ministered by the presiding judge, rather than by an officer of the court, but the jury oath is administered by the clerk of court. In either case the person claiming to be so sworn should have the correct words said over to him, and should repeat them. No book or other symbol is used, and the oath is complete as soon as the words are said. All penalties for perjury or other consequences are unaffected by the change of form, for which, as will be seen by the words of the Act itself, no reason is to be asked or given. A witness intending to take this course would do well to take this form of words with him, and tender it to the Court at once. The Court is supposed to have judicial knowledge of it, though in fact it could hardly be expected that the multitude of judicial officers concerned would at once know the exact details. The witness's right, however, is quite absolute, and any coroner or judicial officer refusing would probably subject himself to an action for damages and costs.

It might be expedient for the removal of practical difficulties if the Home Office and the Lord Chancellor were asked to issue official notices on this subject to the judicial offices with which they are in communication. One point which should in such a case be borne in mind is the position of the words as to the Day of Judgment which are marked in brackets above. It is said that these words, although they are unquestionably a part of the authentic and customary form handed down from earlier times, are now frequently omitted in practice by the Scotch judges and sheriffs when administering the oath. Probably, therefore, the oath even without the words would be quite valid. But in the absence of any authoritative ruling on the matter it will be proper to repeat the full formula.

NOTES ON HEALTH RESORTS.

XI.—ST. RAPHAEL.

[SECOND ARTICLE.]

By W. VIGNAL, D.Sc. Paris.

The Arrangements for the Ozone Cure.—Effect of Inhalation of Ozone on the Corpuscular Elements and the Pigment of the Blood.

In a former note on St. Raphael we stated that an ozone establishment was organised there for treating the special affections the patients sent to St. Raphael and Valescure suffer from. A number of observers have noticed that localities where ozone is present in a large proportion, such as the seaside, the surface of the sea, and numerous places, exercise a good influence on the animal organism. Observations by Schöenbein, Scoutteten, Baekkel, Cl. Bernard, Thénard, and others have shown that it is dangerous to submit animals for long periods to the inhalation of ozone artificially prepared. These experimenters prepared ozone with phosphorus or with the electric spark. Ozone thus prepared is mixed with nitric or nitrous products. In 1886 Dr. Donatien Labbé constructed an apparatus consisting of two concentric tubes. In the space between the tubes electric sparks were produced. With this apparatus he was able to make a large quantity of ozone—that is to say, some ten milligrammes every minute. Animals inhaling ozone from this apparatus continued in perfect health. Encouraged by these results, he tested on himself the innocuity of ozone thus prepared, and afterwards submitted to the influence of ozone inhalations a series of cases of slight anæmia. He found that after a certain number of daily inhalations, the proportion of hæmoglobin was considerably increased. Drs. Donatien Labbé and Oudin then treated thirty-eight tuberculous patients with ozone inhalations, seven in the first stage, twenty-three in the second, and eight in the third. At the Paris Congress of Tuberculosis in August, 1891, Drs. Labbé and Oudin stated that all these patients improved considerably. They have also treated fifteen patients in M. Desnos's ward in the Charité Hospital; eight were anæmic and seven suffered from pulmonary tuberculosis. The anæmic patients on an average increased in weight 1.8 kilogramme during a month's treatment; the tuberculous patients during the same time 1.5 kilogramme, the oxyhæmoglobin had increased 1.33 per cent. in fourteen days.

Last year Dr. Bontems of St. Raphael applied the ozone

treatment to twelve anæmic and tuberculous patients; they all improved. Many therefore believed that the ozone treatment would be a beneficial therapeutic agent added to the climate of St. Raphael and Valescure. In the previous article in the BRITISH MEDICAL JOURNAL the climatological advantages of these localities were described. There is now at St. Raphael an establishment at which ozone treatment is adopted for anæmia, for persons convalescent from serious illnesses or operations, and for tuberculosis in its early stages; in a word, for all illnesses in which it is necessary to increase the quantity of hæmoglobin. Dr. Lagrange, the director of this establishment, kindly offered to allow me to visit the establishment and examine the patients. Dr. Mireur, Dr. Niepce, and Dr. Bontems, also begged me to examine their patients under ozone treatment. The ozone establishment is well organised, containing inhalation rooms where patients can inhale ozone either as it leaves the tubes or diffused through the atmosphere. There is likewise an excellent hydrotherapeutic establishment attached, and a fine glass gallery which serves as a promenade. The electric generator is an electro-magnetic machine, which also provides light for the establishment. It is placed in a separate underground room, and all vibration and smell are thus avoided. I carefully studied the effect of ozone on red blood corpuscles and hæmoglobin, in some of the patients under treatment. A good average of red corpuscles in the blood of a healthy person is 5,000,000, that of hæmoglobin 13 to 14 per cent.

