REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE
ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

A Modification of Roughton's Splint for Pott's Fracture.—Mr. SIDNEY R. SCOTT, B.S.Lond., F.R.C.S.Eng. (St. Bartholomew's Hospital, E.C.), writes: The accompanying illustration, supplied by Messrs. Down Bros., shows a modifi-

cation which I made about a year ago in Roughton's splint for Pott's fracture. Like Roughton's the splint is made of wood, and is shaped for the outer side of the leg and foot, the oval fenestrum being opposite the external malleolus. But instead of the leg and foot pieces being at right angles they form an acute angle equal to four-fifths of a right angle. In treating Pott's fracture it is taught, that after reducing any displacement, the foot should be flexed at right angles to the leg, an extended or everted position of the foot being avoided. To flex the foot so as to form an acute angle with the leg would appear to be even a better plan. For when the ankle is thus fully flexed the wider anterior part of the astragalus occupies the intermalleolar space, and thus presses aside any encroaching fragment which may be separated from the inner malleolus, and also prevents reparative material from narrowing the articular cavity. It was to carry out this principle that this splint was designed. The splint having been evenly padded the limb is fixed to it by strapping, and the tilting of the bottom foot piece maintains not only full flexion of the foot, but also inversion. Massage can be applied as the limb rests on the splint, the knee being well flexed to relax the tendo Achillis, and then, as Pott says, "everything will in general succeed very happily."

Treatment of Fracture of the Patella.—Dr. ASHLEY CUMMINS (Cork) has designed the instrument here illustrated, and

states that he has found it invaluable in the operation for fracture of the patella, by the direct method, because of the great facility with which the wire sutures can be passed. His method is as follows: The solid, curved bradawl is first passed through one fragment of the fracture and then withdrawn. The hollow bradawl, containing a stilette (to prevent the entrance of particles of bone) is then inserted through the passage made by the solid bradawl. The stilette is withdrawn, and the wire inserted about $\frac{1}{2}$ in., and the bradawl drawn out carrying the wire. The method is repeated on the opposite fragment of bone, the other end of the wire being passed $\frac{1}{2}$ in. into the hollow bradawl, which is removed, carrying the wire with it. The fragments of bone are then approximated and fixed in the usual way by twisting the wire. The instruments have been made by Messrs. John Weiss and Son, Limited, 287, Oxford Street, London, W., and Dr. Ashley Cummins finds them very satisfactory.

MEDICAL MAGISTRATE.—The Lord Chancellor has added the name of Dr. John T. Horron Davies to the Commission of the Peace for the Borough of Leicester.

A FRENCH RIVAL TO NAUHEIM: BOURBONLANCY.

By J. MCGREGOR ROBERTSON, M.A., M.B., F.F.P.S.G., F.R.S.E.

NAUHEIM needs a rival. In the ten years during which I have known it, its prosperity has gone on steadily increasing. During that time, too, the cost to visitors has become very materially greater. Yet, so far as I have been able to perceive, its guests have not profited thereby. Much money has doubtless been spent by the administration in the building of additional bathhouses to accommodate the ever-increasing numbers, in the equipment of a large inhalatorium for nose, throat, and chest affections, and in other ways, and by private individuals in the provision of hotels, villas, etc., to meet the demands for accommodation; but the individual invalid who goes to-day to have a course of its healing waters, enjoys no advantage that he could not have ten years ago. He gets no more now than he got then, but he pays more for it. Indeed he gets less, for the increase in bathrooms and in attendants is less relatively than the increase in visitors; so he finds it more difficult to get his bath at a suitable hour, he has less help from the attendants, and less comfort.

