

Notes Of The War

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## NOTES OF THE WAR.

**DR. GEORGE KORN**, private teacher in the University of Breslau, was killed at Metz on August 18th.

SOME of the wounded at Reichshoffen have arrived at the military hospital of Versailles, and more are expected. The ordinary patients of the hospital have been sent to Alençon and other places.

LISTS of the wounded on both sides have hitherto been exchanged between the German and French Aid Committees by way of Geneva. An arrangement, however, has been decided on, by which the transmission will be direct.

*The Journal des Connaissances Médicales Pratiques* says that in future, whenever time allows, the wounded will be transported on straw in open luggage-wagons, instead of, as hitherto, being shut up in closed compartments.

THE medical department of the Prussian Ministry, says the *Wiener Medizin. Wochenschrift*, has sent a large supply of disinfectants, as well as of medicines, to the districts around Metz. It is intended, when Metz has surrendered, to send away to distant healthy places the sick and wounded who are shut up there, after disinfection has been applied. The Prussian medical department has also sent to the army a supply of medicines for diarrhoea, which usually prevails at this season of the year. The state of the health of the German troops in France continues to be very favourable.

### THE JOHANNITER CORPS.

A SPECIAL correspondent of the *Daily Telegraph* passes some severe strictures on the Johanniter Corps, which tally in every respect with reports which have come to us from other quarters, and they are the opinions of the German people themselves. "This corps is composed of gentlemen, many of whom have served in the army, but the greater number of them are civilians who have undergone their three years' regulation service. In order to qualify a gentleman to become a Johanniter, he must be able to show fourteen quarters upon his coat of arms, and an unblemished descent of many years; he is then entitled to wear a white enamelled Maltese cross, suspended by a green ribbon to his neck, and a uniform of the same description as the Prussian infantry, except that the buttons have a Maltese cross upon them, and the white badge with the red cross is worn upon the left arm. Under their care, for the purpose of distribution, are placed all the medical comforts—wine, provisions, and bedding—that are sent by individuals or communities for the use of the sick and wounded; and without a special order from them

none of these things can be taken even by medical men. Now, I am not going to say that all are alike; but the conduct of these gentlemen, for the most part, is beneath contempt. They live upon the fat of the land; they never know what it is to want a meal, and they take care it is a good one. The medical staff are continually at loggerheads with them, because they cannot get what has been sent out for the special benefit of the sick and wounded soldiers. They are always in the best quarters, and never where they are wanted." There are, however, some noble exceptions.

### THE GENEVA CONVENTION.

COMPLAINTS of infraction of the Geneva Convention are, says the *Wiener Medizin. Wochenschrift*, made by both the belligerent armies. The Prussians and the French accuse each other of firing on the dressing-stations and field-hospitals, and of treating the surgeons and their helpers as combatants. Such complaints will be constantly heard; for, notwithstanding the best intentions of rulers and commanders in the field, excesses of this kind are not to be restrained in the heat of battle. The paragraphs of the Geneva Convention may be unknown to many officers and most subalterns of both armies—nay, they may be ignorant of the Convention itself; to say nothing of the natural savageness of a heated and raging soldiery. In spite of all, the blessings of the Convention have come to light in many points in this terrible contest; and, having been so far recognised, it will certainly attain its proper value.

### LOAFERS UNDER THE RED CROSS.

A CORRESPONDENT at Berlin writes that communications received from the theatre of war complain of the great crowd following the army under the sign of the Geneva cross: only a minority of them are able and willing really to help, the rest coming for curiosity, and using the shelter and food intended for the sufferers. The soldiers have nicknamed such persons "battle-loafers." The Royal German Commissary for voluntary aid has, up to this day, distributed cards for more than 12,000 persons: it is evident that among this number there may be many unfit for the purpose, because, in the short space of time, a careful selection and examination of the competitors was not possible. The voluntary aid might perhaps be still more closely connected with and subordinated to the military medical service. Similar complaints couched in the warmest terms are made by other correspondents at the seat of war. They are in many cases not without truth; and one of our special correspondents says that several persons (happily not English) wearing the Geneva badge have been found robbing the dead and wounded.

### THE WAR HOSPITALS.

THE following notes have been sent us by Dr. J. Ford Anderson, who has recently returned from a tour through some of the hospitals in the rear of the German armies.

At Aix-la-Chapelle I first saw the wounded. There, the existing hospitals being insufficient to accommodate the wounded, a large wooden hospital, on the pavilion system, was in course of erection. One wing was completed, and its sixty beds were occupied with patients suffering from wounds of every part of the body. There was a case of perforation of the wind-pipe and pharynx. The patient declined the use of the stomach-pump; and he was supported by nourishing enemata. In another case, a single ball had perforated both thighs and the external genitals. In a third case, the ball entering the external ear had passed out through the antrum, crushing in its course forward the temporal and malar bones. Most of the wounds, however, were in the extremities, and in many of these cases there was fracture of the bone. The patients were all Prussians, and their wounds were caused by the chassepot.

