SCIENCE

FRIDAY, SEPTEMBER 21, 1888.

THE WANT which has been long felt in cities for properly trained nurses has been fully met by the training-schools, which have sprung up in almost every city, and in connection with almost every hospital. But in the smaller towns and villages the need is as great as ever, and, so far as we know, no effort has been made to meet it. It has been claimed that the supply has not been furnished because there was no demand for such services. This may be true to some extent, but does not account for the almost total lack of properly educated nurses in the country. The explanation is, we think, rather that, the system being a comparatively modern one, it was but natural that it should at first be put into operation in the large centres of population; and, as these are now fairly well supplied, it will doubtless follow that when the supply exceeds the demand, as it bids fair soon to do, the trained nurse will naturally seek employment in the smaller towns and villages. In the mean time residents of these villages who desire to introduce such a system into the places of their residence will find the fullest instructions in a book recently written by Dr. Worcester of Waltham, entitled 'A New Way of training Nurses.'

THE STANLEY EXPEDITION.

IT may be well to review at the present time the progress of the Stanley expedition and the events on the upper Kongo, in order to understand the real value of the numerous rumors that have been reported as to the fate of the explorer and of his caravan. On March 18, 1887, Stanley arrived at Banana, and with some difficulty reached Leopoldville on Stanley Pool on April 20. On June 2 he left his camp at the mouth of the Aruvimi, ascending the latter river. At that time it was hoped by well-informed persons that he might be able to reach Wadelai towards the end of July, although a delay of many months did not seem at all improbable. On Aug. 4 it was announced that on the 18th of June, Stanley had reached the rapids of the Aruvimi, and that he was preparing to make a portage. On June 23 Stanley sent a letter from Yambuya on the Aruvimi, and on July 12 a despatch was sent that all was well. He was proceeding up the Aruvimi with a caravan of fifty Europeans and four hundred and sixty-five soldiers and carriers.

Near the mouth of the Aruvimi, Major Barttelot was left in command of a fortified camp with four European and one hundred and twenty-five Zanzibar soldiers, and ample provisions, with the instruction to follow on Stanley's route as soon as Tippo-Tip should have gathered a sufficient number of carriers. It will be remembered that at that time the Arabs were in possession of Stanley Falls Station, and that, by appointing Tippo-Tip chief, the Kongo Free State hoped to again get control of that place. On May 31 Stanley and Tippo-Tip separated, after having passed Bangala. The latter, accompanied by ninety-six persons, and Major Barttelot, who was in command of forty Sudanese soldiers, proceeded up the Kongo. On June 22 Barttelot reached Yambuya, where he met Stanley. Tippo-Tip, on his arrival at Stanley Falls, and on announcing his appointment as chief of the Falls Station, met with some resistance among the Arabs, particularly from one Said-ben-Habub, who refused to obey him. Tippo-Tip then demanded from the Kongo State two officers and thirty soldiers for enforcing his commands. When this news reached Europe, Captain Liévin Van de Velde was appointed commander of the garrison of Stanley Falls, and left Antwerp on Oct. 23. Unfortunately he died a few days after his arrival on the Kongo. For a long time no news from Barttelot reached the coast, until a despatch from St. Paul de Loanda, dated May 1, announced that Mr. Ward had arrived from Yambuya at Boma, with the news that nothing had been heard from Stanley since July, 1887. Tippo-Tip had left for Kasongo, situated above the Falls, on Nov. 16, but in March he had procured only two hundred and fifty carriers. Jamieson had gone to the same place to urge the despatch of three hundred and fifty carriers more who were wanted. He was expected back at Yambuya on May 14, and Barttelot did not expect to leave until June 1. It was his intention to proceed *via* Stanley Falls, where he intended to leave an officer in charge of every thing he could spare. Later on, Jamieson reported their intention to start. The last news from this region was that the Falls Station was re-occupied by the Kongo Free State, under command of Captain van Gèle.

The numerous reports of Stanley's death or of his progress that were published at brief intervals were without any foundation. The only rumors from the west coast that had any elements of truth were contained in Barttelot's last letter, which was received in Brussels on the 15th of June. In December, 1887, several deserters from Stanley's expedition were met with several days' journey up the Aruvimi by Arabs. They told that they had left Stanley after five months' hard travelling in a mountainous region, covered with dense forest and very populous, the expedition having to fight frequently against the natives. In one of these struggles Stanley was said to be wounded. The situation at Yambuya was very difficult on account of scarcity of food. Tippo-Tip, although not unwilling to keep his promise of sending carriers, found it extremely difficult to induce the natives to take part in an expedition toward the unknown northern regions.