This is not as it ought to be. Nauheim's prosperity rests on a narrow basis. It is the rheumatic, the gouty, but above all, in recent years, the cardiopath, who bear up its prosperity. It is much less indebted than Homburg to the fashionable crowd; it will never be the resort of the mere fashionable visitor. It is stern necessity that drives the thousands to Nauheim, and so long as its magic waters spring foaming into the air, so long will they come from the north, south, east, and west, with panting breath and labouring heart to seek calm and restoration from its bubbling wells. It is right and proper that its park should be well kept, that its parterres should be bright and gay, that the most famous military bands of the empire should be brought to discourse sweet music on the Terrace. But, after all, these things, which are primary to Homburg, are but secondary to Nauheim. Neglect the flower plots, and banish the bands, yet still the cardiopaths of the civilized globe will set their faces annually thitherward. The invalid, therefore, has a claim here to derive benefits from increased prosperity which he has scarcely to the same degree elsewhere. The claim has been neglected. He has derived no advantage. This, it appears to me, is due to sheer bumptiousness and pig-headedness of the administration. "Bah!" I think I hear the ponderous officials of that bureaucracy say; "Bah! you people with hearts, you are bound to come here; you can't help yourselves; Nauheim is unique; it is a water-not-to-be-had-anywhere-else. If you don't come here you will die. Come, then, in your thousands; but since you must come, who is going to take the trouble to make it easy for you, or comfortable for you?" So you pay your money and you get a ticket, and after you have waited an interminable time your number is shouted, and you are shown to a room, and the water, the healing water you have come so far to bathe in, is turned on till a tub is full, and your attendant turns it off again and goes out banging the door to, and making your poor trembling heart jump again. He has shoved a towel into a hot jacketed cylinder, and when you have scrambled into the bath and lain there the ordered time, you may ring the bell, and if your attendant is not busy filling up simultaneously three other tubs in three other separate rooms, he may hurry to your room two or three minutes after you have rung. But it is not his business to help you out of that capacious tub with the high sides. Out of that you must scramble, even as you scrambled in; his only business is to throw the towel over you, give you a pat or two on the back, and rush away to do similarly for the others who have been ringing excitedly for him all the time. You proceed to dry yourself and then to dress, feeling all the time, that if now you could only lie down quietly in bed, how delightful it would be, while that sense of comfort that stole over you in the bath lasts. But you must get home first, and meantime a sharp shower has come on, and there is no droschke available. Nauheim has hardly awakened to the utility of bath-chairs. Ultimately you do get home, either after a chilling wait or breathless with the hurry and struggle with waterproof and umbrella, and you toil up to your room, for "the lift is not working," and drop panting at your bedside to take the hour's rest after the bath which is part of the treatment. You are an ignorant person, nevertheless you wonder how much of the benefit of the bath has remained to

you since you scrambled out of it. Every step of the way back you have been shedding it, you are well aware. Has no one in Germany been clever enough to suggest that that gulf between bath and bed might be bridged? How delicious it would be if you could be hoisted out of that tub, straightway wrapped in hot sheets and swathed in a dry blanket, and then borne gently to your bed, so that none of the virtue of that water might be thrown away. If you have been only to a German spa, you will say that is but a dream, a luxurious dream. But come with me, my friend, come with me to France. In Germany they may have the healing waters, but in France they have the perception, the sensibility, the adaptability. They hustle you through your bath in Germany, in France they conduct you through it as through a religious ceremony. Here, too, you pay, take your ticket, and fix an hour. At the appointed time you are waited upon in your chamber, are gently wrapped in a warm blanket, lifted from your bed, and placed in something like a sedan chair, and tucked round. A hood is raised over your head, the front drops down, and an apron is folded over from your knees to feet, so that you are wholly shut off from the outside world but for a square of gauze in front of your face through which you can see without being seen. Then the handles are fixed to your chair, and the bearers, one in front and one behind, carry you to your bathroom. Here friendly hands are ready to guide you down a gentle flight of steps, guarded by a handrail, into your bath, in which you sit as in an armchair. You may watch your own time if you choose, and ring the bell at your hand when it is up, but that is not necessary. You may safely leave yourself to the attendant, who in due season will come and politely invite you *à monter*, which you do easily with his help and that of the handrail if necessary. At this point your bearers have returned and have your chair ready. They wrap you up from the waist down in very hot linen, putting it close to your skin so that the moisture is absorbed rapidly, then you are enveloped in a warm bath gown (*peignoir*); the moisture is wiped from your face with a napkin, for you yourself remain perfectly passive in their hands. You are then gently assisted into the chair, over which a warm blanket has just been spread. The blanket is then folded over you, the napkin is tucked under your chin, the hood is raised, the front lowered, the apron folded over, and with the same gentle swing with which you are brought down you are carried back to your room, lifted into bed, carefully tucked in there also, and left with a courteous "*au revoir, Monsieur*," to be in a short time taken in hand by the *valet de chambre*, and sponged down before dressing. This is the luxury of bathing, of which a German *Bade-Direktion* knows nothing, but which you will find not merely in a brilliantly fashionable resort like Aix-les-Bains, but even in out-of-the-way bathing resorts in France whose names are hardly known in Paris and are totally unknown in London.