Through the kindness of Dr. Brandis I was enabled to see and assist in the treatment of these cases during my short stay. The treatment of wounds was by irrigation with a weak solution of Condy's fluid, followed by a dressing of charpie dipped in carbolised oil and covered with impermeable paper. This was done twice daily. In cases of fracture, the limb was enveloped in plaster of Paris. The mode of application was as follows. The limb was first bandaged with pressed cotton-wool, four laths were then laid lengthways, along the limb, and the whole was bound down with a bandage which was smeared thickly with plaster of Paris. The apertures of entrance and exit were left exposed for the purpose of irrigation and for removing portions of bone which were loose. The surgery was decidedly conservative. Several cases of fracture in joints were intended for resection. At that time (three weeks ago) Dr. Brandis had amputated in one case only.

As the hospital at Aix-la-Chapelle was not likely to be ready for a fortnight, and there was a sufficient number of assistants to do the work there, I resolved to go nearer the seat of war. On my way through Coblenz and Saarbrück I visited the larger lazarettos. Everywhere I

found the same conservatism in surgery. Resections of the elbow, shoulder, and knee will be numerous for some weeks to come. On the day I visited Saarbrück, three of these resections were performed in the tent of the Amsterdam Aid Society. I did not find the irrigation treatment of wounds so usual as I went on. Instead of it, baths of sheet-zinc filled with water were used; and in these the wounded limbs were immersed. This treatment is less troublesome, but appears to make the granulations soft and flabby. From Saarbrück I went into France, travelling by that slowest of conveyances, a *militair-zug*. At last, however, I reached Remilly and Courcelles, in time to aid in the dressing and preparation for transport of four or five hundred of the soldiers wounded in the battle at Metz, on August 31st. The wounded were brought down to these stations and laid on straw in sheds. All of them had been attended to in some way on the field, but here their cases were revised. Bad cases are treated in the local hospitals until they can bear being transported to Germany. I was much struck with the desire of the wounded soldiers to be considered by the doctor able to travel homewards. The German love for the Fatherland is intense; and I saw many a strong man stealthily dash the tears from his eyes when his sentence, "Hier bleiben", was pronounced. And when it is possible, the surgeon, who has to decide whether the wounded man shall go or stay, respects his feelings. Apart from sentiment, the disappointment of remaining and consequent depression must often have a retarding effect on the recovery.

Much of the dressing of wounds is done by non-professional volunteer helpers of the different Aid Societies—German and foreign. I have heard of sixty of these societies, and probably there are more. Their object is to assist in every way the sick and wounded. They carry them off the field of battle. They give them stores with which they are entrusted. They dress their lighter wounds, and call a surgeon for the severer wounds, and so on. Many of them are educated men, who leave their professions to do this work. The usefulness of these assistants individually cannot be over-estimated. But as each society acts independently, it often happens that helpers are in excess in one place, while another place is short-handed. Many of the societies live in camp at their own expense, and provide comforts for the wounded, and ask for nothing but information as to where their services are required, but this they can with difficulty obtain. There is a general disposition to blame, as obstructive to their usefulness, the Knights of St. John (Johanniter). This order is composed of men of good social position and ample means, and theoretically they are supposed to look after the wounded; but the humbler workers complain that these gentlemen confine themselves to the light duties of verbal comfort, and the distribution of small delicacies, and rather discourage than assist others in doing the hard work which I have indicated. However it arises, the fact remains that much labour and philanthropy is wasted, and much suffering is unrelieved from want of a proper organising head. Two examples occur to me. A well educated member of the Hamburg Krankenpfleger told me that, after the battle of the 31st August, at Metz, the detachments of his Society went on the field to remove the wounded. Having worked till nightfall, when complete exhaustion compelled them to desist from their labour, they rested for a few hours, leaving many wounded on the field who were still alive. At dawn it was found that all of these had died during the night; and who can say they would not have recovered with proper attention? And yet, hundreds of able volunteers—longing for work—might have been collected in a few hours from towns and villages where their services were no longer urgently required. Again, from want of organisation, it often happens that the wounded despatched homewards, travel for four and five days without having their wounds dressed. Yet, imperfect as is the action of isolated societies, they have better means of knowing where help is needed than individuals; therefore I would recommend any surgeon going abroad to attach himself to some society, and to go where it sends him; and none is better than our National Aid Society.

Of course my personal observation does not amount to much; but I may say that I did not see or hear of a bayonet-wound or a sabre-cut.

