rye, barley or buckwheat. Malt_ bread, or a mixture of these may be substituted for the flour. Sugar is added, and pepper is used to render it aromatic. There are no hops used as in beer. Its alcohol varies from 0.7 to 2% by volume. Sp. gr. 1.006 to 1.016, and in 100 volumes contains 0.035 to 0.159 carbonic acid, 0.07 to to 0.082 acetic acid, 0.180 to 0.48 lactic acid, and from 1 to 5.2 extract, consisting of glucose, dextrine, fats, salts, albumen, etc. It contains very microbes, but an enormous few quantity of fungi or yeasts. The typhoid bacillus and cholera vibrio soon die, in it. In the hospitals one litre a day is the allowance.—From Rev. d. Sci. med., v. 52, 1898, p. 212.

MONOCHROMATIC LIGHT AND BACTERIA.

BECK AND SCHULTZ .-- Action of the so-called monochromatic light upon the development of bacteria. (Zeits. f. Hyg., v. 23.) Cultures of chromogenic bacteria on nutrient agar were exposed four days to the action of the sunlight, others to diffused daylight, to the incandescent light and to the Rœntgen rays. None of the colored lights either killed the bacteria or impeded their development, though they seemed to exercise a deleterious influence upon the production of color by some of them. The diffused daylight favored their development and production of color. In the long run darkness, but especially sunlight, hinders the production of color by certain bacteria. The Rœntgen rays have no deleterious action upon them. -From Rev. d. Sci. med., v. 52 1898, p. 43.

EARLY DIAGNOSIS OF TUBERCULOSIS BY THE RADIOSCOPE,

KELSCH AND BOINON.—Note on the early diagnosis of tubercular affections of the chest by the radioscope. (Bull. de l' Acad. de med., 1897, No. 51.) In 124 cases, in which other methods

showed an absence of pulmonary tubercular processes, the examination of the chest, from its posterior surface, by mans of the flouroscopic screen, gave in seventy-three negative results, and in fifty-one showed various slight changes, as diminished transparency of one or both apices or of the pleura; swelling of the bronchial glands or diminished excursions of the diaphragm on one side. Part or these changes were evidently due to tubercular processes, which had been latent or awakened by an auto-infection, so that the fluoroscopic screen corroborates the autopsy finds, which show that from one to two young persons out of every five have latent The author tubercular affections. suggests that it will be a valuable help in the early recognition of pulmonary tuberculosis.-From Cent. f. med. Wissen, 1898, p. 284.

CHEMISTRY OF THE ANTIDIPHTHERITIC SERUM.

V. SZONTAGH AND WELLMANN.-Comparative chemical investigations on the normal horse and antidiphtheritic serum. (Deut. med. Woch. 1898, p. 421.) Vaughan's isolation from various sources of nucleo-albumen possessing bacteriacidal properties would suggest the view that possibly the serum therapeutics could be replaced by nuclein treatment. The authors' investigations show that with the pepsin and hydrochloric acid test, normal horse serum and the antidiphtheritic serum react negatively for nucleo-albumen. The coagulated proteids from both likewise proved negative, so that the active principle cannot be a nucleo-albumen. The quantity of albumen progressively increases during immunization, so that the antidiphtheritic serum contains about 0.253 per cent. more than the normal. The ash in both is approximately the same, but the amount of chlorine is a little less in the antidiphtheritic serum. During the immunization the freezing point,