

and 69. From tetanus 25 individuals died. The general mortality during the week was at the rate of 27.1 per 1,000 per annum.

HEALTH OF BOMBAY.

DURING the week ending Tuesday, 7th October, the total number of deaths registered was 499, being three more than in the previous week, 99 more than the week ending 9th October 1883, and 71 more than the mean of the corresponding period in the preceding five years. During the week 326 births were reported in the different districts of the city. The rate of mortality per 1,000 of population per annum was 29.59, calculated on the increase of population since 1881. There were 95 deaths from remittent fever, 21 less than the previous week, and 31 more than in the same period last year. The deaths from diseases of the respiratory system, diarrhoea, and dysentery were last week 79, 29, and 14 respectively, as compared with 34, 18, and 10 in the same time last year. Five deaths from cholera were registered last week as compared with 21 in the week previous.

During the week ending Tuesday, October 14th, the total number of deaths registered was 509, being 10 more than in the previous week, 129 more than the week ending 16th October 1883, and 95 more than the mean of the corresponding period in the preceding five years. During the week 304 births were reported in the different districts of the city. The rate of mortality per 1,000 of population per annum was 29.90, calculated on the increase of population since 1881. There were 100 deaths from remittent fever, 5 more than the previous week, and five more than in the same period last year. The deaths from diseases of the respiratory system, diarrhoea, and dysentery

were last week 83, 30, and 16 respectively, as compared with 52, 21, and 8 in the same time last year. Ten deaths from cholera were registered last week as compared with five in the week previous.

During the week ended on Tuesday, 21st October, the number of registered deaths was 516, being 7 more than in the previous week, 147 more than the week ending 23rd October 1883, and 100 more than the mean of the corresponding period in the preceding five years. During the week 296 births were reported in the different districts of the city. The rate of mortality per 1,000 of population per annum was 30.16, calculated on the increase of population since 1881. There were 119 deaths from remittent fever, 19 more than the previous week, and 58 more than in the same period last year. The deaths from diseases of the respiratory system, diarrhoea, and dysentery were last week 64, 24, and 16 respectively, as compared with 56, 30, and 6 in the same time last year. Five deaths from cholera were registered last week as compared with 10 in the week previous.

HEALTH OF MADRAS.

FROM the 27th ultimo to the 3rd instant, 2 Europeans, 5 East Indians, 9 Native Christians, 227 Hindus, and 29 Muhammadans died in Madras, making a total of 272 persons. The average of the corresponding week for the 10 previous years was 284. The deaths are thus classified: 4 from small-pox, 1 from measles, 72 from fever, 29 from dysentery, 16 from diarrhoea, 32 from cholera, and 118 from other diseases. The death-rate in the week under notice was 35.4 per 1,000 per annum. The mean of the ten previous years was 36.9 per 1,000 per annum.

ABSTRACTS & EXTRACTS.

ENTOZOA OF INDIAN FISHES.

ABOUT the middle of 1883, when a wide-spread panic existed in Madras about the unwholesomeness of sea-fish as an article of diet owing to the existence of certain parasites in them, Government, on the recommendation of the Board of Revenue, directed an inquiry to be made regarding the supposed fish disease. The Sanitary Commissioner of Madras and Dr. Bidie examined all the more common kinds of fish which are

sold in the bazars, and submitted the parasites found to Dr. Cobbold. This eminent helminthologist declares his belief that none of the parasites found are injurious to man, and that the fish scare is therefore groundless.