Another correspondent, writing from St. Marie aux Chênes on August 22nd, provides the following notes.

Although I left London on the 15th, I am still far from my destination—head-quarters. Travelling is indeed slow and wearisome. The endless trains of wounded one meets with testify to the cost which Prussia has paid for her unexpected successes. I passed through Saarbrücken and Herry, Falquemont, and Remilly, and everywhere the houses and hospitals were crowded to overflowing. These, of course, represented the least severe cases—mostly flesh-wounds; though among them were many who were in a poor condition to undertake a long, tiresome journey. It was, however, absolutely necessary to transport

them somewhere, and the men were equally anxious to go home to their friends.

It was in Remilly that I first saw anything serious. I chanced to have quarters allotted to me in the Chateau Rolland, which had been fitted up as a lazarette, and was really very comfortable, but very short of surgical appliances. There was a poor fellow who had been shot in the head. The ball had struck him about the juncture of the parietal and occipital bones behind, and had made a complete furrow, tearing away scalp, and bone, and brain, altogether. He was of course in *extremis*. The Chassepot bullets make a very clean-cut wound. The calibre of the bullet is very small; and, being conical, I suppose it cuts more freely and with less laceration of the surrounding soft parts, especially near its exit. The exit, in many cases, is as small as the entrance hole, and it is often difficult to distinguish them. The balls sometimes make strange circuits. One patient was struck in the middle of the calf of the leg, and the bullet passed upwards and forwards, splintered the femur just above the knee-joint, and came out on the upper and outer surface of the thigh.

I only stayed one night at Remilly. I had to hurry on to St. Marie-aux-Chênes, where they had been fighting very hard for two or three days. We passed through several villages on our way—Gorse, St. Privat, and others. It was three days after the fighting; and it was said, officially, that there were upwards of 70,000 dead and wounded. I could well imagine that to be true, for they were lying even on the roadsides, every house, and stable, and church, and barn, being crammed to overflowing; and from the fields around for two or three miles there arose such a stench as must be smelt in order to be appreciated. In St. Marie, whence I write, there is a very large number of wounded; and it is more especially of these that I can speak, as a section was kindly handed over to me. In a barn, there were twenty-six men; of these, two had bullets through the lungs, one in front, one behind; three had compound fracture of the femur; two had bullets in the knee, either in or near the joint; one had a severe head-wound; and the remainder were cases of simple shot-wounds. This is a large proportion of serious cases; and I believe I speak truly when I say that in other houses and places the proportion is equally great.

There were no primary amputations under treatment. The medical staff and appliances were so utterly inadequate to the demand, that for the first five or six days nothing was done but arrange the men and get them under cover. On the 22nd (to-day), a few operations were performed—amputations—the circular method being chosen in each case. The surgeons seem unwilling to operate much, thinking it too late. I expect that in either case the mortality will be exceedingly great, as the greater number of the cases now remaining are of a very serious nature. My stay here will be much too short to give any detailed account either of the results or of the operations which may ultimately be performed. To make matters worse, there is a great want of water. The great demand made on the wells and the dry weather together somewhat account for this. Cold applications seemed to be the most agreeable; but water could not be had, not even enough for drinking purposes. There is a want of cleanliness. The charpie and other dressing from the wounds, now beginning to suppurate vigorously, are simply hidden beneath the straw, there to ferment and give rise to odours far from agreeable, and such as will not in any way conduce to the well-being of the patients who cannot get out of the way. I believe that this was the cause of a rather severe kind of diarrhoea, which troubled the poor fellows very much—the more so as they were lying on straw, and bed-pans were not to be had. Compound fractures of the leg are put up in plaster of Paris bandages, with a window opposite the wound. I am very curious to see the result of this treatment.

The same correspondent, writing from Pont-à-Mousson on August 26th, says:

I have just returned from a visit to one of the field-hospitals, and, thanks to the kindness of Staff-Surgeon Dr. D. E. Müller, I saw a good deal in a short time. I happened to reach the place just in time to see an excision of the right ankle-joint. The man had been shot through the joint obliquely, from without inwards. The extremity of the fibula was completely broken through, and a portion of the lower end of the tibia was also gone. It was eight days after the injury had been received. An incision had been made for the escape of some pus which had collected; and it was through this opening that the real condition of the joint was ascertained. A counter-opening was made over the inner ankle, through which a chain-saw was introduced. The lower ends of the tibia and fibula were removed, with the upper surface of the astragalus. The foot was then put up in plaster of Paris.

The next case was ligature of the femoral artery. The man had been shot through the calf of the leg, and the posterior tibial artery was injured. Bleeding had come on repeatedly in spite of styptics and ligatures, and



so the artery was tied. The man was simply put back to bed without further application of either wool or warmth of any kind to the limb.

