

# Looking Back.

FROM  
THE LANCET, SATURDAY, June 10, 1826.

DR. HOPE AND HIS LECTURE  
TO THE  
LADIES OF EDINBURGH.

THE fifteenth day of February of the present year will be long considered a remarkable era in the history of the modern Athens. For the first time, we believe, that any thing of the kind has been attempted in Europe, the splendid portals of the University of Edinburgh were thrown open to the fair sex, and they were permitted to approach the pure fountain of science, and sip a little of its refreshing streams. On that memorable day Dr. HOPE, the Professor of Chemistry, commenced a popular course on that fascinating subject. That learned lecturer has been long celebrated for his oral instruction, but still more famous for his showy experiments exhibited to the grown-up children of the male sex, whose admiration and wonder have been often excited by his Breslaw or Boaz-like dexterity.

Last year his excellent friend and able colleague, Mr. Leslie, condescended to withdraw his attention for a little from his profound speculations on radiant heat, or from the study of the Hebrew language, in which he is so deeply skilled, and astonished the ladies with the wonderful powers of the magic lanthorn and the solar microscope, and while they were glowing with admiration, he cooled their ardour by producing, in a moment, a mountain of ice. Pondering on this extraordinary feat, the learned Professor of Chemistry determined to enter the list of honourable rivalry; and having consulted his honourable patrons, the Lord Provost and Magistrates, on the propriety of this plan, received their unqualified approbation, and announced his intention to the citizens at large. By the way, is this not a direct acknowledgment of the right of the Magistrates of Edinburgh, as patrons of the University, to regulate its affairs, a subject in course of litigation, we understand, in the courts of law, and to which we shall probably soon direct our attention.

The news of the proposed lectures flew on the wings of the wind; and the ladies were delighted to find that they were on the eve of emancipation and were to be entirely relieved from the antiquated shackles, almost indeed corroded with rust, with which they had been long fettered. Dresses, parties, and balls were no longer heard of; the tongue of scandal was silent; chemistry, chemistry and *Hope*, was in every one's mouth, and to be admitted within the walls of the famed University was quite ravishing! The long expected day at last arrived: coaches and chaises, gigs and curricles, were all in requisition. Prince's-street, the fashionable winter promenade of the beaux and belles of the modern Athens, was deserted; the shops of the milliner and silk mercer were abandoned; the voice of the auctioneer was addressed to empty benches, and the strokes of his hammer resounded from the walls of a vacant room. Attracted by the novelty of the exhibition, a dense current of vehicles was seen flowing from North to South before the hour of two o'clock; and as they drew up before the noble portico of the College, and attempted to enter it, what was their surprise and astonishment to find that admission, by the usual approach, was refused; and being ordered to move round to the South side of the edifice, their surprise was not diminished when it was perceived that they must enter the seat of learning by a *window*.<sup>1</sup>

*Conversion extraordinary of the Royal College of Physicians at Edinburgh into a Soho-square Bazaar.*

THE splendid hall of the Royal College of Physicians in George-street, was opened a few weeks ago, under the auspices of that learned body, as a Bazaar, in which was exhibited an extensive and varied collection of children's frocks, work-baskets, fire screens, caps for dress and undress, child's dolls, pincushions, confectionary, and numerous other articles suited to the taste or agreeable to the palate of an

immense crowd of every rank, sex, and age, which the novelty of the scene had attracted to the spot. A brisk sale continued for some hours and we understand that the whole stock was bought up.<sup>1</sup>

## THE WATERS OF CHÂTEL GUYON.

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It may interest some of the many readers of THE LANCET to read an account of the above-named health resort and its medicinal waters. I visited Châtel Guyon in the summer of 1902 and I was so much struck with the potentialities of the place that I was prompted to lay before the profession the advantages which sufferers from certain diseases, especially from gastro-intestinal disorders, might derive from a course of the waters there.

Châtel Guyon is comparatively unknown so far as the British public are concerned. Our patients are sent more frequently to Vichy, to Royat, to Mont Dore, to Plombières, or to la Bourboule; whilst Châtel Guyon in the immediate vicinity has been overlooked, notwithstanding that its waters are at least as efficacious as those of its neighbours if not more so. On the other hand, the French and Italians, as well as the people of other nationalities, know the value of its springs and its climate, and patients suffering from certain definite groups of diseases resort there in large numbers for restoration to health. There is even local evidence that the value of its springs was not unknown to the Romans.

