

The commencing salary of a Health Visitor will be about Rs. 75 per mensem with furnished quarters and conveyance allowance, and for a woman with a family to support, the post offers independence, and for a woman of energy and a real desire to do good among her fellow country women, unlimited opportunities of useful service.

May we then appeal to the training schools of the Punjab to look out for such candidates for us and to use their influence with the Indian communities among whom they work, to create a demand for such workers.

In many cases a most desirable arrangement would be for a Health Visitor to be attached to the Out-Patient Department to supervise the work of the nurse dais sent out from the hospital, to keep in touch with all babies born under the auspices of the hospital, and to visit ante-natal cases in the homes, gradually getting in touch with the indigenous dais and drawing them into the control of the hospital, and so on. If Infant Welfare work is to be permanent in this country, it must come about through the demands of the Indian women themselves, and women of the country must gradually learn to carry on the work which has been and is being done so splendidly by missionary-hearted women of other countries.

To this end let us all co-operate, and the future of India's mothers and babies will be bright with promise.

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--- SNAKES AND SNAKE BITES. ---

(By Miss BURKE.)

People dread snakes rightly, for the bite of a poisonous species will deal death, swift, silent and terrible within a short space of time. Europeans however are rarely bitten by snakes.

All poisonous snakes are not deadly, but the common krait, Russell's viper, and the cobra are swift death dealers, and the cobra is one of the commonest snakes in India. One sometimes hears an Indian claim to cure snake bites, this may be so, but one must remember that all snakes are not poisonous, and that a deadly snake does not always make a fatal wound. The snake charmers have a certain dried seed, which they moisten and place on the bite, they have great faith in its curative powers. There are cases known when a poisonous snake has bitten a man without any ill effects, no special treatment having been given him. This proves that poisonous snakes occasionally do not inject their poison when biting.

The following is a general description of snakes.

Snakes are classed among the vertebrates, or animals with backbones and are called reptiles, they are divided into species. On examining the skeleton of a snake it is found to consist of a skull, backbone, or ribs. It is the movement of these ribs which help the snake to move so quickly over the ground,

The skin is covered with scales, and by these scales alone an experienced eye can tell whether the snake is a poisonous one or not.

The scales on the head differ from those on the body and are called "Shields." These shields are divided into Frontal, Præ-frontal, Inter-frontal, Internasal, Parietals, Rostral, etc. In the last mentioned there is a small opening through which the tongue protrudes, without the snake having to open its mouth. On the stomach the scales are called "Ventrals" and near the tail "Sub-caudals." The back of the snake is also covered with longitudinal rows of scales from 13 to 25 in number, the odd row makes a ridge down the middle of the back and is called the "Vertebral Row." The scales on the body are almost always of the same size. The scales of snakes vary in the different species with regard to size, shape, etc.

There are 330 species of known snakes, out of these 69 are said to be of a poisonous kind.

Snakes are of varying lengths, from a few inches to many feet, and are divided into poisonous and non-poisonous. The poisonous ones are divided into "Colubridæ" and "Viperidæ."

Sea snakes are the deadliest of all snakes as their poison is said to be eight times more deadly in effect than that of a cobra. There are 29 species. One peculiarity of the sea snake is that its tail is flattened like an eel's, and the nostrils are situated on the crown of the head, in other snakes the nostrils are on the side of the face. Snakes vary in shape, some are short and heavy bodied, others slender and elongated. The heads in some are narrow and elongated or broad and stumpy, etc. There is variation in the eyes also. Some have large eyes, others small ones. The iris or coloured portion also differs, some are green or golden, others black. The pupil in some species is oval, in others round.

Snakes have teeth, they are fine and sharp, and vary in size and are directed backwards. In the non-poisonous varieties they are in six rows, two in the lower jaw and four in the upper. According to their position they are called "Marginal" and "Palatine." In the poisonous snakes there is no upper marginal row, but only the poison fang. To the experienced eye it is not difficult to make out the marks of the fang on a person bitten.

In the cobra the poison fang when not in use fixes into a depression in the lower lip, and is less than half an inch in length. In the viper, another poisonous snake, when the fang is not in use, it lies along the roof of the mouth. When the snake is going to bite this fang stands at right angles to the upper jaw. The fang of a snake is like the needle of a hypodermic syringe. When the snake bites the poison is injected from a gland through an opening in the fang. On being bitten by a poisonous snake, the victim feels a stinging sensation which gradually becomes a dull aching pain, later the pain becomes very acute, the part swollen, with a leaden hue, due to ecchymosis, and later still (if the person does not die) a large ulcer forms with much sloughing. I have seen three cases of snake bite with this ulcer.