I next saw exarticulation of the femur for a compound comminuted fracture of the thigh, very high up. The bullet could not be found. The patient had been sent from some one of the villages in the neighbourhood of the battle-field: he had been put up in a plaster of Paris bandage extending well round the hip, and had certainly borne the journey fairly well.

These were the only operations which I saw performed. We then went round the wards, in which were some interesting cases. There was a man on whom tracheotomy had been performed five days previously. He had been wounded in the throat: the ball had not passed through, but there was very great œdema; and respiration was so difficult that tracheotomy was determined on. He was doing very well, and it was proposed to take out the tube on the following day. I also saw three cases of excision of the elbow-joint. They were being dressed much as we do them in England. Instead of resting on cushions, they were suspended and swung about easily, according as the patient himself moved. We then came to a man who had been shot in the upper part of the chest. The clavicle had been considerably damaged. It was feared the splinters might injure or cut the vein or artery, and so nearly the whole clavicle had been extirpated. The patient was doing well. Dr. Müller showed me also a case of excision of the shoulder-joint. It had been done in consequence of a complicated injury involving the whole joint. He had performed several amputations both of the thigh and leg; but it was too soon to say much about them.

I endeavoured to find out whether there was much or any difference in the wound produced by the Chassepot and the Prussian bullet, but could learn nothing. The Prussian bullets, I think, are somewhat larger, and are egg-shaped, and are perhaps just a little heavier.

The hospital had been extemporised out of a large French barrack. The wards were large and airy, and the patients seemed to be very comfortable.

I cannot speak too highly of Dr. Müller's kindness and courtesy to me, a perfect stranger, who had to introduce himself as best he could. I leave here to-morrow for Commercy.

#### TENT-HOSPITALS.

THE following notes on tent-hospitals are from a German physician of London, who is at present in the neighbourhood of the Rhine.

The experiments which have been made in the war of 1866, and since, to treat the wounded and sick in tents or in wooden houses, have led to the adoption of this plan on a larger scale in the present war. A tent-hospital, containing at present two hundred and forty beds, is in full working order at Cologne. The tents, beds, and bedding are the gift of the German Association in London in aid of the sick and wounded in the present war. Twenty of the tents are already open; and there is a supplement of fifteen, which will either be used in the same place or forwarded to some other locality where they are more urgently needed. The tents were furnished by Messrs. Paget, Piggot, and Edgington; and the bedding by Messrs. Heal and Co., in London. Each tent contains ten beds; but, the superficial area being only sixteen by thirty feet, it appeared to us that the beds were too near each other, and that eight would be quite a sufficient number for each tent. It is worthy of notice, however, that even in those tents that were quite full of patients with suppurating wounds, the air was perfectly sweet. This is, no doubt, in part also due to the excellent system of disinfection which is carried out, and of which we shall have to say a few words hereafter. At one end of the tent, a portion about four feet wide is separated from the rest by a curtain drawn across, and opening in the middle, behind which, on one side, a table with different hospital appliances, and on the other a Müller-Schür's closet (earth-closet, with a disinfectant powder instead of the earth), are placed. Gas and water are laid on. In every tent are suspended one or two of Professor Esmarch's irrigators—tin cans holding about two pints of water, which flows out through an India-rubber tube of sufficient length to be used for all the beds. For each patient there is a separate nozzle of hard rubber; and this is kept, during the time between the dressings, in a glass filled with Condy's fluid. These irrigators are simply used for syringing the wounds; and Condy's fluid is used for this purpose.

A most extensive use is made of carbolic acid, dissolved either in water or in oil, for dressing the wounds. All articles of dressing which are not worth washing are burnt; the others are kept for twelve hours in a disinfecting fluid containing chlorinated soda, before washing them. The tents are pitched in a beautiful garden, and a conservatory has been fitted up as a washhouse; whilst a washhouse and stable have been admirably transformed into a kitchen and larder. The administration of the whole hospital is in the hands of the indefatigable

Mr. Deichmann of London. The medical service is performed by several practitioners of Cologne, of whom Dr. Servais, one of the leading men at Cologne, is day and night on the premises, besides two assistants. The household department and the nursing are in the hands of several ladies belonging to the first families of the town. Upon the whole, nothing could make a better impression than the order and cleanliness of this hospital. The diet is very liberal. Every patient gets meat twice a day, plenty of beef-tea, eggs, and beer; in fact, the only limit seems to be his capacity for digesting. If the military world has been astonished at the complete change which Germany has undergone in military matters within the last few years, the medical world may not be the less surprised at the complete overthrow of the notions which not long ago were prevailing in Germany as to diet, dressing of wounds, and ventilation. Open windows are now the order of the day; or the patients are kept under tents, or they are carried in their beds in the open air whenever the weather allows it. Condy's fluid, carbolic acid, and chloride of lime, are used in all hospitals extensively.