The small town of Châtel Guyon is situated in Puy-de-Dôme, Auvergne, at an altitude of about 1500 feet above sea level. The nearest railway station is Riom (on the Paris-Lyon-Méditerranée Railway) about four miles away, whence a good service of omnibuses and carriages conveys visitors through a charming series of vineyards to Châtel Guyon. Riom itself is about eight hours from Paris.

Châtel Guyon consists of two separate portions, an old town and a new town. The former nestles round the side of a high hill quite apart, and its inhabitants are for the most part concerned in agriculture. The new town has sprung up in recent years on the banks of a mountain stream (Sardon) which is largely augmented by the springs which boil up from its bed. In this new town only are found the various springs, baths, and other establishments which require description.

The season extends from May to September inclusive. The best months are July, August, and September. During these months the climate is bland yet invigorating. July is the warmest month but the daily mean variation in temperature only ranges between 55° F. in the early mornings of September and 78° at midday in July. The valley is sheltered from violent winds by vineclad hills, and thunderstorms, though not unknown, are rare and of short duration only. The soil is dry and permeable, there are no stagnant pools as no water collects, and after the heaviest rains the roadways are dry in a few hours.

There are more than 20 springs in Châtel Guyon and many more which could certainly be used with profit are manifest in the bed of the river. Others have doubtless to be discovered. The principal springs or "sources" are named Gubler, Marguerite, Yvonne, and Deval, and although these vary slightly from one another in their physical and chemical qualities I doubt if there is so much difference in their action as to call for special comment. The following characteristics therefore may be regarded as practically common to all.

The water rises up in the basins at a temperature of from 76° to 100°, bubbling and effervescent, with intermittent larger escapes of gas. It is clear, limpid, of slightly acid reaction, odourless, and by no means disagreeable to drink, a slight saline astringent taste being due to iron in solution. It reminds one of draught of flat, warm soda-water. Indeed so palatable is the water that it is freely drunk by the inhabitants in order to quench thirst. The chemical composition of the waters, as will be seen from the following table, shows that they are extremely rich in sodium chloride, magnesium chloride, and also in calcium bicarbonate, with free carbonic acid

<sup>1</sup> Excerpts only have been transcribed.

gas. The quantities are stated according to the metric system of measurement.

	Grammes per litre.
Chloride of sodium ... ..	1.6
„ magnesium ... ..	1.5
Bicarbonate of calcium ... ..	2.1
„ sodium ... ..	1.0
„ iron ... ..	0.06
„ lithium ... ..	0.01
„ potassium ... ..	0.2
Sulphate of calcium ... ..	0.5
Free carbonic acid gas ... ..	1.1
Silica ... ..	Trace.
Arsenic ... ..	Trace.
Total ... ..	8.0

This table shows that the two chlorides which are the most important ingredients are present in the waters to the extent of, roughly, 0.63 grain per ounce. The chloride of magnesium is the most important ingredient and is probably unequalled in quantity by any other known European spring. In fact, it is perhaps the only natural water in which iron, magnesium chloride, and free carbonic acid gas exist together. I know of no other European spring which affords such a large percentage of magnesium chloride, and this property alone should make Châtel Guyon a famous health resort. The temperature of the different springs, however, varies considerably between the 64° of the Source Romaine, which is not much used, and the 95° of the Source Yvonne. The specific gravity of the waters is about 1004 and the quantity issuing from the various springs has been computed at about 500,000 gallons a day, and with this abundant supply it is obvious what a large number of visitors might receive the benefits of the waters, not only internally but in the form of baths. Indeed, the free supply of water fresh from the springs to the bathing establishments is one of the greatest desiderata in the treatment of the various patients who visit this health resort.

