

Caisson Disease.

Caisson disease is one which is little heard of in this country, but it levies a terrible toll on human life in certain employments in America. When the Hudson River Tunnel was being constructed, a few years ago, the mortality amongst the workmen was no less than 25 per cent. Recently, caisson disease has broken out among the navvies working under compressed air at the foundations of the new bridge from New York to Blackwell's Island; several have died and one has become insane.

That the disease is preventable if proper precautions are taken is evident from the record in connection with the Blackwall Tunnel and the Greenwich Tunnel, which were constructed for the London County Council under conditions very similar to those which prevailed during the construction of the Hudson River Tunnel. As is pointed out by a contemporary, not a single man died from the effects of compressed air. The same authority describes the symptoms of the disease.

"Caisson disease" is so called because compressed air, which causes it, was first employed in the caissons of harbour works, but it is experienced in shafts or tunnels anywhere where compressed air has to be breathed. It is probably caused by the excess of gases taken into solution by the blood and the other liquids of the body during the workman's stay in the chamber behind the shield, which is filled with compressed air in order to keep out the water while the segments of the tunnel lining are being bolted together in position. It generally attacks the workman in the form of severe pains in the limbs and stomach, followed often by total paralysis of the legs, deafness, giddiness, and bleeding from the nose and ears. These symptoms appear not when the man is actually at work in the compressed air chamber, but on leaving it and returning to the ordinary atmosphere. When the Blackwall Tunnel was built the men on leaving the compressed air chamber had to spend some time in an air-lock with chambers subjected to a gradually decreasing air-pressure.

The London County Council has successfully grappled with the disease by the following methods:—

The appointment of a medical officer.

The insertion of a stringent clause in their contract binding the contractors to furnish proper ventilation, proper air locks, and facilities for medical examination.

By obtaining Parliamentary power to compensate men who were injured by working in compressed air, although they were technically in the employ of the contractors, not of the Council.

By frequently analysing the air in the workings and renewing it when impure.

It will thus be seen that by due care isolated cases, if treated in time, can be usually cured, and that epidemics need never occur.

The Training of Nurses in Switzerland.

By Miss MARY BURR.

Chance some time ago brought me into contact with a Swiss-trained nurse. Her crude methods aroused many questions in my mind, and I decided that, given the opportunity, I would inquire into the methods by which these nurses obtained the diplomas which one sees so frequently advertised.

I found that the majority were formed—I can scarcely call them trained—by one of three institutions—the Deaconesses, of which there are three different Homes; the Red Cross Society; and the private schools.

I visited the three Homes for Deaconesses—St. Loup, near Lausanne; Richen, near Bâle; and Neumunster at Zurich.

These Homes work on very much the same lines, and supply the greater part of Switzerland with nurses, both for hospitals and private families.

Two have passed beyond their own land into neighbouring territory. The Deaconesses of St. Loup have started a branch at Turin, in order to train young Italian women as nurses; and Richen sends Sisters into Germany.

Young women wishing to enter any of these Homes must have the consent of parents or guardians, and must not be less than eighteen years of age. They then pass a period of probation, which varies from seven months to two years, in the Motherhouse, doing any kind of work that may be given them to do by the Mother. It may be gardening, dressmaking, laundrying, kitchen work, or nursing. Those who show any aptitude for any one thing, providing it is practical, are usually kept at that work. The majority, however, become nurses, as each Home has a hospital attached, that of Neumunster being the largest.

The novices, or, as we should call them, probationers, are expected to supply themselves with sufficient clothing to last at least one year. They receive no salary, but simply pocket-money, amounting to the sum of from 16s. to £2 per year, according to the length of service. After the novitiate is over they receive the uniform of the house, which usually consists of a black stuff dress, one or two cotton dresses, aprons, collars, caps, and, in some cases, a bonnet and small cape to be worn out of doors. When no bonnet is given, the white cap (which is similar to the Sister Dora in shape, but worn to fit closely round the face) is the only head-gear worn in or out of doors. There is no specified number of garments given, because, as they now belong to one large family, things are supplied as needed, and all are worn as long as possible.

When the novice has donned the uniform she becomes Sister, and is sent into the world to take her place beside others of her house who are working

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