—by the principles of compulsory service. Things being so, it is requisite that foreigners should be convinced of it, and act accordingly.

To sum up, I have sought to show—

1. That Prussia can only disarm by giving up compulsory service.

2. That in no case can she give up the principle which, with compulsory education, constitute the essential elements of her power; whence I have concluded that Prussia cannot disarm.

I have thus tried to refute certain objections, made against the application of the principle of compulsory service. If I have succeeded in making myself understood, it will be seen in what a false position a government will place itself which is sufficiently ill-advised to send to Berlin a proposal for disarmament. By such a step it would voluntarily place itself on the horns of a dilemma; it would meet with a refusal, or be cheated.

Of two things, one would happen, either the Prussian Government would be sincere, or it would not be sincere. If, in the hope of profiting by the good faith and ignorance of a foreign government, it did not wish to be sincere, it might promise to reduce the effective strength with the colours by sending home a certain number of men in anticipation. It