Three tents at Cologne are of a somewhat different shape from the English ones, being somewhat wider. They are the regulation tents of the Prussian Army Medical Service, and were bought at Cologne. It will be gratifying for the English makers to learn that their tents stood the drenching rains prevailing lately better than those made at Cologne, although they also let a little rain pass through, especially over the ventilator at the top, the arrangement of which might be somewhat improved.

At Bonn there are altogether fifteen hospitals for the wounded; and several magnificent villas—among others, the house of Professor Busch—have been fitted up for the reception of patients. We saw many severe cases; about a dozen where the arm had been amputated; several amputations of the thigh; one case of resection of the humerus, and several of the elbow-joint. Most of the patients were doing remarkably well; all whom we saw were under the care of Dr. von Mosengeil. There were several curious cases of bullets having entered the pelvis, and where symptoms on the part of the bladder or rectum had been present, and in which there could hardly be a doubt of the peritoneum being wounded; and yet the patients were doing well, and no peritonitis had set in. The surgeons are under the impression that the wounds, upon the whole, heal more quickly in the French; but that the Germans bear pain better. There is a good deal of dysentery among the wounded coming from the front.

A tent-hospital similar to that at Cologne is about being established at Bingen. The tents (for two hundred and fifty to three hundred patients), with all the furniture and bedding, are also given by the German Association in London. Dr. Thudichum is at the head of the undertaking; and Mr. John Simon, who is spending his holiday at Bingen, is also taking a most active part in it, and his co-operation will prove most valuable. Eleven young English surgeons from different London hospitals are engaged to act as dressers and assistants. We learn that the National Society in London bears the expenses of the latter, and that this Society has also supplied instruments. A site has already been found on the Rochneberg; and we trust that, before another week has passed, white flags with the red cross will indicate the existence of this truly international hospital.

#### MEDICAL SYSTEM OF THE GERMAN ARMY DURING WAR.

THE following is from our Special Correspondent, dated Berlin, September 7, 1870.

In my last letter (see JOURNAL, Sept. 3rd, p. 254) I gave a sketch of the organisation of the military medical service; and I still have to complete it in several points. Part of the places are filled by the military surgeons, whose number in peace is sufficient for all demands; when the army is mobilised through the whole country the medical men, as well as all other men of certain ages, are bound to military service, but in general their number, together with that of the military surgeons, does not fully make up the full medical staff of the mobile army (amounting to more than 3,000). The deficiency is made good, as far as possible, by medical volunteers taken partly from among the elder students. Any vacancies that remain are in general among the troops; the field-hospitals, the sanitary detachments, and the hospital reserve of every army corps are made complete, these bodies being destined for the first hospital treatment of the wounded. On the average, the proportion of the *personnel* among them is this: one surgeon for thirty-three patients, one Lazarethgehilfe (hospital helper) for twenty-five, and one nurse for thirteen patients. In the whole army, there is about one surgeon for each two hundred and fifty men.

The *reserve hospitals* are established either in garrison hospitals or in other buildings approved of by the provincial general surgeon. Their

administration is under the military medical service. Their medical staff is furnished from the surgeons of the town; for one hundred patients there are an ordinary and two assistant surgeons. Every patient ought to have at least 1,200 cubic feet of air.

A change in the military medical service, first made in the war of 1866, then worked so well that it has been renewed in the present war—I mean the institution of consulting general surgeons. They are nominated in case of war, and are selected mostly from the professors of surgery; they have to work in the dressing stations and in the field-hospitals, and may, without having anything to do with the administration, devote themselves entirely to scientific work, and advise the surgeons and the chiefs of the hospitals. The present circumstances, as well as the experience of 1866, have proved the advantage of this institution, not only to the wounded soldiers, but also to the surgeons of the field-hospitals, which are made thus a most excellent school of surgery. The present consulting surgeons are—Von Langenbeck, Wilms, Bardeleben, Busch, Roser, Wegner, Wagner, Stromeyer, and Esmarch. As in all probability the present war will give occasion to epidemics, Professor Frerichs has been made general consulting physician, in order that there may be a scientific authority to watch, and if possible to avoid, the outbreak of contagious disease in the army. The materials of medicine, instruments, and bandages, in the sanitary detachments and the field-hospitals, are very complete. In addition, in case of need on the battle-field, every soldier has, according to a new regulation, material for the first dressing sewed in his left pocket (in order that it may be found easily); namely, a piece of old linen, a linen bandage four yards long, half an ounce of charpie, and a piece of oiled linen.