CASE I.—Mdlle. H. was very anæmic after a violent attack of influenza combined with bronchitis. On January 27th the red corpuscles were 3,900,000, white corpuscles 7,400, hæmoglobin 8.33 per cent. On April 2nd, red corpuscles 4,760,000, white 3,400, hæmoglobin 12 per cent.

CASE II.—Mdlle. E. Tuberculous pleurisy cured. The apex of the left lung was tuberculous. The patient, who was slightly dyspeptic, received no other treatment but ozone; she was not able to take cod-liver oil. On January 20th the red blood corpuscles were 4,050,000, the white 4,400, hæmoglobin 8.30 per cent. On March 21st the red corpuscles were 4,920,000, the white 2,300, hæmoglobin 12.25 per cent.

CASE III.—M. L. Tuberculous, subcrepitant and crackling râles in the infrapinnous fossa on the left side; on the right side, subcrepitant râles dispersed throughout the apex of the lung. Dr. Mireur also examined this patient the same day I made my second examination, and Dr. M. found considerable improvement. On the left side, where at previous auscultation he heard fine râles, there were none except just at the scapulo-vertebral angle. This patient had also presented pharyngeal tubercles, but these had disappeared. On January 23rd the red corpuscles were 3,170,000, the white 113,000, hæmoglobin 6.78 per cent. On March 18th the red corpuscles were 4,190,000, the white 10,000, hæmoglobin 8 per cent.

CASE IV.—Mme. L. Spinal irritation and neurasthenia. On January 26th the red corpuscles were 4,070,000, the white 3,000, hæmoglobin 10 per cent. On March 21st the red corpuscles were 4,630,000, white 2,600, hæmoglobin, 11.5 per cent.

CASE V.—Mdlle. H. Asthmatic from her birth, herpetic constitution, anæmia. On January 27th the red corpuscles were 3,730,000, the white 6,500, hæmoglobin 8.7 per cent. On March 24th the red corpuscles were 4,400,000, white 4,400, hæmoglobin 11.75 per cent.

CASE VI.—M. E. Pulmonary tuberculosis in the first stage on both sides, not very extensive. On January 19th the red corpuscles were 3,750,000, the white 12,300, hæmoglobin 8.5 per cent. On March 17th the red corpuscles were 4,630,000, the white 13,800, hæmoglobin 10 per cent.

CASE VII.—M. H. Purulent infection (salpingitis). After parturition, when the treatment was commenced, the patient could scarcely walk, owing to her weakly general condition. On January 27th the red corpuscles were 4,230,000, the white 15,500, hæmoglobin 8 per cent. On March 18th the red corpuscles were 4,930,000, the white 7,400, hæmoglobin 10 per cent.

CASE VIII.—Mdlle. R. Nothing very marked in her physical condition, but her mental condition bad, and was influencing her physical condition; menstruation absent. On January 26th the red corpuscles were 4,190,000, the white 6,000, hæmoglobin 9.3 per cent. Menstruation commenced after one month's treatment. On March 14th the red corpuscles were 4,980,000, the white 3,200, hæmoglobin 11.5 per cent.

CASE IX.—M. C. The apex of both lungs tuberculous, but the general health was good. After catching cold the cough came back, as well as night sweats, and the patient lost appetite. Dr. Bontems advised ozone inhalations; these were practised about twenty times in the course of a month; the cough had almost entirely ceased after the third inhalation, and the patient slept better. On January 25th the red corpuscles were 4,350,000, the white 11,900, hæmoglobin 10 per cent. This patient had been treated five times with ozone inhalations when I examined him on January 25th. At the termination of the treatment the red corpuscles were 5,090,000, the white 4,600, hæmoglobin 12.75 per cent.

CASE X.—Mme. G. Nothing very definite, rheumatic and very anæmic. On January 25th the red corpuscles were 3,100,000, the white 4,300, hæmoglobin 8.33 per cent. On April 4th the red corpuscles were 4,680,000, the white 3,200, hæmoglobin 12 per cent.

THE Hofmann-Haus, the new home of the German Chemical Society, which is to be erected as a memorial to the late Professor A. W. Hofmann, is estimated to cost 1,200,000 marks (£60,000). The Langenbeck-Haus cost only 300,000 marks (£15,000).