with increased vocal resonance and prolonged expiratory murmur; no mucous rales; temperature 100; pulse 94; respiration 24.

Diagnosis: incipient tuberculosis. I at once gave her inhalations of chlorine, followed by hot air, and air medicated by menthol and eucalyptol, as in the former case. This was repeated daily, and on the second and third days with the addition of hypodermic injections of m. x of iodine solution.

After the first two injections I substituted the chloride of gold and sodium for the three following days, then on alternate days until the temperature became altogether sub-normal.

The effect of treatment upon the temperature in this case is worthy of notice. On referring to the chart it will be seen that the first day in which no injection was administered the inhalation treatment had no immediate effect upon temperature, which remained throughout at 100°. The second day, at 10 a.m., it was still 100°, but dropped immediately after the treatment to 99°, the effect no doubt of the hypodermic injection. By the next morning the temperature had risen a little, but again dropped with the injection. The like result attended the use of the chloride of gold and sodium; and throughout, whenever the temperature was above normal before treatment, the administration of the hypodermic injection invariably had the effect of reducing it.

As marked upon the chart, during the last seven days of treatment, the temperature was never above normal, and usually below 98°; the pulse was reduced to 80; respiration 19. She had a good appetite and felt well. The odynphagia had also passed away.

KOCH'S TREATMENT OF TUBERCULOSIS.

BY PROF. R. RAMSAY WRIGHT.

Communicated from Berlin to the University of Toronto.

My last letter was intended to give you a picture of the revulsion in Berlin against the Koch cure, both among the members of the medical profession and the public. I indicated, in a recent letter to the Vice-Chancellor, that in spite of the numerous communications with favorable results from distinguished clinicians all over the country, the attitude in Berlin still remains decidedly "anti-Koch." There are even whispers of a proposal in parliament to forbid the use of the lymph, but it is obvious that such a proposal can only be intended for strategic purposes, for there are too many enthusiastic encomiums from capable men to allow it to be entertained for a moment. In my next letter I may endeavor to summarise these, but I shall devote the present one to a topic of greater scientific than practical interest—the nature of the poisonous substance produced by the tubercle-bacilli. This forms the subject of a communication to the last number of the *Deutsche Medicinische Wochenschrift*, by Dr. Theodore Weyl, a physiological chemist who has distinguished himself in the new field of work which has recently been opened out on the border-land of organic chemistry and bacteriology.

The paper is of special interest to me, as it discloses some further points with regard to the nature and mode of preparation of the mysterious lymph.

Prof. Koch gave Dr. Weyl, a year ago, for further examination, a product which he had obtained in the following way from about 500 tubercle cultures on glycerine-agar. The cultures were scraped off the agar and treated with warm dilute sodic hydrate. A turbid yellowish mixture resulted, in which small white flakes were suspended, but this stiffened when slowly cooled into a turbid jelly, consisting of two layers, the lower opaque one containing the flakes. These layers were carefully separated, when it was found that the white layer evidently was formed of envelopes of the tubercle-bacilli, for it reacted to stains in exactly the the same manner as the outer case of the bacillus, taking up carbolic fuchsin slowly, but not parting with it again to 3 per cent sulphuric acid.

The clearer jelly, on the other hand, evidently contained the protoplasm of the tubercle-bacilli, and it was possible to precipitate from it, by dilute acetic acid, a substance not soluble in excess of the acid, which could be purified by alcohol and ether, and obtained in the form of a white powder. The reactions appear to indicate a mucin, but it contains less nitrogen, and a carbo-hydrate is not split off when it is heated with 3 per cent sulphuric acid. As it contains sulphur, it is obviously not related to the myko-