[Instead of the bandage, Professor Esmarch proposes for the future (I think not wrongly) a triangular piece of linen, as more fit for the various kinds of bandaging. He thinks that by a woodcut printed on the cloth and representing these bandages, the men might be enabled to bandage themselves in case of need.]

To supply the field-hospitals with stores in proportion to what has been used after a battle, there are hospital reserve-depôts, one of which belongs to every army-corps and follows it as closely as possible. They are under the direction of the *General-Etappen-Inspection*, and are supplied by this board from the large depôts at home. But, however extensive the official arrangements may be, the experience of these last years has taught that they always remain insufficient in a certain degree and for certain times, particularly after great battles; and that will happen especially in Germany, where the army is a proportionally much larger part of the nation than anywhere else. Already, in 1866, when the extension and usefulness of voluntary aid were for the first time put to a severe proof, and where it had for the most part to be created, an endeavour was made to centralise it, in order to avoid confusion and waste. The speedy end of the war stopped the full realisation of the plan; but since, in the reform of the military medical service, every attention has been paid to voluntary aid. The official chief (royal commissary and military inspector) of voluntary aid is nominated by the King at the beginning of the war: in 1866 Count Stolberg held the office; in 1870 it is held by Prince Pless. He is in communication with the various aid societies and with the war-office; by delegates (chosen in a great part among the Knights of St. John) he is represented at different places in the country, as well as in the field-hospitals and on the theatre of war.

In general, the special functions of the voluntary aid department are to collect the voluntary gifts and distribute them to the field-hospitals and troops, where they are wanted; to establish and support reserve-hospitals, and, if necessary, to offer private quarters; and to prepare male and female nurses for the hospitals and for the transport of the wounded. Direct relief to the fighting troops is furnished as much as possible by the staff of the army, and only exceptionally by the volunteers. This restriction is evidently demanded by a regard to tactic operations; which, however, does not prevent voluntary aid from coming into action after a battle, and particularly after a victorious one. Thus, in the days after the great fights near Metz, a great number of volunteers were exceedingly useful by their personal help and the materials which they brought with them. Directions as to the places and hospitals where they are wanted are given to the volunteers by the royal commissary and by his delegates. Up to the 24th August 2,702 persons were sent in this way by the royal commissary to the hospitals and battle-fields. They came from various parts of Germany, and were of different stations in life (students, clerks, tradesmen, etc.); most of them were under the guidance of medical men.

Private societies may assist hospitals by undertaking certain branches of the administration; for instance, the provision of food, cooking, nursing, etc.; or by establishing new hospitals. Such hospitals are superintended, as regards their hygiene, by a military surgeon; and they must be provided for at least twenty patients, as, otherwise, mili-

tary control over the men would be impossible. A further explanation of the aid societies I delay to my next letter, preferring to give a short description of the large barrack hospital now established near Berlin on the field of Tempelhof. Besides the other buildings, there are fifty barracks, each fitted for thirty patients, the whole hospital containing 1,500 beds. One third of the expense of building it is borne by the military exchequer, one third by the city of Berlin, and one third by the Berlin Aid Society. Each department has its own administration, the dispensary and operating room alone being in common. The barracks form a  $w$ , or rather a  $\sqrt{v}$ , with the base from north to south. Kitchens, laundries, administration and store rooms, are situated between the open ends of the wings of the  $v$ 's. Each barrack is an oblong quadrangle, with its long diameter from east to west, forty paces long and ten paces broad. At one end are four small rooms, one for the bath, one for the clothes, a small kitchen, and a room for the nurse; at the other end, outside the barrack, but connected to it by the roof, is the closet. The ward itself has doors at the two opposite ends and ten windows on each side. The building material in all the barracks is wood oiled on the inside. The roofs are covered with fire-proof pasteboard, and have a ventilator, the openings of which can be closed. For the sake of experiment the various groups of barracks differ as to the height of their base above the ground, the shape and construction of the ventilators, the manner of preparing the floor (in some the latter is covered with asphalt), etc. Some of the barracks are surrounded with galleries, which can be closed by curtains; here the windows are not of glass, but of wire-gauze. At first sight, the greater obscurity of the interior seems to be a disadvantage. Every building has gas and water, the latter being given gratuitously by the liberality of the Berlin water-works. Rails are laid down within the barracks, so as to bring the soldiers thither directly; a telegraph communicates with the town. At present the barrack-hospitals are nearly finished, and contain some hundred patients already. It is to be hoped that the severity of the winter may not put a too early end to the utilisation of this well constructed hospital.

#### THE WOUNDED IN BERLIN.

UNDER date September 4th, our Special Correspondent writes as follows.

