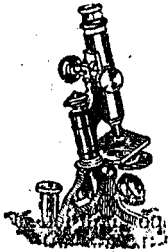


## Medical Matters.

### THE TWIN SISTER OF DEATH.



The phenomena of sleep have always possessed a peculiar interest for scientific men. Shakespeare not inaptly called sleep the twin sister of death, and philosophers of every age have racked their brains in investigating its mysteries.

An American paper gives the result of some researches on the subject recently made by Italian students. It has long been known that age, sex, occupation, and state of health influence the period of unconsciousness termed sleep, and also the soundness of sleep. Again, it has been thought that sleep is variable with every individual, although slumber may be practically unbroken. The fluctuations of the depth of sleep have been the object of the investigations of Dr. Sante de Sanctis and Dr. D. Neyroz, of the University of Rome, who have conducted a series of experiments extending over six months. Nine persons, four of whom were thoroughly healthy, and five of whom had diseased nervous systems, were selected as the subjects of these tests. The general plan of procedure was to wait until they had fallen asleep, and then to employ uniform means to awaken them.

An instrument, named the *æsthesiometer*, was used for this purpose. The essential parts of the sleep measurer were a blunt point to be pressed against the skin, a spiral spring, and a carefully-graduated scale, which showed the degrees of pressure used. The point was gently applied to the sleeper's left temple, and pressed until he awoke, when the scale was examined and notes were made of the hour and minute, and of the scale-reading. The same person was not awakened more than once or twice a night, but the experiments were so timed that in the course of a few months they covered the whole eight-hour period during which sleep lasted, at intervals of ten or fifteen minutes several times over.

The result of these experiments showed that the soundest sleep in the four healthy subjects occurred between an hour and a-quarter and an hour and a-half after lapsing into unconsciousness. During this period unconsciousness rapidly and almost steadily increased, and then in the next quarter of an hour

greatly diminished. Thereafter surprising oscillations were detected on the average, though the stages of lightest sleep occurred about four and a-half and again five and a-half hours from the beginning. A short, low, secondary maximum of intensity followed in the next hour and a-half or two hours. From this point the decline was rapid to the final awakening. In those of diseased nervous systems, epileptics and paralytics, very much the same state of things was observed, except that they slept more profoundly than the healthy subjects, and in one person the unconsciousness at the end of fifteen minutes was almost as marked as at an hour and a-half.

### REDUCTION OF INFANT MORTALITY IN CITY OF NEW YORK.

Dr. R. G. Freeman (*Medical News*) says:—The infant mortality of all countries is shockingly high, and this is shown to be unnecessary by the fact that infants that are well cared for show a very low mortality. The influences that contribute to the high mortality are defective feeding, the active cause; and heat and humidity and bad surroundings as contributory causes. There has been a marked decline, in infant mortality during the last ten years in the United States, and especially in New York City, due, for the most part, to the decline in mortality from summer diarrhoea. The striking decline in infant mortality is due to many agencies. The general adoption of pasteurisation and sterilisation of milk for infant-feeding is by far the most important of these, and applies to New York City and the whole of the United States. Other agencies in New York City are the improved city administration; the milk inspection of the Department of Health; the Straus Milk Charity; the fresh-air work of St. John's Guild and similar charities; cleaner streets and asphalt pavements; the new small parks, playgrounds, and the recreation piers; the improved tenements, and the use of diphtheria antitoxin.

### TUBERCULOSIS IN SOUTH AFRICA.

It is announced that the South African Medical Congress has initiated a movement for the formation of an association for the prevention of consumption and other forms of tuberculosis.

The opinion was expressed that consumptives in an advanced stage of the disease should be prevented from entering South Africa. Twenty years ago consumption was practically unknown in South Africa, but it had now become a serious danger.

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