The following table gives the particulars of the fish examined by the Sanitary Commissioner, Dr. Furnell:—

Scientific name.	Tamil name.	Parasite.	Nature.
<i>Sub-class 1—Teleostei.</i>			
ORDER I—ACANTHOPTERYGII.			
<i>Fam. 3. Percidæ.</i>			
1. Serranus Malabaricus (Sea Perches) ...	Punni Kalava ...	None.	Scolex of Tetra-rhynchi.
2. Lutianus Quinquilineatus ...	None ...	Do.	
3. Lates Calcarifer (the "Cockup" Nair fish).	Koduva ...	Entozoa ...	
5. Serranus Undulosus ...	Kalava ...	Free.	
6. Serranus Bontoo	Do.	
<i>F. 4. Pristipomatidæ.</i>			
1. Diagramma Pictum (Punctatum)	None.	
2. Synagris luteus ...	Cundil ...	Free.	
<i>F. 5. Mullidæ ("Red Mulletts").</i>			
1. Upenus Indicus (Several specimens examined.) ...	Nagarai ...	None.	
<i>F. 7. Squamipinnes.</i>			
1. Drepane punctata ...	Toutti ...	Entozoa ...	} Cystic and scolex forms of Tetra-rhynchus.
2. Ehippus Orbis ...	Theratai ...	Do. ...	
3. Scatophagus argus ...	Sipili ...	None.	
<i>F. 10. Trachinidæ.</i>			
1. Sillago sihama (Sting fish) ...	Kizhungan ...	Free.	

Scientific name.	Tamil name.	Parasite.	Nature.
<i>Sub-class 1—Teleostei—(Continued.)</i>			
ORDER I—ACANTHOPTERYGII—(Continued.)			
<i>F. 11. Scianide.</i>			
1. Otolithus ruber	Punnah	Several	Echinorhynchi.
2. Corvina Carutta	Shothu Kathalai	Do.	{ Echinorhynchus. Three nematoids. Ova of echinorhynchus.
<i>F. 12. Polynemida.</i>			
1. Polynemus Indicus (species of Mango fish).	Tahlum Kala	Free.	
2. Polynemus Sextarius (Mango fish) (Several specimens examined.)	Kathalai Kala	Do.	
<i>F. 13. Sphyreanida ("Barracudas").</i>			
1. Sphyræna Jello	Kadal Ollan	Worm	Contained a long, soft, white worm in stomach, which was unfortunately thrown away before examined. Bu: being in the stomach it was most probably merely food of the fish.
<i>F. 14. Trichiurida.</i>			
1. Trichiurus Savala	Olai Valai	Entozoa	Several nematode worms.
<i>F. 15. Scombrida ("Mackerel family").</i>			
1. Cybium Commersonii (Seer fish)	Mavalachi	None.	
2. Scomber Microlepidotus ("Mackerel family").	Kaanang Kaluthai	Free.	
3. Stromateus Niger (Black Pomfret). (Many specimens of the above were examined).	Karappu Vavvall	Numerous	Cyst containing minute filaridæ. Some flukes and echinorhynchi.
6. Stromateus atous (Pomfret, white.)	Vella Vavvall	Several	Flukes and echinorhynchus.
<i>F. 16. Carangida (Horse Mackerels.)</i>			
1. Caranx Malabaricus	Paarai	None.	
2. Equula Daura	Kara Podi	Do.	
3. Caranx Nigripennis	Venni paarai	Entozoa	Various small white tadpole-shape entozoa. Tetrarhynchi.
4. Lactarius delicatulus	Suthumbu	Do.	do.
5. Caranx Talamparoides	Thalam paarai	Do.	do.
6. Caranx Gallus	Mail paarai	Free.	
7. Chorinemus Sanctipetri	Thole paarai	Entozoa	
8. Caranx Rottleri	Koomari paarai	Do.	Same as 3, 4 and 5.
<i>N.B.—In this family were found more entozoa than in any other.</i>			
<i>F. 18. Gobiida (Fresh water).</i>			
1. Gobius giuris (Several specimens examined.)	Ulluvai	No entozoa.	
<i>F. 21. Teuthidida.</i>			
1. Tenthis Java (Several specimens examined.)	Ottah	Free,	
<i>F. 25. Mugilida ("Grey Mulletts").</i>			
1. Mugil cephalotus (Many specimens examined.)	Madavai	None	Very clean fish.
<i>F. 26. Ophiocephalida. (Serpent-headed.)</i>			
1. Ophiocephalus punctatus	Koravai	Do.	
2. Do. striatus	Veraal	Do.	