There are in Berlin and its suburbs at present twenty-eight hospitals of different sizes, with accommodation for 3,700 sick and wounded soldiers; a number which will be increased in a few days by 900 with the completion of the barracks. On September 1st, 2,503 of the beds were occupied by patients, viz., 1,960 Germans, and 543 French. A few days ago the number of the latter was much larger; but expecting a still larger number of patients, the administration sent away all the slightly wounded who could be removed without damage. Of severely wounded, there are in Berlin at present 303 Prussians, 100 French; of slightly wounded, 957 Prussians and 303 French. Of the whole number of beds above named, not quite half are furnished by the military administration, the rest by voluntary aid societies.

#### ARRANGEMENTS IN GERMANY FOR THE SICK AND WOUNDED IN WAR.

DR. GEISSÉ of Ems has furnished us with the following interesting information in continuation of his note published in the JOURNAL of September 3rd.

*Voluntary Medical Department.*—There never has been a war in which the sanitary arrangements have been sufficient to meet all the wants of the sick and wounded. Miss Nightingale has made her name immortal by laying the foundation to a system of private help; and Durant, taking up these ideas, became the father of the Geneva Convention, the most noble creation of our century. The white flag with the red cross covers the place where loving Christian hearts and noble hands rivalise in self-sacrificing zeal to soothe the sufferings of sick and wounded, whatever their name or nation may be. The first condition of making voluntary help useful in war time consists in a thorough organisation, and submission to the military sanitary department. The necessity of this was seen in 1866; and it has been still more apparent in the present war. Since 1866, the Association for the Relief of the Sick and Wounded in War has spread all over Germany. Both in large and in small towns societies have been formed for the purposes of collecting money, educating nurses, preparing hospital requisites, etc. All these small societies have joined the general association. Each member pays an annual subscription, of which one-third is delivered to the central fund, the remaining two-thirds being used as each society considers best. The association, in war time, acts in dependence on the military sanitary department. The war had not been declared many days when the central committee from Berlin sent their order to all the branch societies, desiring them to provide what



was urgently wanted, and the call was answered well and quickly. Minute details had been given as to the kind, size, and form of everything required in the shape of lint, bandages, etc. Thousands of persons collected money, blankets, wine, brandy, preserves, extract of meat, etc. Hospitals to contain from twenty to two hundred beds sprang up; barracks were built; a medical staff was prepared; well trained nurses appeared in numbers; companies of young men volunteered to carry the wounded from the battle-field, and went out well equipped for their purpose under the guidance of medical men. They were all trained, and had some lessons in applying the tourniquet and bandaging. As soon as they appeared in the field, they had to place themselves under the command of the army-surgeons. Hundreds of medical men went to the battle-fields and into the hospitals, either to help there or to accompany the trains with the sick and wounded to the different hospitals. Wherever such a train was telegraphed to stop a short time, all the medical men of the neighbourhood were ready to do their duty in renewing the bandages, and hundreds of hands were stretched out to give refreshments of all kinds. If our railway communication from the battle-fields had been better, no wounded soldier would have been lying on the field for so long as, I am sorry to say, they did in the beginning of the war.

#### VOLUNTEERS FOR THE NATIONAL AID SOCIETY FOR THE SICK AND WOUNDED.

We are enabled to state that the Society does not intend at present to accept any additional applications for service; at all events, from none but those who can speak French and German fluently, and who are prepared to give their services during the continuance of the war.

#### HOW SCARLATINA IS SPREAD.

THE remarks which have been recently made in the JOURNAL on the manner in which the infection of scarlatina is communicated from person to person, as a result of ignorance and neglect, have had the effect of eliciting some valuable information. We have received several important communications on the subject, which are here subjoined. One is from Dr. George Johnson, the Professor of Medicine in King's College; the second from Dr. James Russell, Physician to the Birmingham General Hospital; and the third from Dr. L. O. Fox of Broughton.

Dr. Johnson writes as follows.

"I am rejoiced to find that you are directing the attention of your readers to the preventable causes of scarlet fever, for I am sure that in doing so you will confer a great benefit upon the public. I have long been convinced that the spread of this formidable disease is, in a vast number of instances, the result of gross, culpable, and even criminal negligence. It is universally acknowledged that scarlet fever is highly contagious: it is doubtful whether it ever results from any other cause, although, as with other contagious diseases, it is not possible in every case to trace the source of infection. Over-crowding and defective ventilation unquestionably favour the rapid spread of the disease through schools and other large establishments, but there is no reason to suppose any special connection between scarlatina and filth, bad drainage, or impure water.

"I have known the case of several families becoming infected by scarlatina within a few days after going into lodgings by the sea-side. The explanation of this is not difficult to find. A case of scarlatina occurs, perhaps, in a London family. As soon as the patient is convalescent, but while the skin is still peeling and thus throwing off poisonous epidermis, he goes by cab and railway to the sea-side, infecting the public carriages on his way, and finally infecting the bedding and furniture of his lodging. The proprietor of the lodging knows nothing of any infection; therefore no disinfecting process is adopted, and the next occupants of the lodgings take the disease.