The experiments and researches carried out by Sir Lauder Brunton, Laborde, and others show that chlorides, whether of magnesium or of sodium (and the waters of this spa are essentially of this class) increase the activity of the muscular tissue of the empty viscera and of the secretions of the gastro-intestinal canal, as well as of those accessory glands which pour their secretions into it. These salts also exert a direct action on the involuntary muscular tissue, so that the gall bladder and biliary passages contract more vigorously and the more effectually discharge their contents. Hence this effect on the intestinal tube is slightly purgative at the time these waters are being taken, an effect which is not transitory but lasts for a varying time after they have been discontinued. A similar tonic effect on the muscular tissue of the heart is also most noteworthy and is spoken of later.

The waters, as may be inferred, are either (1) drunk, or (2) used for bathing purposes, or (3) used for the irrigation of the stomach, of the larger bowel, or of the vagina, according to the various maladies for which they are prescribed.

1. When taken by the mouth the quantity usually ordered by the local medical man is from half a pint to two pints per diem. When taken in this quantity they are found to restore the muscular tone to the stomach and the intestinal canal and to increase the various secretions which are poured out into this large area and also those of the liver and the pancreas. From the consequent augmented flow of bile and of pancreatic juice the bowels are freely evacuated though never purged and the intestine is in a measure disinfected. Consequently one meets at the various springs patients who have been sent to Châtel Guyon suffering from gout, plethora, habitual constipation, dyspepsia, and atony of the bowels. They include, on the one hand, people who have probably indulged too freely in the pleasures of the table, and, on the other hand, those patients whose sedentary occupations predispose to obesity and whom we send to Carlsbad or to Harrogate. In larger doses (from two to three pints daily) the waters are distinctly purgative. But the effects of these waters are by no means limited to the alimentary system. They produce great changes on the urinary tract. Indeed, from personal experience I am inclined to think that their action on the urinary system is their most marked feature. After a course of the waters not only is the desire to micturate increased but the expulsive power of the bladder is restored, the quantity of urine is greatly increased, its specific gravity is diminished, apparently by cleansing the system of any accumulation or

any excess of uric acid and urea, whilst the chlorides are diminished. In addition, I learned from the notes of our medical *confrères* practising in the town that albuminuria is lessened, especially that form which is secondary to diseases of the heart and lungs. These beneficial results would appear to be due principally to the tonic action of the waters on the involuntary muscular system. They have also marked effects on the cardio-vascular system. Not only are the cardiac centres stimulated but the heart muscle itself is strengthened and the systolic thrust is made more vigorous, whilst the pulse-rate is slightly accelerated and its tension is increased. Hence all forms of œdema, and also albuminuria, due to cardiac defects, especially such as are secondary to dilatation of the heart or degenerative changes in its muscular walls, derive extreme benefit from a course of the waters. Indeed, I was so much struck with the potentialities of the springs in this direction that I have suggested to the authorities that they should, under the supervision of the local medical practitioners, train male and female attendants in the methods of administering the graduated exercises which are practised with so much success at Naumheim, Harrogate, and other spas.

2. The baths are also excellent. The original baths situated near the casino are being renovated and replaced by more modern apparatus so as to bring the treatment by balneological therapeutics thoroughly abreast of the times. The bath receptacle itself is of the ordinary shape but of somewhat cold appearance owing to the slight coating of iron oxide which is deposited by the water. Each bath holds about 500 litres or about 100 gallons. The water flows direct from the springs and if necessary its temperature can be raised, but the best effects are probably produced by the water in its virgin state. It flows freely through the bath which is thus practically renewed every four minutes, and hence the bather obtains the full results of the heavy charge of the principal constituents—namely, the chlorides, bicarbonates, and the free carbonic acid gas. On entering the bath the first sensation is rather depressing; this, however, speedily gives way to one of agreeable pleasure as the temperature of the water (33.5° C. = 92.3° F.) is that of a “warm bath.” It also affords a peculiar and characteristic oleaginous or velvety sensation to the skin and one feels as though one could easily float on the surface. After reclining a few minutes it is found that innumerable small bubbles of carbonic acid gas have adhered to the surface of the body, and these, increasing in size by amalgamation, finally become detached and rise to the surface. The effect of all this is to produce vaso-motor action. The capillaries are dilated and there is a sense of general warmth. This is more especially noticed on emerging from the bath after 20 minutes’ immersion, when the skin is reddened and there is a feeling of warmth and glow. But above all is the agreeable sensation of increased bodily activity and elasticity. A walk which prior to the bath would have seemed to be irksome is now taken with spirit and eagerness, whilst any previous oppression, or tiredness, or dyspnoea due to any exertion entirely disappears. The muscular system, both voluntary and involuntary, is braced up; there is an increased secretion from the kidneys and micturition is performed with vigour. The pulse is also increased in volume and tone.

