

the urethra being everted by the examining finger. If there is any evidence of its existence, and this seemed by far the most frequent complaint, the urethra and bladder were injected with a 1 in 5000 of water solution of corrosive sublimate. This is repeated twice a day, seems absolutely painless, and cures in from ten to twelve days. Lacerations are treated with iodoform. Ulcerations, non-specific, of the cervix, with glycerine of tannin. For syphilis, subcutaneous injections of the formamide of mercury as in the Kommune Hospital, only the injections are made daily for 21 days, then every second day. Mucous patches are treated with chromic acid solution, latterly as strong as one in five. The gonococcus is often looked for in gonorrhœa, and is usually found. In examining the patients, except specula, no mechanical means were used to replace the fingers, though I was shown flat lead spatulæ at one time employed to separate the labia, now disused. Occasional cases of contagion from examination have occurred. The women were mostly young, but there were none very young, and there was one whose age was stated as 49.

II.—CITY AMBULANCE ASSOCIATIONS.

By PETER ALEXANDER YOUNG, M.D., Chairman of the Executive Committee of the Edinburgh St Andrew's Ambulance Association.

PROBABLY the first organized attempt to render aid to the sick and wounded originated during the Crusades, when orders of Hospitallers were founded. At first the members were not nobles, but undertook the work from a benevolent spirit, and with the desire to render help to their fellow-men in the hour of need. As time went on, these orders lost their original function, and became military knightly orders. Carlyle thus speaks of the beginning of one of the proudest of these orders, the Teutsche Ritter of the Marie-Orden, founded in 1190 at Acre:—"A company of pious souls—compassionate Lübeck ship captains, diligently forwarding it, and one Walpot von Bessenheim, a citizen of Bremen, taking the lead—formed themselves into a union for succour of the sick and dying, 'set up canvas tents,' medicinal assuagements, from the Lübeck ship stores; and did what utmost was in them silently, in the name of Mercy and Heaven." These orders arose out of the necessities of war, and do not seem to have continued their work in their native countries during peace.

The only remains in England of these orders is the modern St John's Ambulance Association, descended from the order of St John of Jerusalem, and is now entirely devoted to civil work. The chief function of this association is to educate its members in first aid to those who are suddenly seized with sickness or are hurt. They also supply ambulance *matériel* to different places throughout England.

As in many other practical points, our American cousins have been ahead of us in the matter of ambulance organization. In the city of New York a complete ambulance system has been at work for some years. Dr Howard, well known as the introducer of a new method of artificial respiration, has devoted himself to this subject, and has done much to render first and speedy aid to the injured. The system is very complete, and fulfils its object admirably. Certain hospitals, which are in telephonic communication with the principal works and public centres, have an ambulance surgeon always on duty, and one of Dr Howard's ambulance waggons in readiness with a horse and man. When an accident occurs at any point, a telephonic message is sent to the hospital. A horse stands always partially harnessed, so that in a minute or two it can be yoked to the waggon. By the time this is completed the surgeon is ready, and jumping into the waggon it is rapidly driven to the place where the accident has happened. All street traffic gives way to an ambulance waggon, so that nothing can hinder rapidity of progress. Arrived at the scene of the accident, the surgeon renders first aid to the wounded person, if this has not been already done. For this purpose he has splints and bandages in a box under the driver's seat of the waggon. There are also different antiseptic dressings and restoratives in another part of the vehicle. The man being dressed is lifted on to the waggon stretcher and then put into the waggon, which conveys the patient to his own house or to the hospital.

This organization has been in operation in New York for some years, and also in Boston and Chicago, and is found to work well, and has done much good work.

This system has been introduced into England within the last year or two, in a modified form, by the London Ambulance Service, under the presidency of H.R.H. the Duke of Cambridge. "It has already supplied Howard's pattern of sick transport carriages to Stoke-Newington Police Office, to Fulham Police Office, and also to Lambeth Police Station. A hand-ambulance, covered in and built on Howard's system, has also been supplied to Stepney parish. But, unfortunately, the London hospitals have not joined in any way in the movement."¹

In London the St John's Ambulance Association is doing much good in training men to render first aid to the injured. They have trained, in addition to artizans, railway men and policemen,—the two last being specially such as should receive instruction in ambulance work. The St John's Ambulance Association has branches or "centres" throughout the country.

