

"If a layman should be careful in selecting his physician, how much more careful should he be in selecting a surgeon? How absurd to let anybody operate who says he can, unless it is known he has had some practice and some experience.

"Finally, you will ask me, 'Who could or should be a surgeon?' and in answer I will say that he must be a well educated physician, must have been a general practitioner and a good therapeutician."—Abstract of Paper by DR. CARSTENS in *Transactions of the Michigan State Medical Society*.

### The Treatment of Phthisis With Blue Light.

Kaiser (*Wien. Klin. Woch.*), after making a series of investigations on this subject, draws the following conclusions: (1) Tubercle bacilli in pure culture were killed in thirty minutes by the blue light at a distance of five metres, while they survived the equal illumination by an ordinary arc lamp. (2) Tubercle bacilli in pure culture were pasted on a patient's back, and the blue light was directed on the patient's chest at a distance of five metres for thirty minutes; this was repeated for six days. The bacilli were "weakened." (3) Pure culture of tubercle bacilli were illuminated by a light concentrated through a hollow lens containing a solution of alum and methylene blue with ammonia; they were killed. (4) The same lens was used, and the light was split up into the spectral colors by means of a carbon disulphide prism. Cultures lived in red and yellow light, but were killed in from blue-violet to ultra-violet. (5) A photographic negative with an unused film was pasted on a patient's back in such a way that all light was excluded. The film was illuminated through the patient's body, and a blurred "positive" was obtained.

Following these experiments, Kaiser tested the blue light in two cases of advanced phthisis; after six days night sweats ceased and cough became less; after six weeks (up to the present) diminution of bacilli in sputum. In a case of tuberculous abscesses in the thigh and knee flexion, all treatment that had been applied before (for three months) failed to do any good; as a result of blue light there was healing of all abscesses in four weeks. A case of "weeping" eczema in a child of "tuberculous character" was cured in five weeks.

The author concludes that (1) blue light kills tubercle bacilli; (2) the heat rays are excluded by the hollow lens with cooling arrangement; (3) action of the light is independent of the distance and intensity of the source of light; (4) the light can pierce the body sufficiently strongly—only the chemical rays do so; (5) pure blue light acts strongly as a resorbing agent; and (6) blue light has a local sedative action if the rays are concentrated, and may even produce anesthesia.