3. In the higher part of the valley a new establishment has been built where, under the care of skilful and highly trained attendants, massage, rectal irrigation, and lavage of the stomach are administered. In the women’s department, which is quite isolated and distinct from the male section, there are skilled masseuses who carry out vaginal or rectal douchings which may have been ordered by the physician. From all accounts that I could gather lavage of the stomach is most efficacious in those cases in which dilatation is secondary to fermentation and other effects of bacteria. The carbon dioxide would appear to exert an antiseptic effect on the mucosa of the stomach, the secretion of the gastric juice is increased in quantity, in acidity, and in activity, whilst the appetite is markedly improved. Chronic cases of atonic dyspepsia appear also to derive extraordinary benefit. Irrigation of the colon is performed in a scientific method which is seldom practised in this country. The water is allowed to pass into the bowel slowly and continuously by force of gravity and measurements are carefully recorded and strictly adhered to according to the physician’s directions. If one may judge by the notes readily afforded me by the medical men practising at the spa and also by the large

number of visitors, rectal irrigation would appear to be most useful in those sufferers from corpulence and plethora in whom atony of the lower bowel is a distressing symptom. The local effect of these waters not only increases the natural expulsive power of the rectum but augments the circulation of the bowel generally, and is therefore especially useful in hæmorrhoids and in rectal (benign) ulcers. On the other hand, patients suffering from appendicitis run some risk apparently if they are subjected to rectal lavage at Châtel Guyon. Many cases even during the suppuration stage are sent to Châtel Guyon for cure, a step obviously fraught with danger. Cases even in the subacute stage run some risk and their advent is discouraged by the local physicians. I am not satisfied as to the action of the waters in appendicitis but it is evident that in many instances abscess rapidly forms, calling for urgent surgical treatment. Possibly the strong peristalsis which is set up by the water may stimulate renewed activity in the cæcum and appendix. It cannot be too strongly insisted that cases of appendicitis can only be sent to this spa after most careful consideration when active inflammatory trouble has long since passed away, and even then they should not be sent to Châtel Guyon with the idea of effecting a cure from the use of the waters. On the other hand, patients suffering from that obstinate disorder membranous colitis appear to derive the greatest benefit from treatment at this resort. The careful irrigation of the large intestine which is so systematically carried out there appears to produce excellent results. The topical action of the water would appear to produce antiseptics of the contents of the bowel and to increase its muscular tone.

Finally, the hotels are good and there are excellent apartments for those visitors who require privacy.

## MEDICINE AND THE LAW.

### *The Case of Frank Rodgers.*

A FEW weeks ago a shocking tragedy in Cambridgeshire attracted considerable attention owing to facts which were indisputable. A boy, 15½ years of age, intentionally shot and killed his mother. She was a drunkard who was intoxicated when he murdered her and he said when he was arrested that he had done it for the sake of his sister. There could therefore be no doubt that the mother's habits and the unhappiness and disgrace in which they involved her family had preyed upon the boy's mind, that he had formed the idea that to take her life would be an effective method of removing her and of thus benefiting his young sister who, as a boy of nearly 16 years of age would no doubt bitterly feel, must suffer from the presence and example of such a mother. He accordingly fired at her with a revolver well knowing what he was doing and having an object in view in doing it. In these circumstances there could be no dispute as to the act being murder or as to it having been committed by the prisoner, so that the only question which the jury at the recent Cambridge assizes had to consider was with reference to the state of the poor boy's mind when he aimed the fatal shot. There was nothing in his youth to excuse him and every person tried for crime is presumed to be of sound mind until the contrary is proved on his behalf. The evidence elicited on behalf of young Rodgers from the witnesses for the prosecution who were aware of the history of the family was to the effect that the boy was naturally an affectionate son and fond of his mother, that he had grown rapidly and was anæmic, and that he suffered from headaches and bleeding at the nose. It was also proved that his mother's intemperance had caused him acute distress and that her brother and uncle had been addicted to intemperance and had been insane. It was stated later in the case that her father had been intemperate. Medical evidence was given on the prisoner's behalf by Dr. R. Percy Smith and Dr. Charlton Bastian as to the result of their examination of him and as to the extent to which the family history referred to would predispose him towards mental unsoundness. Each of these witnesses admitted, what indeed was plain to all, that the boy knew what he was doing and meant to do it, but Dr. Bastian, in answer to a question put to him in re-examination, expressed the view that "the idea that he must put an end to the state of affairs at his home overrode all other considerations and prevented him from being able to tell right from wrong. There was an obsession of the prisoner's

