

and disagreeable stagnation of secretory products in the lungs, particularly in cases of pulmonary tuberculosis. No drug can compare with Heroin in this particular. Cases that have come into the hospital with painful and almost constant cough, with inability to raise the sputum, resulting in fetid breath and more or less dyspnea, have been almost immediately relieved of pain, and the expectoration rendered freer, with decrease in the dyspnea, by the administration of Heroin in doses of one-twelfth grain three times daily.—*Boston Medical and Surgical Journal*, February 22, 1900.

## Progress of Medical Science.

### MEDICINE AND NEUROLOGY.

IN CHARGE OF

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#### SERUM DIAGNOSIS OF TYPHOID FEVER.

William G. Savage, in the *Clinical Journal* of May 2, 1900, says that the so-called Widal test depends upon the clumping and cessation of movement in a broth culture of the typhoid bacillus when seen in a hanging drop. We cannot say in every case where clumping or cessation of movement occurs that the patient from whom the blood was taken is suffering from typhoid fever. Sometimes the bacillus typhosus in a broth culture will clump spontaneously. This source of error is easily eliminated by examining the culture before the serum is added. The cause of this spontaneous clumping is not known. Another source of error is where an examination is being made for suspected typhoid and the disease may be either influenza, anemia, or some other condition easily confounded with it. In such cases the patient may have had typhoid fever years before. It is claimed that the Widal test may be obtained years after the infection. Errors in such cases are difficult to avoid.

Normal serum, if diluted slightly, say one in ten, may in certain cases cause some clumping. If the serum be further diluted and again examined with typhoid broth, these changes do not take place. The writer believes that if the serum be sufficiently diluted, clumping with normal blood never takes place. A dilution of one in thirty or one in fifty, or even higher, is necessary to prevent failures from