

the skin, the precise formation of the Pericardium can be realised; because the layer of the bag which envelopes the heart is closely adherent over its whole surface and is reflected at the top of the organ as the outer layer thus leaving, therefore, a cavity between the two layers.

In health, this cavity is empty except for a little oily secretion formed by the serous membrane, and which has the effect of enabling the two apposed surfaces of the Pericardium to roll and slide easily over one another, while the outer layer protects the surface of the heart from direct contact with the ribs in front and the lungs on either side.

In health, therefore, the ear placed on the chest wall cannot distinguish the movements of the Pericardium, but, in disease, the apposed surfaces of the bag become more or less roughened, so that there can be heard over the Heart's area a distinct rubbing sound caused by the friction of one layer of the Pericardium against the other. This rough grating sound is typical of Pericarditis, or inflammation of the Pericardium; and its occurrence is easily explainable. In consequence of an injury—such as the breaking of a rib over the pericardial area, or, more frequently, of exposure to cold, or during the course of an attack of Acute Rheumatism and other fevers, the surface of the membrane becomes congested and swollen; and, instead of the oily serum, which it secretes in health, a whitish lymph is exuded from its surface.

In mild cases, this lymph adheres to the inflamed area, and sets up sufficient friction against the opposite side of the Pericardium, during the movements of the Heart, to cause the rubbing sound already described. In most instances, however, the inflammatory condition spreads more or less over the whole of the pericardial surface. The amount of lymph which then exudes is often considerable; it will flow down to the bottom of the bag and may more or less fill up and even distend its cavity. It will be obvious that the presence of such fluid in the closed cavity, in which the Heart is supposed to move easily, must have a more or less compressing effect upon the organ, and cause more or less interference with its movements; so that, the greater the amount of the fluid, the greater will be the difficulty experienced by the Heart; while, on the other hand, the less fluid there is, the less will the mobility of the organ be interfered with.



## Medical Matters.

### PLAGUE.

MR. CANTLIE, in the *Medical Times*, recently gave the following valuable summary of the present progress of this disease. In Oporto, the cases of plague reported are only some two or three weekly. No direct evidence exists that the disease is prevalent in Portugal beyond Oporto and its immediate vicinity. In Alexandria, after a three weeks interval, a case of plague has occurred. In India, plague seems to be reappearing in the Deccan, Mysore, and Hyderabad, and in the Bombay Presidency between 5,000 and 6,000 deaths occur weekly. In Hongkong, the epidemic has subsided, one case and one death weekly being the plague record for the past three weeks. In Mauritius, plague is still epidemic, some 80 cases occurring weekly. Santos a seaport on the Brazilian coast, south from Rio de Janeiro, is officially announced to be suffering from plague. This is the first time plague has ever reached the American Continent, and it has, as usual, selected one of the most insanitary localities on the whole of the littoral. Lorenzo Marques, the Portuguese port in South East Africa to the north of Durban, would seem to be the seat of plague, although scarcely in an epidemic form as yet. The presence of plague so close to the seat of the present campaign is calculated to create considerable anxiety. Refugees in many instances in a destitute condition are crowding into the seaport towns of South-East Africa at present, and overcrowding is necessary consequence. Towns with such a population are in the very condition to develop plague.

### CONSUMPTION.

A well-known Canadian authority has recently advocated, for the proper treatment of Consumption amongst the poorer classes, the following measures:—(1) The establishment and maintenance of a Rural Sanatorium in connection with each municipality or group of municipalities for cases which admit of hope of cure. (2) Suitable isolated buildings in connection with these sanatoria for the reception of advanced cases. (3) The co-operation of Parliament, local legislatures and municipalities, philanthropic and charitable organisations and

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