

A NEW INCISION IN CÆSAREAN SECTION. (*American Journal of the Medical Sciences*).—Fritsch calls attention to the advantages of a transverse cut across the uterus at the fundus, and points out that the anatomy of the vessels of the uterus is such that bleeding is best controlled when the uterus is incised transversely to its long axis at the fundus. At the level of the tubes and ovaries the incision should be longitudinal to secure the vessels most readily.

#### HYGIENE.

ADDITION TO QUARANTINE REGULATIONS TO BE OBSERVED AT PORTS AND ON THE FRONTIERS OF THE UNITED STATES—DISINFECTION BY FORMALDEHYD GAS. (Secretary, Treasury Department, Washington, D.C., Public Health Reports)—Paragraph 8. *Disinfection of Steerage, Forecastle, and Cabin of Vessels by Formaldehyd Gas.* After the removal of the bedding, carpets, and furnishings, all apertures being tightly closed, the steerage, fore-castle and cabin of a vessel may be disinfected by formaldehyd gas in a percentage of not less than 2 per cent. per volume strength, the time of exposure to be not less than twelve hours.

The gas may be generated by one of the following methods:—

- (a) From methyl (wood) alcohol by means of special lamps, using not less than 600 grams (750 cubic centimetres,  $1\frac{1}{2}$  pints) of methyl alcohol for each 25.5 cubic metres (1,000 cubic feet) of space, the time of exposure to be not less than twelve hours. Lamps used for generating formaldehyd gas from methyl alcohol should change not less than 1 litre (1.01 quarts) of the alcohol within an hour.
- (b) From an aqueous solution, containing 40 per cent. of the gas, known under the names of formalin, formol, or formalore.

The gas is best evolved from these solutions by the addition of from 10 to 30 per cent. of a neutral salt, preferably calcium chloride or sodium nitrate, heating the mixture in a special boiler. One litre of a 40 per cent. solution of formaldehyd gas will evolve about 1,425 litres (50.1 cubic feet) of the gas at 20°C. (68°F.), and will be sufficient for 71 cubic metres (2,505.5 cubic feet) of space.

- (c) From the substance known as trioxymethylene by means of a special lamp, not less than 2 grams (30 grains) to be used for each cubic metre (35.29 cubic feet) of space. After the disinfection, the formaldehyd gas should be neutralised by ammonia gas, evolved from ammonia solution by heat, or by evaporation from

ammonia solution sprinkled upon the floor.

*Note.*—After method (a) 1 litre (1.01 quarts) of ammonia solution for each 1,000 cubic centimetres (1.01 quarts) of wood alcohol used are necessary for neutralisation; after method (b),  $1\frac{1}{2}$  litres (1.26 quarts) of ammonia solution for each litre (1.01 quarts) of formalin; after method (c), 1 litre of ammonia solution for each 150 grams (5 ounces) of trioxymethylene.

Paragraph 9. *Disinfection of clothing, bedding, upholstered furniture, articles of leather, &c., by formaldehyd gas.*—The ordinary steam disinfecting chamber, provided with a vacuum apparatus and special apparatus for generating and applying the gas, is employed. The gas should be applied in a dry state, not less than 20 per cent. per volume strength, the time of exposure to be not less than one hour. The clothing, &c., should thereafter be exposed *in situ* to an equal amount of ammonia gas generated by the special apparatus attached to the chamber, using 1 litre of ammonia solution to each litre of formalin, or compressed ammonia gas may be used.

*Note.*—The apparatus is described and illustrated in Public Health Reports, United States Marine Hospital Service, January 29, 1897, Vol. XII, No. 5.

NOTES ON PRACTICAL SANITARY SCIENCE (By WILLIAM H. MAXWELL, *The Sanitary Record*).—Mr. Charles Mason, A.M.I.C.E., Surveyor, St. Martin's-in-the-Fields, mentions that in his district, a mixture of manganate of soda, sulphuric acid, and water is used for street-watering in the following proportions:—

Manganate of soda	... 1 lb.	} To 100 gallons of water in the van.
Sulphuric acid	... $\frac{1}{2}$ pint	
Water	... 1 gallon	

The mixture is said to give a feeling of increased freshness to the atmosphere.

In busy thoroughfares, the watering is done early in the morning previous to sweeping; after sweeping; and during the day, as required.

Referring to scavenging, street cleansing, and watering, Mr. Maxwell remarks: "The increased difficulty of getting this work *efficiently* and satisfactorily executed under the contract-system makes it most desirable that it should be performed by the local authority with their own officers and staff. On this question Mr. Boulnois, City Engineer of Liverpool, writes: "It is, perhaps, true that this work may be done by contract at less actual cost to the rate-payers; but all public work should be done in the best possible manner, irrespective of cost,—thoroughly, but without extravagance; and the result of such work, especially where it affects the cleanliness and the appearance of a town, soon fully repays any moderate extra cost that may thus have been incurred, irrespective of the enormous benefit that is conferred upon any community by the reduction of disease and the death-rate by a proper attention to such necessary sanitary work."