If Nauheim could adopt such methods what a heaven it would be to the gasping, pallid, wheezy cardiopath! But it seems as if the need of such consideration for the sufferers who throng its hotels and pour wealth into its coffers would take many years to dawn upon its slow consciousness, and it seems to me the thought that its waters are unique, that no place can really rival them, that sufferers are compelled to come, however indifferently their comfort is looked after, has something to do with the primitiveness and almost rudeness of the methods as compared with those of a French spa.

So I say Nauheim needs a rival, a French rival by preference. Then, besides bigger bathhouses, Nauheim would wake to the need of more attendants and more attention—much more attention—would alter its taste in bathtubs, would discover the utility of bath-chairs, would insist on transporting from the bath to his bed at least the heart sufferer, if not the rheumatic also, and would, I am inclined to think, make it worth while for one of the multitudinous scientific toilers of the Fatherland to devise some method more up-to-date than the antiquated though comfortable sedan chair. If Nauheim sprudel continues to spout into the air for another half century as it has done to the knowledge of men for three centuries already, it is not difficult to predict what will happen. In all the leading hotels lifts will pass up to open on the roof. From these strong lines will pass to the various bathhouses, to a lift also opening on the roof of each. The patient will be lifted from his bed and tucked into a glorified kind of sedan chair, in which he will be wheeled to the lift, raised to the roof, and then gently swung down a rail to the appropriate bathhouse, to be returned when his bath is over by a similar aerial track. This method will, to the heart-patient of that

day, be less of a wonder than was an express train at 80 miles an hour to his grandfather, or the mono-rail to his father.

My search for a rival to Nauheim took me four years ago to Bourbon-Lancy in the Department of Saône-et-Loire. I was led thither by having read a brochure by the then consulting physician of the baths.¹ I was hospitably received at the Etablissement Thermal by the Director, who conducted me over the whole establishment, showing me all the facilities for treatment, and I had a brief interview with Dr. de Bosia. That the facilities for treatment were abundant and the arrangements admirable was quite clear, but it was impossible to come to any opinion of the therapeutic value of the water as a result of a mere flying visit. Various circumstances beyond my control delayed my return on a more prolonged visit till two years ago, when I spent a fortnight there in company of two friends, patients also, one of whom had already spent three seasons at Nauheim, to whose waters he attributed his continued existence. Bourbon-Lancy is reached in $7\frac{1}{2}$ hours from Paris, and might be reached in two hours less if the number of travellers made it worth while. The Bourbonnais line is followed as far as Nevers, then a branch line is taken to Cercy-la-Tour, and another from there to Bourbon. It lies at an elevation of 223 metres.

Bourbon must have been a famous resort in the days of the Caesars, after whom its principal bath was called *bain des Césars* or *bain royal*. It was the Romans who enclosed each of the five springs with massive walls, built of blocks of white marble. The walls, which are circular, rise a foot or two above the surface. Those of the chief spring are over 13 ft. in diameter, narrowing as they descend to a depth of some 20 ft. into the earth. All the wells are of similar construction, though varying in diameter and depth. The surface is open to the air, and, leaning over the low wall, one may watch the multitudinous bubbles of gas, great and small, that keep the surface bubbling like a witches' cauldron. This gas, however, is, according to Glénard, nitrogen to the extent of 89 per cent. The following table gives the details of chemical composition and temperature of the three chief springs, according to the most recent analyses, that of Willm, 1891, in parts per 1,000:

	Le Lymbe.	La Reine.*	Descure.†
Carbonate of calcium	0.2018	0.2070	0.2007
" magnesium	0.0069	0.0072	0.0092
" iron	0.0026	0.0016	0.0017
" manganese	Traces	Traces	Traces
" sodium	0.0112	0.0008	0.0133
Chloride of sodium	1.2841	1.2839	1.2796
Bromide of sodium	0.0077	0.0067	0.0538
Sulphate of sodium	0.0506	0.0887	0.0815
" potassium	0.0901	0.0035	0.0035
" lithium	0.0035	Traces	Traces
Iodides, chlorates, borates	Traces	0.0005	0.0005
Arsenate of sodium	0.0005	0.0686	0.0674
Silicon	0.0700	0.0031	0.0090
Organic matters	0.0104	0.0031	0.0090
Total solids in 1,000 parts at a temperature of 150° C.	1.7394	1.7290	1.7202
Carbonic acid gas:			
In combination as bicarbonate	0.1961	0.1938	0.1990
Free	0.0425	0.0302	0.0223
Temperature, in degrees centigrade	56.5	52.5	57.7

* After Louise de Lorraine, wife of Henry III.
† Or Cardinale, after Richelieu.