mind which warped it like a delusion." In his summing up Mr. Justice Phillimore appears to have said that "it was suggested on the prisoner's behalf that he acted under an uncontrollable influence and this was a defence of which medical men were very fond; but the jury should be on their guard against yielding to it in most cases." The precise meaning of medical men being fond of a particular line of defence is not clear. Medical witnesses give evidence of what they believe to be the fact with regard to a prisoner's condition and it is then for the judge to direct the jury as to whether the condition thus indicated constitutes such insanity in point of law as will entitle the prisoner to be held irresponsible for his crime. The learned judge added, however, that other circumstances proved were in favour of the view that the prisoner did not know the nature and quality of his acts, these being his family history, his physical health, his rapid growth and weakness, his headaches, his bleeding at the nose, and his morbidness and languor shortly before the crime was committed. The jury found that the prisoner was guilty but was insane when he committed the crime, a verdict which was fully justified by the facts, and which might have been expected to be found in such a case upon less convincing evidence. The reports of the trial do not mention whether any observation was made at any time as to the presence of the revolver in the prisoner's home. Apparently it was borrowed from his brother and a more undesirable possession for a boy than a revolver it is difficult to imagine. In a house where one of the inmates is a drunkard or not of strong mind it is still more dangerous. There is an Act of Parliament which regulates the sale of revolvers but to what extent it is enforced actively throughout the country it is not easy to say. Crimes committed with the cheap pistol are still frequent and prosecutions connected with infringements of the Act, if they occasionally take place, are but rarely reported in the newspapers. And yet the Act provides the police with powers the exercise of which should tend to the prevention of crime, and although far from perfect it is by no means deserving to be neglected. In the absence of a pistol it is quite likely that young Rodgers would never have conceived, or would have been unable to carry out, his insane intention of ridding his family of the mother by depriving her of her life.

## ASYLUM REPORTS.

*Glasgow Royal Asylum, Gartnavel (Annual Report for 1903).*—The average number of patients resident during the year was 441, comprising 184 males and 257 females. The admissions during the year amounted to 154—viz., 71 males and 83 females. Of these 122 were first admissions. Dr. Landel R. Oswald, the medical superintendent, states in his report that the number of the admissions was the largest recorded for some years. All were private patients and 22 sought treatment voluntarily. Alcoholic excess was a prominent factor in the production of the insanity of a large proportion (29) of admissions, but other causes, such as the climacteric and adolescent periods of life, accounted for 17 cases and senile decay for six. A hereditary tendency to insanity or nervous disease was ascertained to be present in the largest proportion of cases (44 in number), "though it probably existed in a larger number though not so admitted by the relatives" of the patients. "I do not wish," continued Dr. Oswald, "to minimise the gravity of the fact that alcoholic excess is year by year being the direct cause of more and more insanity, that organic brain disease is becoming more frequent, and that old age is now, as never before, accompanied by such mental symptoms as to make asylum treatment necessary for the patient's safety; but it is obvious that to solve the problem of the prevention of insanity and the consequent reduction in the number of the insane, we must go further back and eradicate or modify the tendencies that lead to it, whether these are inherited or are acquired in childhood or early life. .... No one can work amongst those who are the subjects of mental disorder without thinking deeply and often on this subject of the prevention of insanity, and no one can see much of the child life in the poorer parts of a large city without believing that the possibility of the prevention of insanity might be largely brought about by influences brought to bear on them, I believe by their physical and mental education.