Scientific name.	Tamil name.	Parasite.	Nature.
ORDER II—ACANTHOPTERYGII PHARYNGOGNATHI.			
<i>F. 1. Pomacentridæ.</i>			
1. Pomacentrus Jerdoni	None.	
<i>F. 3. Chromides.</i>			
1. Etroplus suratensis (Fresh water) ...	Chethai Kendai ...	Do.	

ORDER III—ANACANTHINI.

Vertical and Ventral Fins without Spinous Rays.

<i>F. 2. Pleuronectidæ. Sole family (Flat fishes).</i>			
1. Psettodes Eurumei (Several specimens examined.)	Pothu ...	Entozoa ...	Number of small nematodes.
2. Cynoglossus Potous (Several specimens of both the above were examined; they were all free.)	Naak meen (Tongue fish).	Free.	

ORDER IV—PHYSOSTOMI.

<i>F. 1. Siluridæ (Cat fishes).</i>			
4. Plotosus Canius	Araal	Entozoa ...	Nature unknown.
<i>F. 1. Scopelidæ.</i>			
1. Saurida tumbil... ..	Kadal Ooloovai ...	Free.	
<i>F. 5. Scombresocidæ (Flying-fish family).</i>			
1. Belone Caudimaculata	Kolachi	Do.	
<i>F. 7. Cyprinidæ.</i>			
1. Barbus carmaticus	Chethai Kendai ...	Do.	
<i>F. 8. Clupeidæ (Herring family).</i>			
1. Clupea Toli (the Hilsa)	Oollam... ..	Entozoa ...	Several nematodes.
2. Chaloessus nasus	Muthu Kendai ...	Free ...	A beautiful clean fish.
3. Engraulis mystax (an anchovy) ...	Porivai... ..	Do.	
4. Clupea kowal	Nonalai	Do.	
5. Clupea Fimbriata	Poondoovrinjan ...	Do.	
6. Pellona novacula	Vengun... ..	Do.	
8. Chanos Salmoneus	Talee Kendai ...	Do.	Nearly all this family much used as food were free of entozoa.
<i>F. 9. Chirocentridæ.</i>			
1. Chirocentrus dorab	Moolloovalai ...	Entozoa ...	Several flukes (Trematoda) in flesh, and flesh here and there contain- ing ova.
<i>F. 12. Murenidæ (Eel family).</i>			
1. Muraenesox telabon (a long Snake-like fish).	Kulim Pamboo ...	Entozoa of sorts.	Contained a large number of nematode worms well marked with beautiful annular rings.

ORDER VI—PLECTOGNATHI.

Sub-class 3—Chondropterygii.

Order I, Plagiostomata—1st Sub-order, Selachoidi.

<i>F. 1. Carchariidæ (Shark family).</i>			
1. Carcharias Bleekeri (Several specimens examined.)	Sora (Pal) ...	Free.	

Scientific name.	Tamil name.	Parasite.	Nature.
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ORDER VI—PLECTOGNATHI.—(Continued.)

Sub-class 3—Chondropterygii.

Order I, Plagiostomata—1st Sub-order, Selachoidi.

		Sub-order, Batoidei.		
F. 2. <i>Rhinobatidæ</i> (Rays).				
1.	Rhynchobatus lævis	Pandanjan ...	Free.	
F. 5. <i>Trygonidæ</i> (Sting Rays).				
1.	Trygon Imbricata	Tirukkai ...	Entozoa ...	Four cestodes.
F. 6. <i>Myliobatidæ</i> , Devil fishes (Sea Devils).				
1.	Rhinoptera species	Tirukkai ...	Do. ...	Nematodes and flukes.

