

hepatic cells was discovered on microscopical examination. It is expressly indicated that in none of the 7 cases did suppurative peritonitis exist. Thiercelin and Jayle then examined the liver from a case of death from hæmorrhage six hours after operation for a ruptured extra-uterine foetal cyst. The liver was absolutely free from fatty changes. But in the liver of a child that died a week after an operation for congenital dislocation of the hip, acute fatty changes were discovered. The same condition was seen in the liver of a man dead from septicæmia due to phlegmonous inflammation of the larynx. Other evidence is brought forward to show that in all the above cases the liver is infected by streptococci. Cirrhosis, etc., predispose greatly to this infection after laparotomy.—*Archives of Gynecology*.

SUBNORMAL TEMPERATURE IN THE HUMAN BODY.

—Subnormal temperatures are considered to be more frequent than was formerly supposed. The histories of the Medical Clinic of Kiel have been searched for the past fourteen years, with the result that over four hundred cases of subnormal temperature were discovered. It is the custom in this hospital to take the temperature of a patient free from fever between six and seven in the morning, and in the evening between five and six, while the usual rule is to take the temperature of fever patients every two hours. The thermometers were tested every three months, and the temperatures were uniformly taken in the rectum. From experimentation upon two hundred patients suffering from skin and venereal diseases, but without fever, the average minimum subnormal temperature was found to be 36.6° C. between six and seven o'clock in the morning, and 36.5° C. during the hours of five and six in the evening. A temperature below 36.5° must therefore be considered subnormal. A number of interesting cases are cited belonging to the following classes: 1. Subnormal temperature after direct deprivation of heat. A drunken man, aged twenty, fell into the water in winter. On removal his temperature was found to be 32.3° C., which quickly returned to normal. 2. After severe loss of bodily fluids, as in severe diarrhœa. 3. In chronic anæmia, cachexias, and conditions of inanition. Of one hundred and thirty cases of uncomplicated carcinoma, fifty-four showed subnormal temperatures. 4. By severe disturbances of circulation, as in a case of mitral stenosis and anasarca, in which for twelve days there was a subnormal temperature. 5. By various diseases of the central nervous system. Numerous cases are here cited. 6. After irritation of the sensory nerves; also in neuroses of a vaso-motor origin, as 'after wounds, gall and renal colic, etc. 7. By wide-spread lesions of the skin, as in scleroma and extensive areas of

burning. 8. In feverish patients, both during the course of the fever and in the stage of deferescence of the fever. 9. In the action of certain poisons, including in this class some poisons which may be produced in the body itself. An old man took sulphuric acid with suicidal intent, and then threw himself into water at a temperature of 37° C. The temperature was found to be 31° C., and was undoubtedly largely due to the action of the acid.

A reduction in temperature under 33° is not remarkable, as thought by Wunderlich. The significance of a marked subnormal temperature is not, therefore, necessarily ominous. A very unfavorable prognosis should be given in cases of cachexia and marasmic conditions when a continuous low temperature is present, as this often precedes a fatal termination.—*Rev. of Med.*

A REMEDY FOR WHOOPING-COUGH.—Early in May of the present year I received, by the kindness of Schering & Glatz, a sufficient quantity of formalin to thoroughly test it under various conditions. The results proved beyond doubt its remarkable antiseptic properties. Its action as a general antiseptic I shall not dwell on, but desire to call attention to conditions where it showed peculiar and valuable characteristics, especially in whooping-cough.

There is probably no disease of childhood so discouraging and intractable, and especially when it appears in juvenile institutions, so persistent in its development of new cases among the uninoculated. On the 15th of June, whooping-cough being epidemic among the children at the Crittenden Home, near this city, I was requested to treat them. There were thirteen cases, in all stages, when the treatment given below was commenced. The patients were all placed in a closed room and a one per cent. solution of formalin was sprayed from an ordinary hand bulb atomizer for ten minutes three times a day, the spray being thrown above the heads of the patients, saturating the air and inhaled by them.

A marked improvement was noted within two days, and after two weeks' treatment all were well and no new cases have developed.

In age these cases ranged from three months to four years, with one exception, a girl of about fourteen, whose duty it was to operate the spray.

It was with this last case that the result was most marked. Previous to the use of the spray, the paroxysms had been so violent that she would rush to the open air and cling to some support, and cough until relief would come through sheer exhaustion. On the fourth day of the treatment the cough had so modified that only one or two comparatively mild paroxysms occurred, and after the fifth day none at all.

About the 20th of August, I treated fifteen