Treatment.—Immediately when a person is bitten several ligatures should be tied above the seat of the bite, enlarge the wound and permit free bleeding.

If permanganate of potass crystals are available, moisten and rub into the wound. If anyone is self-sacrificing enough, sucking the wound is useful in immediately drawing out the poison, but a great risk is run in case of an abrasion on the mouth or tongue, which may absorb the poison. The mouth should immediately be rinsed with an antiseptic. An injection of anti-venene can be given, and if early enough may save the patient's life. Anything that is done ought to be done at once as the bite from a vicious cobra will kill in from 5 to 30 minutes.

The colouring of snakes comes from the skin and scales, and may be in dots, stripes or transverse or longitudinal lines.

It is often very beautiful.

All snakes can swim. People are frequently bitten while bathing in tanks and rivers.

Snakes lay eggs. In some species the eggs are oviparous, which means the embryo is formed after the egg is laid. In others the egg is viviparous, *i.e.*, contains a developed foetus when laid and therefore must hatch quickly.

Snakes shed their skins every two or three months.

The easiest way to kill a snake is to strike it on the back with a stick, by so doing you break its back.

I will give rather a detailed account of the cobra or *Naia Tripudians*, one of the most deadly snakes, yet one of the commonest, and found all over India and Burma; also a short description of a few others.

The cobra is seldom seen by day but travels about at night. It lays eggs the size of a pigeon's, white in colour and of a leathery consistency. The eggs are oviparous and from 18 to 25 in number. The snake is very fierce while watching its eggs and will give chase to anyone approaching them. It lives on fish, frogs, birds, eggs and insects, and makes its home in cellars, under logs, in holes of stone walls, fowl houses, old ruins, etc.

Its length varies from 4 to 6 feet, and it is found in many colours—black, olive green, brown, etc. When about to bite the cobra expands its hood and hisses. The hood may be spectacled or not. When the snake is dead no hood can be seen. The King Cobra, or *Hamadryad (Naia Bungarus)* is not often seen as it inhabits very wild jungles. Its bite is deadly. It is from 12 to 15 feet in length, and like the cobra varies in colour, it will give chase without any provocation.

The bamboo snake or common viper is 3 to 3½ feet in length, coloured foliage green, sometimes yellowish or brown streaked. Found generally in the hills.

The Russell's viper, 5 feet long, buff or light brown in colour, with dark, white-edged rings. Found in the plains of India.

The Indian Python or *Python Mohurus*, 10 to 20 feet long. Found in India and Burma.

The poison of the Colubrine species causes death by paralysing the respiratory centre in the brain, and the Viperine species by paralysis of the vaso motor centres, exhaustion from bleeding and blood poisoning. The bleeding is caused by the poison in the blood preventing it from coagulating normally.

REMEDIES.

Antivenene Injections, Ammonia, Calcium. Adrenalin and Potas Permanganate.

Pitritrin. Alcohol. Strychnia. Ligaturing, amputation and artificial respiration.

Patients suffer much from fright and shock. They have been known to die of fright when bitten by a non-poisonous snake.

THE LEAGUE OF RED CROSS SOCIETIES.

DIVISION OF POPULAR HEALTH INSTRUCTION OF THE LEAGUE OF RED CROSS SOCIETIES.

Popular Health Instruction through the intermediary of national Red Cross Societies occupies a prominent position on the programme of the League. It has indeed been proved that the promulgation of sanitary laws and regulations, the efforts of the Ministry of Health, and the creation of hygiene and welfare institutions are impotent to achieve the desired result, namely, the physical well being of the populations. The problem is so gigantic, that only by energetic and constant effort extending over a number of years can the Governments hope to attain its solution. There is consequently ample scope for private institutions desirous of opening up new fields, and determined to impress upon the public, not merely the utility, but the absolute necessity, of the organization of a veritable network of institutions of social welfare and of preventive medicine.

By way of illustration, it will be sufficient to quote the numerous dispensaries organized in certain states of Eastern Europe by the American Red Cross and by private Associations with the assistance and co-operation of the League of Red Cross Societies. The countries in question are Roumania, Czecho-Slovakia, Poland and the Balkan States.

After functioning for a few years with personnel and funds supplied by the A. R. C. and the League, hospitals, dispensaries and polyclinics have been handed over to the Governments concerned, which, although no doubt in the first place incapable of undertaking the responsibility and the heavy financial burden entailed by such institutions, cannot now refuse to carry on activities the utility and value of which have been unanimously recognised and acclaimed.

A further example is constituted by the fact that the number of public health nurses paid by the American Red Cross is actually decreasing, not