I had last year an opportunity of seeing the ambulance in connexion with the Northern Hospital, Liverpool. A resident ambulance surgeon or substitute is always in attendance, and a Howard

¹ *Ambulance Organization, Equipment, and Transport.* International Health Exhibition Handbook. By Surgeon-Major G. J. H. Evatt, M.D., A.M.D.

ambulance waggon ready in a building behind the hospital. The man in charge has a house adjoining this building, and a horse is kept harnessed with only the bridle to be put on when a summons comes. The hospital being near the docks, the ambulance has plenty of work, and is found to be a great benefit to the injured, bringing them in in comfort and safety.

In Scotland there has lately been great activity in ambulance work. In Glasgow two years ago an association was formed called the St Andrew's Ambulance Association. Its objects are to train men connected with the different public works in first aid to wounded, and to supply transport to sick and wounded. Classes have been formed and lectures given throughout the city and district. After the course is finished an examination is held, and those gaining 50 per cent. and upwards of the available marks are entitled to two certificates, one of which is small, and can be carried in the pocket and produced when necessary to show that the holder is a trained ambulance man. In most of the works in the city there are boxes containing first dressings, splints, etc., and a stretcher. When an accident occurs the ambulance men in the work do what is necessary for the temporary relief of the injured person; and if the distance to which the patient has to be removed is too far for him to be carried on a stretcher, a telephonic message is sent to the central office, where the ambulance carriage is stationed; and being always in readiness, it is quickly at the point wanted, and the sufferer is removed comfortably and expeditiously. The Howard carriage is largely used to convey cases of non-infectious illness to the hospitals from private houses. At term time the waggon is much employed in carrying sick persons from one house to another.

This year a similar organization has been inaugurated in Edinburgh, and has been affiliated with the Glasgow Society. The city is divided into five districts with a committee of management for each; there is also a central executive committee. The classes have been largely attended, 280 men and 4 women having taken the certificate, and much enthusiasm has been manifested. As yet there is no ambulance waggon, but it is contemplated having one at a central point, with a hand-litter at each of the fire stations. The owners of works have in many cases supplied stretchers which are always in readiness at their works. It is proposed in addition to the ordinary dressings to issue some simply applied antiseptic, so as to render compound fractures aseptic without loss of time. Already many cases of injury have received first aid, and have been taken to the Royal Infirmary, where the surgeon in charge has expressed approval of the manner in which the dressing and splints have been applied, and of the care with which the removal of the patient has been conducted. St Andrew's Ambulance men have also been employed to convey sick persons arriving from the country, from the railway stations to their own houses, or from one house to another. The cases treated by ambulance men are always

reported, and will, it is confidently believed, form an interesting record of the work of the society.

In Dundee, Dr David M'Ewan, surgeon to the infirmary, informs me a "centre" of the St John's Ambulance Association was formed at the beginning of this year. Classes were held for instruction in "first aid," and were very popular. There were 10 classes in all, 4 for women and 6 for men. They were attended by 621 pupils, 389 men and 232 women. For examination 286 men presented themselves, of whom 260 passed, and 98 women, of whom 81 passed. As a result of this movement, a large number of the mill-owners and others have provided for their works the necessary ambulance *matériel* for use in case of accident.

In Aberdeen no distinct civil ambulance organization exists, but Dr Angus Fraser tells me the police surgeon has given a course of lectures to the police.

It is evident that the advantages of the training given by the ambulance associations are great. When one sees the difference between trained and untrained men lifting an injured person one can judge of the benefit more readily. The comfort, as well as safety, to a man with say a compound fracture of his leg to be properly carried, cannot be over-estimated. I knew a colonel of volunteers who broke his leg by his horse falling while on parade. His men procured a stretcher, and with all the care they could command, but unfortunately it was untrained care, lifted their commanding officer on to the stretcher, but from awkwardness threw him twice out of the stretcher while carrying him home, much to the hurt of the fracture.

It is particularly necessary that railway employés should be trained in first aid, for from our railways comes a large proportion of our accidents. First dressings, an Esmarch band for arresting bleeding, and a stretcher, should be kept at all the principal railway stations. Policemen should also possess a knowledge of ambulance work, for they are the wounded and sick carriers of the community in most cases. It is to be hoped that the civic authorities will see to this, and encourage policemen by an addition to their pay to qualify as ambulance men.

But there is no class who may not at some time or other be called upon to assist injured people. The facilities offered for giving the necessary instruction are so numerous that no one need be without the required knowledge. While a little knowledge may be a bad thing, care is always taken in the lectures to warn all that they must not presume on their knowledge, but only to do what they know to be right, as laid down in the instructions for their guidance, and only till the doctor comes.

As a result of the ambulance movement, a non-medical passer-by instead of fainting at the sight of blood, or being a helpless looker-on, may prove "in need a friend indeed," by saving discomfort and pain, or even life itself.