Dr. Bidie found the following fish-parasites in the fish which he examined :—

Fish in which found.	Where found.	Scientific name.
Caranx sp.	Abdomen ...	Anthocephalus giganteus, <i>Dies</i> and Anthocephalus hippoglossi vulgaris, <i>Bellgh.</i>
Do.	Œsophagus ...	Anthocephalus giganteus, <i>Dies.</i>
Arius thalassinus	Do. ...	Anthocephalus elongatus, <i>Rud.</i>
Equula caballa	Do. ...	Pterobothrium macrorurum, <i>Dies.</i>
Cybbium guttatum, <i>Seer</i>	Do. ...	Pterobothrium heteracanthum, <i>Dies.</i>
Synagris luteus	Do. ...	Pterobothrium crassicolla, <i>Dies.</i>
Trichiurus Savala	Do. ...	Pterobothrium crassicolla, <i>Dies.</i>
Do.	Abdomen ...	Anthocephalus n. sp.
Stromateus niger, <i>Pomfret</i>	Œsophagus ...	Pterobothrium heteracanthum, <i>Dies.</i>
Sciæna sp.	Do. ...	Pterobothrium n. sp.
Do.	Intestines ...	Pterobothrium crassicolla, <i>Dies.</i>
Drepane punctata	Œsophagus ...	Pterobothrium heteracanthum, <i>Dies.</i>

SURGERY.

THE PROPER USE OF THE CATHETER.—The use of the catheter is in itself, to some extent, an evil; a very slight one if properly conducted, capable of becoming considerable in careless or unwise hands. A catheter is, therefore, only to be employed when the evil which is to be removed by its means may be regarded as more grave than that which is incurred by using the instrument; and such conditions as these are daily presented in practice. Let, then, every instrument employed be that which can be most easily passed, and is made of the least irritating material; always of course consistently with the efficient attainment of the object in view. Thus metallic or rigid instruments, as a rule, should only be used when those which are soft and flexible have failed; and for whatever purpose, they should not be larger than the needs of each case demand. By such gentle treatment a very considerable improvement in most cases is certainly attainable; and in the course of time the greatly exaggerated antipathy which widely exists to the use of instrumental treatment in the bladder will gradually but certainly disappear. I have one more caution to utter in regard of habitual catheterism, for those elderly patients whose circumstances have been above referred to, which is of great importance. When the bladder has for a long period of time been over-distended—the patient's condition having been overlooked for months, or even for years, in consequence perhaps of catheterism having been forbidden—it is, at this advanced period of the case, a serious matter to resort to it. Rashly undertaken, great as is the relief at first experienced, symptoms of fever—"urinary fever," as it is, I think, properly termed—often appear in a few days; cystitis occurs, catheterism is required more frequently, the urine becomes highly purulent, the powers of life feeble, the tongue dry, nourishment is refused, and the patient sinks—usually in about three or four weeks from the first employment of the instrument. If a necropsy be made, almost invariably the ureters will be found dilated on one or both sides; one of

the kidneys diminished in bulk, and wasted, the other enlarged, inflamed, and perhaps the seat of numerous deposits of pus. It is said that such fatal histories following catheterism for long-continued distension of the bladder have occurred in individuals whose urinary organs, when examined after death, are found free from organic disease. Far be it from me to state that such a sequence of events is impossible; but it must be one of great rarity. No example has occurred within the range of my experience. When a patient, whose vesical functions have been long impaired requires artificial relief, the best chance of saving him is to enjoin at once the recumbent position in a warm and equable temperature, usually in his bedroom, in order that the skin may act freely, and that no locomotion may be possible. The catheter should be used skilfully and with great gentleness; not at first emptying the bladder completely, but always removing the instrument when pain is felt, as it often is before that condition is reached; and it must be applied again as soon as relief is manifestly required. I can scarcely over-estimate the value of these precautions, nor advise too strongly the abstinence from movement and exposure of all kinds for a period of a few weeks in these particular cases. We may thus sometimes succeed in prolonging life, even at a very advanced term, and at the same time avoid the groundless but injurious opposition which often manifested, as we have seen, to the use of the catheter, the want of which at an early period in the patient's history, and not the late recourse to it, has been the real cause of death in almost every one of the fatal cases described.—*Sir Henry Thompson's Lectures.*