**EARTH CLOSETS AND DISEASE-GERMS.** (*The Sanitary Record*).—The bacilli of cholera and typhoid, according to Dr. Sinnhuher, retain their vitality for several weeks or even months in moist pulverised garden-soil, but the incorporation therewith of quicklime destroys them speedily. 10 per cent. of fresh quicklime should be used.

Amongst other subjects discussed at the recent Sanitary Institute Congress at Leeds were the following (*The Sanitary Record*):—

1. "THE PRESERVATION OF SIGHT IN INFANCY AND EARLY LIFE." Mr. H. Bendelack Hewetson, F.L.S., of the Leeds General Infirmary, said: "It is possible, by careful washing and the application of a lotion of 1 in 5,000 of perchloride of mercury, more particularly when disease was suspected in the mother, to entirely destroy the micro-organisms which developed into the disease called purulent ophthalmia. Every infant should have its eyes washed in the way mentioned. There was a time," remarked Mr. Hewetson, "when there existed in the United Kingdom alone upwards of 30,000 persons who were blind through the ravages of this disease. The dangers to the eye, from dirty insanitary surroundings in industrial and work-house schools and the like, from painted toys, darning needles, scissors, &c., in the hands of children and their nurses and the slipping of forks while being used in untying bootlaces or a piece of string, were pointed out."

Mr. Hewetson was strongly of opinion that every child, before commencing its educational career, should have its eyes examined by an ophthalmic surgeon, and that it ought to be incumbent upon all schools to refuse to admit a pupil who did not bring a certificate as to the state of the eyes, ears, and teeth.

2. **THE EDUCATION OF THE SPEAKING VOICE.**—Mr. Arthur Burrell, M.A., in this paper said: "Voice power is developed and attained by ventilation of rooms, easy clothing, cleanliness and gymnastics. Correct rules for inhalation and exhalation are necessary. Vowel and word exercises to be said, sung, and whispered should follow. Finally comes the reading lesson, in which one pupil only had a book, and is stopped by his fellow pupils when a word was missed. All this is preliminary work to the higher study of reading and speaking."

Mr. Byles drew attention to the opinion of a medical expert who had investigated the subject in Bradford, which was to the effect that consumption might be completely eradicated by children being scientifically taught to breathe properly pure air.

3. On the subject of "METHODS OF DISINFECTATION," Dr. Cameron said: "Roughly speaking, there are two classes of disease which have specially to be attacked. In diseases like typhus and small-pox it had always appeared that the most important thing to attack was

the patient's garments. At Leeds, the precautions taken in isolating families, persuading them to be vaccinated or revaccinated, and dealing with their clothes, operated enormously in the direction of limiting the spread of small-pox." Dr. Cameron was not prepared to say the fumes of sulphur did any good, but he was quite certain that they did not do any harm.

One advantage which resulted was that it created such a horrible stink that the people had to keep the windows open for a day or two before they could occupy the house again. In the second class of diseases, such as typhoid, one of Dr. Cameron's difficulties had been as to what chemical substance should be used to destroy the microbes in a case of typhoid.

Dr. Henry Kenwood addressed the Conference on the subject of the disinfection of rooms by formic aldehyde vapour. "By experiments," he remarked, "it could be shown that surface-disinfection by sulphurous acid gas was not so reliable as that by chlorine, vaporised phenol, or a spray of perchloride of mercury. But the satisfactory results which had been obtained by experiments from the vapour of formic aldehyde as a disinfectant of rooms were very striking and warranted due consideration at the hands of medical officers of health. When the atmosphere was saturated with, or charged with from  $\frac{1}{2}$  to 2 per cent. of, the vapour, the disinfection of all surfaces was complete and rapid; and the vapours possessed a certain though variable amount of penetrating power into loose fabrics, especially when these were dry. The necessary apparatus cost about £18, and the disinfection of an ordinary sized room would cost about 2s. 6d. Half an hour was required to get up the necessary pressure, and then the vapours must be allowed to escape into an ordinary sized room for half an hour, and for an hour in the case of a very large room."

C. BANKS, M.D., D.P.H.

#### SPECIAL SENSES.

**HEREDITARY TENDENCY TO CATARACT.** (*Centralblatt für praktische augen heil kunde*, July and September 1897).—It is well-known that, besides cataracts which are congenital, cataracts are also met with in families, the members of whom show a tendency—generally hereditary—for the disease to appear at a certain age. Such cataracts may be hard, senile in form, although met with at quite an early age. The cataracts referred to, as well as congenital forms, may in fact be looked upon as due to a hereditary influence, making itself felt at different periods of the individual's existence. In some this occurs before birth, in others during childhood, in some about 20 years of age, while in advanced life cataract is not uncommon among several members of the same family. The fact, that senile