"It is obviously the duty of persons who take a convalescent into a lodging while there is still risk of infection, to state the facts of the case before-hand, and to make arrangements for the subsequent disinfection of the bedding and furniture. A lodging-house keeper who neglects disinfection, knowing it to be necessary, not only incurs great moral guilt, but is liable to a penalty of twenty pounds.

"In a sea-side town, where a few years since scarlatina was very prevalent, this occurred, as I was told by the residents on the spot. A child died of the fever in a lodging-house, and the day after the funeral of that child another family, ignorant of what had happened, entered the very same apartments.

"You have mentioned the case of a laundress's child taking the fever in consequence of infected clothes being sent without warning, and, there-

fore, without the adoption of needful precautions. I believe that this is a frequent source of infection. The baskets used to convey the foul linen, and the covers, which are commonly made of woollen, become infected, and thus the infection may be communicated to the clean linen on its way home.

"The clothing and bedding of a scarlatina patient before it is sent to the wash should be scalded and then disinfected with carbolic acid.

"Quite recently I saw in consultation a child suffering from scarlatina, his sister having died the day before of the same disease. These were the children of a tailor, whose workshop adjoined and opened into the room occupied by the sick child. This affords an illustration of the way in which new clothes may become infected.

"A few days afterwards I saw another child suffering from a malignant form of scarlatina, and lying in a room at the back of a greengrocer's shop. The family, who were in attendance upon the child, were continually passing from the sick room into the shop to distribute fruit and vegetables to their customers.

"Some time since I was consulted about a young lady who had albuminuria consequent on scarlatina. A few days before this lady had sickened with the fever, her pianoforte had been tuned by a man who was obviously unwell, and who, it was afterwards ascertained, had been suffering from scarlatina.

"When scarlatina is in a house, casual visitors should be warned and excluded. In the early part of the present year, a young lady was admitted as a visitor at a house where several members were ill. She afterwards learnt that the illness was scarlatina, and a fortnight afterwards she sickened with the disease. A younger brother of this young lady, some months before, was seized with scarlatina five days after returning to school after the holidays. On inquiry, it was found that the boy with whom he slept had suffered from scarlatina during the holidays.

"The master of a large school told me quite recently that one of his pupils while at home at the end of the holidays had symptoms which excited a suspicion of scarlatina; nevertheless, his parents sent him back to school. Fortunately, the disease proved not to be scarlatina.

"About two years since, an Oxford undergraduate sickened with scarlatina; and, in obedience to orders from his parents, he returned home, travelling in a first-class carriage with five other passengers, while the eruption was fully out upon him.

"Medical attendants, especially those who practise midwifery, should be careful to avoid conveying the disease to others, washing and disinfecting the hands after touching a patient, and driving, or better, walking, in the open air are obvious precautions. A friend of mine, Dr. B., attributes the illness and death of one of his own children to his having taken the child with him in his brougham when he was visiting a succession of cases of scarlatina.

"It is notorious that articles of furniture or clothing, if shut up without being cleansed and disinfected, may be a source of danger for an indefinite period. Some years ago the following illustration of this came to my knowledge. A child, on a visit to an unmarried aunt in the country, sickened with scarlatina immediately after her arrival, and it is probable that she took the disease with her. The child died of the disease. More than a year afterwards, another niece on a visit to the same house took scarlatina and died. On careful inquiry as to the probable source of infection, it was found that a dressed doll which had been nursed by the first child during her illness, and which since her death had been put away in a drawer, had been taken out and given to the second child some days before she became ill. What renders it the more probable that the doll's clothes were the source of infection, is the fact that in the interval between the deaths of the two children some older children who had visited the house, but who had neither seen nor touched the doll, remained well."

Dr. James Russell has addressed to us the following communication.

"It is greatly to be desired that the highly practical remarks you make respecting the propagation of scarlet fever may attract general attention. I apprehend that an important feature in the poison of scarlet fever is the tenacity with which it attaches itself to articles of clothing, particularly those of a woollen nature. The following occurrences raise a collateral question: How long will the contagium of scarlet fever retain its vitality, or, to speak without theory, continue able to generate the disease? I mention the first case simply as showing the curious manner in which this question may present itself. It would, of course, require very strong corroborative evidence to remove it from the category of coincidences. The other two cases have a directly practical bearing. A former physician to the General Hospital in this town, intimately known to myself, lost a sister from scarlet fever in early life. The death occurred at a boarding-school. The clothes were packed up in a carpet-bag, and sent in that state to the young