TREATMENT OF GONORRHOEA BY OPEN-WIRE BOUGIES.—Dr. D. C. McVail uses a little contrivance made of three wires soldered together at one end, and bent into the shape of a sound, in the treatment of gonorrhoea. The instrument is intended to keep separate the inflamed mucous membrane of the urethra, and also to allow the discharge to drain freely away and not lie in the passage and give rise to renewed secre-

tion. Another form has, instead of the flanged extremity, a short length of catheter-tube attached, and to that a short piece of rubber tube. The solution to be injected is introduced by a syringe, and when quite full the India-rubber tube is compressed by a spring clip, to prevent the escape of the fluid. Within from twenty to thirty minutes the injection will be almost wholly absorbed by the urethral walls, and then the clip may be detached. These instruments are well borne in the urethra, and the patient can pursue his ordinary avocations while wearing them.—*British Medical Journal*.

THE ANTISEPTIC TREATMENT OF WOUNDS IN WAR.—At the late meeting of the International Medical Congress, Sir William MacCormac of London briefly indicated the principles on which large numbers of wounds on the battlefield, and immediately afterwards, might be most effectively dealt with. The manner of dealing by the antiseptic method of the wounded in battle was surrounded by many practical difficulties. From his experience, he might lay down a few principles. It must not be expected to have on the battlefield civil hospitals. Much might be done by proper distribution of men, and by prompt attention, to provide for the immediate wants of the fighting force in front; moving, as quickly and as carefully as possible, the wounded to a place of safety. How far was it practicable to apply antiseptic methods on the battlefield? As a rule, first dressings were not successful. In the Ashantee war the first dressing did not adhere to the wound, as it was creased. He spoke favourably of the triangular bandage, and of iodiform, which promised the best results if mixed with glycerine. He dwelt on the usual requirements of field-hospitals; and observed that in savage wars, owing to the long line of communication and distance from the base, field-hospitals had to be kept up near the fighting line.

EXTERNAL ŒSOPHAGOTOMY.—Dr. Kine read at the Moscow Medical Society an account of a case of a robust man who, while eating hastily, swallowed a solid body, which became arrested opposite the manubrium of the sternum. He saw the patient a week afterwards, and found the Œsophagus very sensitive to pressure, but without any external swelling. Proceeding to perform Œsophagotomy, he found the Œsophagus already perforated, and had therefore only to enlarge the aperture. A piece of bone three centimetres in length and two in breadth, was removed, exhibiting four very sharp edges, and the patient did well. This, the writer states, makes the thirty-fifth recorded case of external Œsophagotomy for the removal of foreign bodies, and of these twenty-nine recovered and six died.—*Centralblatt für Chirurgie*, May 31st.

THERAPEUTICS.

CONDENSED MILK AS FOOD FOR INFANTS.—Mr. N. E. Davies, in the *Brit. Med. Jour.*, May 1884, p. 1027, contributes a letter on the feeding of infants with milk. The author states that if mothers do not suckle their offspring, there is no safe substitute, until the period of teething has commenced, for the natural food of the infant, but cow's milk, and to the extent of rather over a pint a day is healthy sustenance, Swiss condensed milk contains forty per cent. of cane-sugar, which renders it unfit as food for infants; but one brand, The Pure First Swiss Condensed Milk, being unsweetened, is a perfect substitute for pure cow's milk. This is recommended to be diluted, for the first two or three months of infant life, to five times its bulk of warm water, and given to the extent of a tin a day, with the addition of a pinch of sugar of milk to each supply of the food. Great care in keeping the feeding-bottles and tubes clean is essential. [Whether an infant could consume a tin daily is questionable, and the use of the old-fashioned boat-bottle, with a simple nipple, avoids all dangers from the use of foul vibrio-swarming tubes, which resist all efforts to keep properly cleansed.—R. Neale, M.D.] *Lond. Med. Record*.

