for hours, and even days, with severe nervous collapse. Heat and cold indisputably influence the spread of the disease, for cholera requires a hot and moist atmosphere for its maintenance.

The Present Outbreak.—The present outbreak started from Srinagar in Kashmir, traversed Afghanistan, reached Russia, and was carried by emigrants to Hamburg and Antwerp, and so to England. In its course the disease had to cross wide deserts, and almost uninhabited steppes, and as the disease appeared in Kashmir in May, the rapidity of its progress was very great. An explanation seems necessary to account for the absence of the disease in England for so many years, considering the increased facilities for travel.

Impure Water.—Impure water in itself never causes cholera. It may produce a severe attack of diarrhœa, which may even prove fatal, but unless the water be contaminated with the cholera poison, it will never generate *de novo* a case of cholera. Cholera begets cholera, just as typhoid fever follows typhoid fever, and only the mixture of the poisonous discharges with the drinking water can possibly carry the disease.

Insanitation.—Cholera has been called a "filth" disease, but this definition is inaccurate, for it conveys an impression that cholera only attacks those whose habits are dirty, or who neglect the recognised laws of sanitation. The utmost disregard of all the laws of hygiene will not originate cholera any more than it will scarlatina or small pox. The disease, when once it has gained a footing, is naturally more destructive amongst those who live in the midst of defective hygienic surroundings, but this is equally true of every infectious disease.

Common Poisons and their Detection.

By H. Belcher Thornton, F.C.S.
Author of "How to Analyse," &c.

Chapter IV.—Ammonia.

(Continued from page 654.)

Ammonia, commonly called "Hartshorn," has been proved to be the cause of several deaths by accident or design. It may occur either as a gas, liquid, or combined with other substances in the solid form, as in sal-ammoniac or the carbonate of commerce.

Why does the **Bracket-Patent** Water Condenser give such general satisfaction? Because all impurities are removed and the Apparatus is simple, perfectly automatic. and quite reliable. Price lists post free.—JOHN A. GILBERT & Co., Sole Manufacturers, 4, Mount Pleasant, Gray's Inn Road, London, W.C.

Its pungent and irritating odour is well known.

It is being constantly evolved into the atmosphere as a product of putrefaction.

Its gaseous form may be liquified under pressure or by the application of intense cold.

A remarkable case is reported by Sir. R. Christison, M.D. :—

"A young man who had acquired a strange habit of chewing the solid carbonate of the shops, was seized with great hæmorrhage from the nose, gums, and intestines. His teeth dropped out, wasting and hectic fever ensued, and although he was at length prevailed upon to abandon his prenicious habit, he died of extreme exhaustion after lingering several months."

Professor Orfila injected 60 grains of a pure solution of ammonia into the jugular vein of a dog. Immediately the whole legs were spasmodically extended, at times convulsions occurred, and the animal died in ten minutes.

The action of Ammonia upon the human body appears to be, to excite the muscles and destroy the functions of the nerves. The vapour destroys life by its inflammatory action upon the larynx and lungs. Fatal results may transpire weeks and months after the actual taking of the poison, by its serious effects upon the internal structure, and persons after lingering sometime, may succumb to the local injury to throat and larynx.

According to one authority, it causes, when swallowed, excessive muscular weakness, slow breathing, violent action of the heart, and tetanic spasms.

Amongst the symptoms, are the following :—

A caustic and acrid taste whilst swallowing.

Corrosion of the mucous membrane of the mouth.

A sensation of intense heat in the throat, extending downwards to the pit of the stomach.

Vomiting, in which blood and mucous membrane are sometimes found.

Cold and clammy skin.

Great pain in the abdomen.

The pulse quick and feeble.

Swelling of the lips, tongue, and throat.

Agonising pains before death.

Upon examination after death, the bronchial tubes and glottis are found to be inflamed; the lining membrane of the stomach corroded, and even perforated, and its contents covered with blood.

The usual tests for Ammonia are the formation of a thick white vapour when a glass rod dipped in strong hydrochloric acid is brought into contact with it; the distinctive odour; its effects upon moistened red litmus paper—changing the colour to blue—and the yellow precipitate which is given in the presence of hydrochloric acid upon the addition o bichloride of platinum.

previous page next page