

is a preponderance. As far as I am aware there are no statistics to show that the incidence of cataract is high amongst the inhabitants of the high Alps. On the other hand, it is common knowledge that cataract is very prevalent amongst the native population of the plains of India. Cataract formation is also common, or said to be, amongst glass-blowers. It has also been noticed that dogs allowed to lie before glowing fires are apt to suffer from cataract formation.

I suggest to Mr. Harman that it is the heat rays, and not the ultra-violet rays, which cause cataract. He states that cataract changes, in their earliest stages, are commonly found in the lower half of the lenses. I suggest that this is further proof that heat rays, and not ultra-violet rays, are the cause. The eyelids protect the upper half of the lens from direct sunlight and its actinic content, and the eyelids do not permit of ultra-violet light to pass through them. Any that may get through is again filtered out by the cornea. No ultra-violet is reflected by the earth. On the other hand, the heat rays penetrate through the eye to the lens, and are also, to some extent, re-radiated by the earth. I would further point out that nowhere on the earth do solar radiations contain more than one-half an octave of ultra-violet, but from artificial sources much more is available. In exact terms, the solar spectrum at its best only goes down to 2,900 A.U. or thereabouts, whilst from the commonly employed artificial sources the ultra-violet wave-lengths down to 2,000 A.U. and still shorter are emitted.

I myself have treated several cases of early cataract formation by actinotherapy, with considerable improvement in vision resulting. I believe that everything depends upon the technique of administration, and that this method does demand more extended trial. There is evidence that excessive doses of  $x$  rays lead to the formation of epitheliomatous changes in the tissues. Nevertheless,  $x$  rays are in increasing use to-day, with the full approval of surgeons, for the treatment of cancer. I would therefore beg Mr. Bishop Harman to postpone judgement yet awhile before coming to the conclusion that "treatment with rays will not benefit cataract." Indeed, there is some evidence that it is liable to cause cataract."

\*\*\* We have referred this letter to Mr. Bishop Harman, who replies: It is common ground that sunlight conveys rays which range from the invisible ultra-violet rays through the luminous spectrum to the invisible infra-red heat rays. Heat rays do produce cataract—for example, glass-blowers' cataract—but the lens opacities found in these cases are characteristic, and differ materially from those of any other form of cataract. We have no knowledge that luminous rays as such affect the lens adversely. Ultra-violet rays certainly do affect the eyes injuriously. If Dr. Hall will refer to the report of the committee on the Causes and Prevention of Blindness (Interim Report regarding Alleged Dangerous Lights in Kinema Studios, H.M. Stationery Office, 1921) he will find conclusive evidence of the truth of this statement. There was a sharp outbreak of eye inflammation in film studios which provoked questions in Parliament. The matter was referred by the Minister of Health to the committee then sitting. I was a member of that committee, and well remember the care with which the evidence was sifted, and the visits made to the film studios. The outbreaks were similar in character to what is known as "snow blindness." The symptoms were very painful and alarming, but happily they were transient. The committee concluded that the outbreak was due to the exposure of the artistes to naked arc lights. When these lights were properly screened by transparent glass or glass silk (which cut off the ultra-violet rays) the outbreaks ceased. I have heard of no further occurrences. Anyone who has seen a film in the making in a studio, with its huge batteries of arc lights, spot lights, and mercury vapour lamps, must have been amazed at the intensity of the illumination. Yet this, when employed with glass screens, causes no trouble. This outbreak in the film studios was a large-scale test the like of which is not likely to occur again. It afforded evidence that ultra-violet rays are injurious to the eyes, and ample justification of my warning against their use upon the eyes. Reference may also be made to Mr. Duke-Elder's book, *Recent Advances in Ophthalmology* (p. 229): he says, "There is also a considerable amount of evidence which associates the occurrence of senile cataract with the action of the long ultra-violet rays in sunshine, for, as we have seen in a previous chapter, rays from 3,000 to 4,000 A.U. are absorbed in considerable quantities by the lens. Finally, cataract has been reported after three therapeutic exposures to large doses of  $x$  rays or the gamma rays of radium."

