did. If we were to cut across this part of the lung we should find it dense, airless, and fleshy, instead of being soft, elastic, and crepitating with air as normal lungs should be. The cause of all this is simply that the affected part of the lung contains far more blood than it does naturally; its vessels are all engorged with blood, and into the lung tissue the blood perspires, so to speak, serum and lymph. The mucous membrane of the air tubes are swollen by the congestion and covered with thick glairy mucus, which, choking up the air vesicles and the finer tubes, completely prevents the access of air. In short, you will understand that the inflamed part of the lung is incapable of doing any work; it takes no air into it, it gives no carbonic acid out. It becomes solidified, and useless in consequence of the blocking up of its air tubes. Now, remembering the importance to life of the due oxidation of the blood, that is to say, of the free action of the lungs, it will be easily comprehended that the danger to the patient is almost exactly proportional to the extent of lung tissue which is involved in the inflammation, and, consequently, the danger of "Double Pneumonia," or inflammation of both lungs, is very great indeed. The first object of the doctor is, therefore, to obtain the removal of the lung congestion as speedily as possible. This is, however, no easy matter to effect, and meanwhile, as we shall see, irreparable harm may be done to the affected tissue. In an ordinary case of simple inflammation, the difficulty of breathing will continue until relief is given by appropriate treatment, or by the natural efforts of the circulation of the lungs to accommodate themselves to the altered conditions. The temperature remains more or less high, the breathing more or less embarrassed, until the eighth day when, as a general rule, what is called a "CRISIS" occurs-that is to say, a sudden alteration in the course of the disease. So, the temperature will suddenly fall in an hour or two to normal, with profuse perspiration, which leaves the patient weak and exhausted, but at the same time feeling much relieved so far as his breathing is concerned. Then the lung may gradually recover itself, the dilated vessels may contract and force onwards their contents, while the actively moving blood may suck up from the tissues, once more, the fluid which it had effused, whilst stagnated. The breathing gradually becomes natural, as the air vesicles and tubes become free from the mucus which clogged them, and the patient slowly recovers health and strength. But, if the constitution of the patient—that is to say, his ability to recover well from disease-be unhealthy, the inflammation of the lung may go on to the formation of "abscesses" in the lung, the fluid

and lymph, instead of becoming re-absorbed becoming converted into what is called "*pus*, or what is popularly known as "matter." And these abscesses, or collections of pus, will soften and break down the lung tissue around them, and will show their presence by increasing fever, by expectoration of pus, by profuse night sweats, and by steadily increasing exhaustion, until the patient either slowly recovers with part of his lung permanently damaged and contracted, or, more usually, drifts into the condition of gradual wasting and enfeeblement, to which the name of Chronic Consumption is ordinarily given.

Then the Pneumonia which is due to tubercular deposit in the tissue of the lung differs from the simple Pneumonia which has been described in its first symptoms, seeing that as a rule the patients go through a stage of gradually increasing ill-health and gradually increasing fever, and also in the facts that there are usually a number of small patches involved, and that the fever is usually of a prolonged character, not disappearing by "crisis" on the eighth day. As a general rule, the inflammation leads to the formation of small abscesses and what are called "cavities" throughout both lungs, and then, either by the whole system becoming involved through the dissemination of the tubercular bacillus in other organs, with inflammation following in each, or by the gradual development of the disease in the lungs, the patient slowly wastes away and dies.

With regard to the Pneumonia occurring as a secondary result of disease in some other organ, whether this be due to what is usually called PYÆMIA, or "blood-poisoning," or to cancerous growths, the progress of the case is almost invariably towards a rapidly fatal termination. Shivering attacks generally occur at frequent intervals, and are of such severity that the patient's teeth chatter together, while the trembling of his body will shake his bed ; the temperature meanwhile rising to a high degree, and each rigor being followed by profuse perspirations, which leave him utterly exhausted.

While the causation of the various forms of Pneumonia and their several results and their medical treatments are thus widely different, the Nursing is practically conducted on precisely the same principles in every case.

The first essential is to afford to the patient as much ease in breathing as possible. Consequently, it is in these cases that oxygen affords such wonderful relief, seeing that it makes up in its concentrated form for the air which the lungs require, but which the damaged organ finds it so difficult, if not impossible, to absorb.

## (To be continued.)