It is well known that deserters always describe the state of the caravans as hopeless, in order to exculpate themselves, and therefore their tale must be accepted *cum grano salis*. This report was repeated, somewhat amplified and exaggerated, by a despatch of Reuter's Bureau.

We turn to considering the news coming from East Africa. A despatch of May 28 shows how slowly trustworthy information travels this way. This telegram, which was published in the London *Times*, stated that letters were received from Barttelot, dated Stanley Falls, Oct. 25, which referred to some deserters having come down to that station.

While this meagre news is all we know about Stanley, letters from Emin Pacha come in comparatively regularly, showing that an open route exists from his province to Zanzibar. The last letter from the region occupied by Emin Pacha was written on Dec. 5, 1887, by Casati, at Guaia in Unyoro. He says, "I do not believe that Stanley will arrive very soon. No news, however vague, has come here from the West. I am convinced that he cannot be here before March. The size of his caravan, and consequent difficulty of obtaining provisions, sickness, etc., — these are serious obstacles to his rapid progress."

Another report from this region was obtained at Cairo, July 5. A messenger who had left Khartum May 25 says that he has noticed the preparations made by the Mahdi since the middle of March for an expedition against Emin. The expedition consisted of four thousand men, who took passage in four old steamboats of Gordon.

The last exciting reports from this region are the Reuter despatches referring to the white pacha who was said to be encountered by Arabs in the Bahr-el-Gazal region. It is hardly possible to tell what may be the foundation of these repeated reports.

From all these facts we conclude that there is no foundation to the numerous reports of Stanley's death. The difficulties he must have encountered on his march must have been unexpected, or he may have had in view an object entirely different from the alleged 'relief' of Emin Pacha. So far, we are not justified in supposing that he has perished, else some news to this effect would have reached the Kongo.

A few days ago a despatch was sent from the Kongo reporting

the death of Barttelot, who was murdered by his carriers. It has not been stated how this news reached the coast, but, since the re-establishment of intercourse with Stanley Falls, its authenticity seems not improbable. The cable (London, Sept. 14) reports, "A despatch from St. Paul de Loanda states that Major Barttelot was shot on July 19 by his Manyema carriers. The head Arab and his men thereupon ran off to Stanley Falls, where Jamieson is making arrangements with Tippo-Tip for the organization of an expedition. He will proceed as quickly as possible. The London newspapers are unanimously of the opinion that Major Barttelot was betrayed by Tippo-Tip, who organized the native portion of the expedition; and the question is asked, Why may not Stanley have been also the victim of his treachery? Nyangwe, the home of Tippo-Tip, is three hundred miles distant from Stanley Falls. The first despatch said that Tippo-Tip was at Nyangwe. The second does not indicate whether he is still there, or has returned to Stanley Falls. Colonel De Winton is of the opinion that Barttelot was murdered between the twenty-eighth and twenty-ninth degrees of east longitude at about the second degree of north latitude. The Manyema twice attempted to take Livingstone's life. The second despatch removes from the Arabs the suspicion of treachery."

All the evidence tends to show that there is no intention on the part of Tippo-Tip to betray Stanley. Furthermore, it must be borne in mind that Barttelot at an early date had an encounter with natives of the same tribe, in which several of Tippo-Tip's men were killed. It seems that he was almost too energetic in his dealings with the natives.

A despatch dated London, Sept. 16, says, "Captain Vangele, who has just returned to Europe from the Kongo country, says he is convinced of Tippo-Tip's innocence of the murder of Major Barttelot. Tippo-Tip, he says, is engaged entirely in commerce, and had an interest in the success of Major Barttelot's expedition. The porters who accompanied the expedition were furnished by Tippo-Tip. They agreed that they should be paid on reaching Zanzibar, and to this fact Captain Vangele partly attributes the murder, because the payment of the porters depended upon the success of the journey. He thinks the strict discipline preserved by Barttelot may also have aroused hostility. He believes that Jamieson will find it difficult to organize a new expedition. Captain Vangele is convinced that Stanley is safe."

It is not quite clear to us whether 'Vangele' is the same Van Gèle who left Leopoldville on April 26 to occupy Stanley Falls. His return to Europe at this time seems hardly probable, although we do not know what has been going on on the upper Kongo during the last months.