#### PASSAGE OF RENAL CALCULUS THROUGH URETHRA.

"G. E.," a medical practitioner who has recently suffered from renal calculus, sends an account of the course of his case until its termination by passage of the stone through the urethra: Early symptoms suggested gastric ulcer and, later, appendicitis; the gastric symptoms were relieved after operation, only some discomfort and acidity remaining. Some six months ago he was attacked by pain in the lower abdomen, which passed off without treatment in about an hour. After being free from symptoms for about a month he had repeated attacks of pain in the lower

abdomen; the pain eventually was more pronounced on the left side and was only relieved by morphine. When the acute symptoms passed off his condition was almost that of collapse, and there was frequent micturition, with pain at the neck of the bladder after the act of micturition. He was x-rayed in July, and a stone was demonstrated in the left ureter; this was confirmed by a later cystoscopic examination. This examination was performed without general anaesthetic, but much pain followed the injection of beta borocaine, and for about thirty-six hours subsequently the act of micturition was accompanied by severe pain and passing of blood. All bladder symptoms disappeared within about forty-eight hours, and there was freedom from pain and discomfort for nine days, when severe pain in the lower abdomen began again. Great irritability of the bladder followed, with constant desire to micturate; only small quantities of urine were passed, and each act was followed by severe pain, lasting only a short time, round the neck of the bladder. This condition continued for two days, when a stone was passed through the urethra. Pain and irritability of the bladder gradually passed off, and there have been no symptoms since.

#### A SOUTH AFRICAN WINTER RESORT.

HERMANUS is a small town of 1,000 inhabitants, eighty miles from Capetown, which is now being developed as a seaside resort. Together with two little villages, Poole's Bay and Mossel River, it forms the coast of Hermanus. The attractions of this coast consist in the beauty of the scenery, an extensive beach for surf bathing, twelve square miles of water for boating at the Klein River Lake, and above all, the fishing, which has earned for Hermanus the name of "The Paradise of the Rock Angler." A pamphlet issued by the South African Publicity (Proprietary), Limited, gives pictures of anglers standing beside the 100 lb. kabeljaauws they have caught, or the 583 lb. of fish landed in one afternoon. There are also descriptions of the amenities of the Marine and Riviera Hotels. Dr. Love, who has sent us the pamphlet, regards Hermanus as an excellent refuge from the English winter; its climate is equable, and colds and bronchitis are almost unknown. Amongst the other attractions the pamphlet states that at the Old Year's Eve fancy dress ball "some of South Africa's most austere citizens can be seen in the most weird costumes."

#### INTRAVENOUS MEDICATION.

DR. E. BURKE (Darrang, Assam) writes: In reply to "Major R.A.M.C." (October 1st, p. 619) I have used iodine intravenously in many diseases with good results, employing the following formula, suggested in the *Indian Medical Gazette*, April, 1926, p. 206: Iodine (pure) 24 grains, potassium iodide 36 grains, distilled water to 1 oz. Dose: 1 to 2 c.c.m. diluted with 8 c.c.m. of distilled water. Each cubic centimetre of the above solution contains 1 grain of iodine. Injections should be given once or twice weekly. Once a week is usually sufficient. In cases showing marked idiosyncrasy to iodine (which very seldom occurs) the dose is halved. I have had striking results in the tea gardens in cases of pneumonia, erysipelas, cellulitis, rheumatism, septic wounds, and skin diseases, and also in bad cases of tropical phagedaenic ulcers. Iodine given intravenously is said to produce a marked leucocytosis, and to act also as a blood disinfectant.

#### BEVERAGES!

SIR ROBERT DONALD (London, S.W.7) writes: It may be of interest to your readers to know that the medicinal waters of Carlsbad are now admitted into England duty free. Hitherto the customs authorities were under the impression that the Sprüdel, Schlossbrünnen, Mühlbrünnen, and other waters could be used as table beverages. No one could try the experiment with impunity. It is always well to have medical advice before drinking Carlsbad waters, especially away from their source.

#### WORDS.

DR. HEYWOOD SMITH (Chichester) writes: It seems a pity that many of our professional brethren fail to express adequately the meaning they intend to convey. There is a glaring instance on page 935 in your issue of November 19th, where I find: "Laparotomy was performed on July 25th by Mr. C. L. Isaac, who, on opening the abdomen," etc. This is a manifest contradiction in terms. Laparotomy, a word imported from America, means an incision in the flank. It should be laparatomy, as a flank is *λαπαρά*, not *λαπαρον*. The proper word, as used by Bland-Sutton and others, should be coeliotomy, from *κοιλία*, the belly.

#### OPAQUE SUBSTANCES AS AN AID TO DIAGNOSIS.

##### Correction.

SIR JAMES PURVES-STEWART has called attention to a mistake in the report of his remarks about heavy lipiodol (*JOURNAL*, November 26th, p. 937). The most generally employed method is that of injection through the *atlanto-occipital* ligament—not, as stated in the report, through the *sacro-coccygeal*.

#### VACANCIES.

NOTIFICATIONS of offices vacant in universities, medical colleges, and of vacant resident and other appointments at hospitals, will be found at pages 74, 75, 76, 77, 80, and 81 of our advertisement columns, and advertisements as to partnerships, assistantships, and locumtenencies at pages 78 and 79.

A short summary of vacant posts notified in the advertisement column appears in the *Supplement* at page 219.