factory results is large, among which may be specially mentioned vascular nevi, especially small lesions up to the size of a coin; obstinate chronic inflammatory lesions, as lichen and thickened eczematous patches; lupus erythematosus; senile pigmentary spots of the hands and face; warts and callosities; moles and pigmentary nevi, especially small nevi. For the ordinary forms of cutaneous carcinoma the author prefers other methods of treatment. (The paper is an interesting and valuable contribution to cutaneous therapeutics.—L. A. D.)

Our Knowledge of Pigment Production.—J. E. R. McDONAGH (*Brit. Jour. of Derm.*, October, 1910) gives a summary of the discoveries made since the observations of Koelliker in 1860, who found in the epidermis of a fish pigment cells which sent their processes into the corium. Many of these branched cells being found in the corium, he concluded that they originated in the corium. Kebert after him regarded these "chromatophores" (as Koelliker called them) as connective tissue cells which had the power of manufacturing pigment for the supply of the epidermis. Riehl (in 1884) called these pigment cells "wander cells," and because he found them mostly arranged around the bloodvessels of the corium, presumed they built up or derived their pigment from the blood and carried it to the epidermis. Ehrmann in part confirmed Riehl's studies, but stated that the wander cells stop short when they reach the epidermis, the further progress of the pigment being performed by an intermediary cell branched and umbeloid in character, and epithelial. Karg transplanted by grafts negro's skin on white skin, and vice versa. The former became white and the latter black, showing that the cells in the corium were the cause of the pigmentation. Ritterer (in 1887) and others since have shown that epidermic pigment had an autochthonous origin. Meirowsky's important recent experiments with the Finsen rays show that pigment was found in the epidermis only, and the origin of pigment is autochthonous. Hemoglobin plays some part in the production of pigment, but is not the source of all. It is impossible to determine the relation blood bears to pigment. It would seem that the production of pigment may be regarded as a metabolic process, affecting the proteid molecule of the cell, this metabolic change being due to the action of a ferment; the studies by several observers in recent years favoring the part played by a ferment, especially that named by Boorquelot "tyrosinase." The farther connection between pigment and metabolism is shown in achromosis, where the cartilage of the body becomes black.

X-ray Therapeutics in Dermatology.—The following is condensed from a lengthy review of a book (just published) by FRANK SCHULTZ, by "J. B. L.," in the *British Journal of Dermatology*, for October, 1910. Dr. Schultz is chief of the Light Department at the Berlin Kgl. University Polyclinic, the work being based on an experience with 25,000 x-ray applications. It is stated that the two extreme results of the action of x-rays are surprising cures and serious injury. The exclusion of unsuitable cases and avoiding all injurious after effects in cases treated is the duty of every x-ray therapist. The question of idiosyncrasy, or undue capacity of reaction to x-rays, is

of great importance from a forensic as well as a therapeutic standpoint. Cases of general reaction are recorded in literature, and also eruptions resembling toxic erythematata (with or without fever), following the treatment of circumscribed, as well as more extended, areas, by x-rays. Holzkeel believes that toxic erythematata only follows burns, and are due to absorption of x-rays necrosed products. They cannot, therefore, be regarded as cases of idiosyncrasy, and apart from such burns Schultz met with no such reaction in his large experience. Hypersensibility to x-rays may vary in the same patient at different times, and hence from a legal standpoint the general question of idiosyncrasy is not so important as the question of the exact dosage employed in a given case. At the Radio-therapeutic Institute, in Berlin, every dose is entered in a record book, and is only administered in the presence of a physician, though it is doubtful if the physician must necessarily be present in the apartment during the entire period of the x-ray application, if he personally sees that the current is stopped at the right time. Schultz has not found much benefit from x-rays in acne rosacea. He does not employ it in tinea kerion. In sycois vulgaris good results often follow $\frac{1}{2}$ dose, and cases rebellious to this treatment often improve under combined x-ray and high-frequency (unipolar) applications. The treatment of hypertrichosis by x-rays was not found satisfactory, inasmuch as, if carried far enough to cure the local growth, atrophic changes in the skin and other grave dangers occur. Hyperidrosis seems benefited in some cases, especially under full doses, but other cases show no improvement, and it is difficult or impossible to determine beforehand which type of case clinically is likely to be benefited. Schultz thinks that the damage to growing bones has obtained undue prominence from the experiments upon animals, for he has not met with such cases.

Neuralgia Paresthetica.—S. SHERWELL (*Journal of Cutaneous Diseases*, June, 1910), gives his experience with a case of this disease, which was fully described in 1906, by Dr. J. C. White, of Boston. The region affected, as, for example, a limb, becomes the seat of a variety of perverted sensations, such as tingling, tenseness, or still more acute superficial tearing, darting pain, with numbing of sensation. It may begin with a glowing sensation, or like the beginning of herpes zoster, and in the author's belief the pains are caused by the same mechanical means, namely, pressure on a nerve and its continuity; but it is a disease of sensory disturbance only, at least in his cases, though Dr. White found some objective symptoms. He concludes that the condition arises from a constriction or pinching of a nerve as it passes through tough fascia, irritation resulting therefrom. Rest and massage produce temporary relief, though not a cure. (In which case the use of heat and cold or friction or massage produced no relief whatever.)

Sporotrichosis in Man.—From the pen of the late and distinguished JAMES NEVINS HYDE, of Chicago, conjointly with D. J. DAVIS (*Journal of Cutaneous Diseases*, July, 1910), comes a valuable article on this comparatively new and but little known disease affecting both man and some of the lower animals, notably the horse ("mycotic lymphangitis in horses"). Experiments upon animals and bacteriological