Meanwhile committees are forming in various countries for the relief of Emin, or rather for supplying Emin with ammunition and opening a route to his province. Foremost in these endeavors is at present the German East African Association, but so far no definite results have been obtained.

MEDICAL MUSEUMS.

THE Congress of American Physicians and Surgeons closed its meeting in Washington last evening with an address in the National Museum from the president, Dr. John S. Billings, and a reception in the Army Medical Museum. Dr. Billings's audience was a large and appreciative one; and he made his address on medical museums, with special reference to the Army Medical Museum at Washington, exceedingly interesting as well as instructive and suggestive.

The necessity of economizing space prevents the reproduction here of the very interesting historical enumeration of the leading medical museums of the world, with which Dr. Billings opened his address, and we pass at once to the central topic, condensing as the exigencies of space demand. He said: —

"This collection, known as the Army Medical Museum, owes its inception to Dr. William A. Hammond, one of whose first acts after becoming surgeon-general, in 1862, was to issue a circular stating, that, 'as it is proposed to establish in Washington an army medical museum, medical officers are directed diligently to collect, and to forward to the office of the surgeon-general, all specimens of morbid anatomy, surgical or medical, which may be regarded as valuable, together with projectiles and foreign bodies removed, and such other matters as may prove of interest in the study of military medicine or surgery.' By the end of the year, over a thousand specimens had been collected, and the catalogue printed in 1866 showed that it contained 7,716 specimens. It is not my purpose in this address to trace the history of its development: that must be done elsewhere. It has recently been placed, with the library, in a conveniently arranged fire-proof building, and on the 1st of July last contained over 15,000 specimens besides those contained in its microscopical department, divided as follows: —

Comparative anatomy	1,689
Pathological	8,354
Medals	384
Microscopical specimens	10,416
Normal human anatomy	2,961
Instruments and apparatus	814
Microscopes	141
Miscellaneous	835

"Besides these, there are 375 specimens pertaining to normal human anatomy, and 726 to pathological anatomy, which are in what is called the 'provisional series.'

"At first the Army Medical Museum was limited to military medical subjects; but of late years its scope has been greatly broadened, and is now nearly the same as that of the Royal College of Surgeons. It includes human anatomy, physiology, pathology, somatological anthropology, instruments and apparatus, and illustrations of methods of teaching connected with special departments of practical medicine. It does not at present include hygiene or materia medica, except in their immediate relations to the military medical service; and this for reasons which will be stated presently. That our National Medical Museum should be broad and comprehensive in its scope, there can be no doubt, its requirements in this respect being quite different from those of collections formed and used more especially for the purpose of teaching medical students. The most practically valuable of these last are those formed by individual professors to suit their own specialties and methods of teaching. They need not, as a rule, be large. I may even say that they should not be large; for the labor of properly preserving a large collection is great, and the student, with his limited time and want of knowledge of what to look for, can examine but few specimens so as to profit by them. For the same reason specimens of rare abnormities, of double monstrosities, etc., are of little use in ordinary medical teaching as given in this country, and are not specially desirable in the museums of our medical schools.

"You may have noticed, that, in speaking of the scope of our museum, I said it included 'human anatomy.' This phrase does not mean that it has no specimens illustrating the structure of other animals, for it has many, and needs many more; but it means that in this department its main purpose is not to make comparative anatomy an end to itself by exhibiting all known variations in structure throughout the animal kingdom as a basis for their study in relation to development and environment, causation and results: in other words, it is not an anatomical museum, but a medical museum. The broad field of general biology, including natural history and comparative anatomy, will ultimately be covered by the National Museum; and in our medical collection it will be quite enough to illustrate human anatomy fully, using so much of the structure of the lower animals as will be useful in explaining why certain parts of the human body are thus and so, and not otherwise. No sharp line of distinction can be drawn between the field of work of the general and that of the medical museum. So far as morphology is concerned, they must necessarily overlap somewhat, since both want a certain number of the same specimens, although using them to illustrate different points of view.

"The kind of specimens most valued for illustrating anatomy in a museum is now very different from what was sought for in the first half of this century. Dried and varnished dissections showing blood-vessels, etc., are now looked on as nearly useless, and are kept only as historical relics. Elaborate dissections under alcohol, mounted in opaque dishes with flat glass covers, and sections of frozen bodies similarly mounted, are what the student and the practitioner most desire to see. In our museum there are some ex-