SCIATICA TREATED BY GALVANISM.—Dr. Stevenson, in the *Lancet*, Jan. 1884, p. 105, reports four cases of sciatica treated by galvanism. The first case was that of a man, aged 45, who had suffered for some three months and had tried several remedies without any relief. Galvanism was then tried. A wet pad of metal and amadou, connected with the

positive pole of a Coxeter's constant current battery, was placed on the abdomen, and held in position by the patient. A carbon disc electrode, covered with chamois leather, connected with the negative pole, was moved gently up and down over the course of the great sciatic nerve. Twelve cells were as many as the patient could bear without giving him severe pain. In a week there was a great relief from the treatment, and after a month's treatment he was cured. The other cases derived similar benefit, the application lasting eight to ten minutes each day at first, then on alternate days, the intervals between the applications being increased as relief was obtained.

SULPHIDE OF CALCIUM IN BOILS AND CARBUNCLES.—Dr. Ringer uses Sulphide of Calcium internally in boils and carbuncles with excellent results. A tenth of a grain of Sulphide of Calcium given every two or three hours, generally prevents the formation of fresh boils, while it lessens the inflammation, and reduces the area of the existing boils, and quickly liquifies the core, so that its separation is much more speedy. Where the skin is not yet broken, and the slow separating core therefore not yet exposed, the sulphides often convert the boil into an abscess, so that, on bursting, pus is freely discharged, and the wound at once heals.

UTILITY OF COCA.—Dr. Hicks, writing in the *New York Medical Journal*, expresses his surprise that this substance is so seldom employed, and enumerates the circumstances under which he has found it highly useful. These are (1) to prevent and relieve fatigue; (2) in back-ache, accompanied by high-coloured urine, with excess of uric acid and urates; (3) in short breathing from weakness of the muscles of inspiration; (4) palpitation, without valvular lesions, due to dilatation, or weakness of the heart-muscle; (5) it renews the vigour of the intellect, and relieves mental exhaustion, rendering the flow of thought more easy, and the reasoning power more vigorous; (6) it dissipates the "blues," leaving the mind calm; (7) it destroys the craving for alcohol, and in small doses is useful in sick headache, and headache resulting from over-exertion; (8) its habitual use as a part of the daily diet conduces to mental cleanness and activity, freedom from fatigue, and sound sleep.

BROMINE AS A DISINFECTANT.—Bromine is much more powerful as a disinfectant than chlorine. Under the name of *bromum solidificatum* this halogen element has been prepared for disinfecting purposes. It consists of 75 per cent. of bromine made up into pastilles of 20 grammes (two-thirds of an ounce each), every such one being sufficient to disinfect an area of 130 cubic feet with its contents. The disinfectant must occupy an elevated position in the room, and should be left there for from six to eight hours, after which the windows may be thrown open.

EUCALYPTUS TREES AND MALARIA.—In a letter to the *British Medical Journal* (Sept. 27), Dr. L. Aitken, of Rome, denies the correctness of a statement that has been repeated over and over again, namely, that the sanitary state of the neighbourhood of that city has been improved by the planting of Eucalyptus trees. Except at Tre Fontane, he says, where the unpaid labour of monks and convicts keeps the trees alive, the experiment of planting the Campagna has proved a costly failure, only three or four per cent. of the trees planted under the conditions attending the plantation of other young forest trees having survived. Even at Tre Fontane the Government has found it necessary to restrict the amount of convict labour which it at first placed at the disposal of the Trappist monks for planting operations, in consequence of the sickness among the warders and convicts. The monks themselves, too, are known still to succumb to malaria, though Dr. Aitken more than hints that the whole truth is not made public, lest it should affect the sale of the Eucalyptus elixir which is prepared at the monastery and adds materially to its revenue. Dr. Aitken does not deny that the deaths from severe malarial fevers have decreased during the last year or two; but apart from the fact that this may be due to fluctuations in the intensity of the malarial poison, he is inclined to attribute any slight improvement which may be claimed quite as much to the necessary subsoil draining and preparation of the ground as to any influence of the young gum trees.