

and vesicular rash or, in children, an ecthymatous eruption. The irritation and pustulation which follow the scratching may completely destroy the burrows, but in typical cases there is rarely any doubt as to the diagnosis.

The treatment is simple. It should consist of warm baths with a thorough use of a soft soap, after which the skin should be anointed with sulphur ointment, which in the case of children should be diluted. An ointment of naphthol (drachm to the ounce) is very efficacious.

(4) *Leptus Autumnalis* (*Harvest Bug*).—This reddish-colored parasite, about one half millimetre in size, is often found in large numbers in fields and in gardens. They attach themselves to animals and man with their sharp proboscides, and the hooklets of their legs produce a great deal of irritation. They are most frequently found on the legs. They are readily destroyed by sulphur ointment or corrosive-sublimate lotions.

Several varieties of ticks are occasionally found on man—the *Ixodes ricinus* and the *Ixodes americanus*, which are met with in horses and oxen.

## VI. PARASITIC INSECTS.

(1) *Pediculi* (*Phthiriasis*; *Pediculosis*).—There are three varieties of the body louse, which are found only in persons of uncleanly habits.

*Pediculus Capitis*.—The male is from 1 to 1.5 millimetre in length and the female nearly 2 millimetres in length. The color varies somewhat with the different races of men. It is light gray with a black margin in the European, and very much darker in the negro and Chinese. They are oviparous, and the female lays about sixty eggs, which mature in a week. The ova are attached to the hairs, and can be readily seen as white specks, known popularly as nits. The symptoms are irritation and itching of the scalp. When numerous they may excite an eczema or a pustular dermatitis, which causes crusts and scabs, particularly at the back of the head. In the most extreme cases the hair becomes tangled in these crusts and matted together, forming at the occiput a firm mass which is known as *plica polonica*, as it was not infrequent among the Jewish inhabitants of Poland.

*Pediculus Corporis* (*Vestimentorum*).—This is considerably larger than the head louse. It lives on the clothing and in sucking the blood causes minute hæmorrhagic specks, which are very common about the neck, back, and abdomen. The irritation of the bites may cause urticaria, and the scratching is usually in linear lines. In long-standing cases, particularly in the old dissipated characters, the skin becomes rough and greatly pigmented, a condition which has been termed the vagabond's disease—*morbus errorum*—and which may be mistaken for the bronzing of Addison's disease.

*Pediculus pubis* differs somewhat from the other forms, and is found

in the parts of the body covered with short hairs, as the pubes; more rarely the axilla and eyebrows.

The *taches bleuâtres* are stated by French writers to be excited by the irritation of pediculi. They are certainly associated with them in a considerable number of cases, but, if really caused by these parasites, it is difficult to understand why they should only be present with fever.

**Treatment.**—For the *pediculus capitis*, when the condition is very bad, the hair should be cut short, as it is very difficult to destroy thoroughly all the nits. Repeated saturations of the hair in coal oil or in turpentine are usually efficacious, or with lotions of carbolic acid, one to fifty. Scrupulous cleanliness and care are sufficient to prevent recurrence. In the case of the *pediculus corporis* the clothing should be placed for several hours in a disinfecting oven. To allay the itching a warm bath containing four or five ounces of bicarbonate of soda is useful. The skin may be rubbed with a lotion of carbolic acid, two drachms to the pint, with two ounces of glycerin. For the *pediculus pubis* white precipitate or ordinary mercurial ointment should be used, and the parts should be thoroughly washed two or three times a day with soft soap and water.

(2) *Cimex Lectuarius* (*Common Bed-bug*).—This parasite is from three to four millimetres in length and has a reddish-brown color. It lives in the crevices of the bedstead and in the cracks in the floor and in the walls. It is nocturnal in its habits. The peculiar odor of the insect is caused by the secretion of a special gland. The parasite possesses a long proboscis, with which it sucks the blood. Individuals differ remarkably in the reaction to the bite of this insect; some are not disturbed in the slightest by them, in others the irritation causes hyperæmia and often intense urticaria. Thorough fumigation with sulphur or scouring with corrosive-sublimate solution destroys them.

(3) *Pulex Irritans* (*The Common Flea*).—The male is from 2 to 2.5 millimetres in length, the female from 3 to 4 millimetres. The flea is a transient parasite on man. The bite causes a circular red spot of hyperæmia in the centre of which is a little speck where the boring apparatus has entered. The amount of irritation caused by the bite is variable. Many persons suffer intensely and a diffuse erythema or an irritable urticaria develops; others suffer no inconvenience whatever.

The *pulex penetrans* (*sand-flea*; *jigger*) is found in tropical countries, particularly in the West Indies and South America. It is much smaller than the common flea, and not only penetrates the skin, but burrows and produces an inflammation with pustular or vesicular swelling. It most frequently attacks the feet. It is readily removed with a needle. Where they exist in large numbers the essential oils are used on the feet as a preventive.