forty years, addicted to the use of morphine from the age of sixteen, in whom pale, bluish spots, similar to those produced by tattooing with Indian-ink, symmetrically distributed over the thigh, had followed injections of morphine. These spots were rounded or elongated, 2 to 3 millimetres in diameter, with a slight cicatricial depression. Histological examination of the spots showed the presence of black grains of unequal size, insoluble in alcohol, potash, and concentrated acids, and not giving the reaction for iron, and others transparent and refractive, with sharp corners. The first seemed to be particles of carbon, the others, particles of silica.

Eczema Produced by Formalin.—FISHER (*British Journal of Dermatology*, August, 1901), in a clinical note records his experience of the irritating effects of formalin upon the skin. He was accustomed to use this antiseptic in the preparation of museum specimens, more especially in the winter; and during several successive winters he suffered from an eczema of the fingers, which was at first attributed to the frequent wetting of the hands, but was subsequently found to be due to the use of formalin. Others who worked with him were similarly affected. Susceptibility to the irritant effects of formalin seems to be more or less gradually acquired. For a time the hands may be daily dipped into formalin solutions varying in strength from 1 to 5 per cent. without ill effects; then itching and vesicles begin to appear, which result in troublesome eczema if the use of the formalin is not immediately given up. The susceptibility of the skin is much increased after such an attack, mere handling of specimens preserved in formalin being sufficient to cause a return of the eczema.

The Histopathology of Two Cases of Cutaneous Tuberculides, in One of which Tubercle Bacilli were Found.—MACLEOD and ORMSBY (*British Journal of Dermatology*, October, 1901) examined the lesions from two cases of cutaneous tuberculides. These lesions were acne-like, bluish-red nodules, situated in the one case on the extensor aspect of both legs below the knees, in the other upon the forearms, hips, thighs, and legs. The histological appearances found were as follows: In both cases the initial changes appeared to be in the hypoderm, and consisted of proliferative changes in and cellular hyperplasia around the veins in that region. In both the cellular infiltration rapidly encroached upon and replaced the fat tissue, forming cellular areas more or less encapsulated by the remains of the interlobular septa. It is this early cellular infiltration which is to a large extent confined to the hypoderm, which gives rise to the deep-seated nodules which are scarcely visible clinically, but are usually appreciable to the touch. In both the cellular infiltration extended upward along the capillaries, forming foci in the neighborhood of the sweat-coils, hair-follicles, and sebaceous glands, and finally reached the papillary layer. In both the character of the cellular hyperplasia was similar. In the hypoderm it was more markedly tuberculous in appearance in the second than in the first case, but in both the foci in the corium presented equally the characteristic tuberculous architecture. Tubercle bacilli were found in the giant cell in the latter case. A fibrous stroma supporting the cellular hyperplasia was either entirely absent or was represented by oedematous, degenerated collagen and

elastin. In both cases the cellular hyperplasia developed at the expense of the tissue in the neighborhood and finally became necrotic. The papillary and the subpapillary vessels were congested as soon as the infiltration began to encroach upon the corium, accounting for the congested appearance which the nodules presented clinically. The epidermis was only secondarily affected.

The two cases clinically and histologically had certain marked features in common. In the second case there was a dactylitis and a tuberculous family history; tubercle bacilli were found in the lesions of this case. Although no bacilli were found in the lesions from the first case the similarity of the histological appearances left little doubt in the minds of the authors that it was also tuberculous.

[This report is of extreme interest, furnishing indubitable evidence of the tuberculous nature of these lesions.—M. B. H.]

HYGIENE AND PUBLIC HEALTH.

UNDER THE CHARGE OF

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Influence of Boric Acid and Borax upon the General Metabolism of Children.—Boric acid and borax are much used as food preservatives, and the question of their influence upon the general nutrition of the consumer is one of great interest. The literature on the subject is very voluminous, but the conclusions drawn by the investigators are most conflicting. In order to obtain reliable data upon which to base conclusions, Drs. F. W. TUNNICLIFFE and OTTO ROSENHEIM (*Journal of Hygiene*, April, 1901, p. 168) conducted a series of comparative metabolic observations on the human subject, extending over a considerable period. The observations were made upon three children, who were kept under constant supervision. Their ingesta were accurately weighed and their excreta were collected daily without loss. Both ingesta and excreta were carefully analyzed by the most approved methods. The results of the very numerous analyses are given in detail. The general conclusions arrived at may be summarized as follows: Boric acid in small doses up to 1 gramme per diem, continued for some time, exerts no influence upon proteid or phosphorus metabolism, has no effect upon the assimilation of fat, and exerts no inhibitory effect upon intestinal putrefaction. Body-weight increases. The quantity of dry feces is not affected, but their nitrogen and phosphorus percentage is slightly decreased. Borax in continued doses of 1.5 gramme has no influence upon proteid or phosphorus metabolism, may or may not improve fat assimilation, does not interfere with increase in weight, has no effect upon the weight of dry feces