The other springs are Marguerite, or de Valois, after the first wife of Henry IV., and St. Léger, after the ancient church of one of the suburbs of Bourbon. The temperature of the former is 47°, and, while its composition is very similar to the others, it is slightly richer in saline constituents; of the latter the temperature is the same, but it contains less mineral matter.

All the springs are used for bathing. Some of the superabundant water is conveyed to two large circular basins in the same courtyard of the establishment in which the springs rise and there allowed to cool. It is used to reduce the temperature of the baths to the ordered degree.

Le Lymbe, Descure, and especially La Reine, are the waters which are also used for drinking. They are not unpleasant to the taste, somewhat insipid, with a faint suggestion of the chicken or veal broth flavour of the famous Wiesbaden

¹ *Trattement des Maladies Chroniques du Cœur et des Vaisseaux par la Baignade Thermale chlorurée Gazeuse*, par Le Docteur H. de Bosia.

spring. Descure is very slightly aperient. They are all well borne by the feeblest digestion.

The treatment in regular use at Bourbon consists principally, (1) of drinking the water, (2) of full baths, (3) of douches, (4) of mechanotherapy, and (5) of massage.

1. I have already said the spring chiefly used for drinking is La Reine, of which three to four glasses are taken per day (600 to 800 grammes), the first immediately on the patient issuing from the bath and before being carried off, the second half an hour before déjeuner, the third half an hour before dinner. It usually induces and maintains a well-marked diuresis after the first few days. Descure is used if a slightly relaxing effect on the bowels is desired.

2. The full bath is taken in the morning at a temperature of 32° to 38°, and lasts from 15 to 35 minutes. Usually, indeed, the bath is, on the very first day, prolonged to 20 or 25 minutes, the temperature being 33° or 33.5°, and in later baths the tendency is to raise rather than lower the temperature.

3. There is a douche peculiar, so far as my experience goes, to Bourbon—a douche under water (douche-sous-marine). At the end of the ordered time for the full bath the attendant administers this douche to the patient still in the bath. The water issues from a hose-pipe hanging from the wall at the side of the bath. The hose terminates in a flattened narrow nozzle, from which the water issues in a band about 2½ in. or so broad (douche en lame or en lance). This is played upon the patient, the outlet of the pipe being under water as well as the patient. It is played on the extremities mainly, first in front, the patient lying more or less horizontally, perhaps also over the region of the liver, then behind, the patient lying on the face, and up the vertebral column and over shoulders and across the renal region and hips. The water issues with very considerable force, and is usually employed from 1° to 4° higher than that of the bath in which the patient is lying. The duration of the douche-sous-marine is usually five minutes. The sensation produced by it is most agreeable and soothing. It is a species of massage. It is on issuing from the bath that the patient is now enveloped in warm sheets, as already described, and after drinking a glass of water is carried to bed and left to perspire for from 15 minutes to an hour. He is then sponged down with cold water or perfumed spirit.

Another douche is to most patients given in the afternoon. The patient stands in the corner of the douching room, and a hose (douche en lame) is directed on him from the other end of the room at a temperature of 32° to 40° centigrade. It is played upon extremities and up and down the spine only, lasts for two to four minutes, and ends with a dash of cold spray all over and a hot hose at the feet for a few seconds.

4. At some period of the day the patient may have passive movements mechanically carried out in an annexe to the establishment, which is fitted up with apparatus on the model of Max Herz, of Vienna, or a course of massage. In some cases the massage would be given in bed after the morning bath. This part of the treatment is presided over by Dr. Krikortz, to whom I am indebted for repeated demonstrations of the marked therapeutic effects produceable at will by massage at the hands of a master. A patient's day at Bourbon-Lancy is thus fairly full—a full bath, with douche, in the morning, drinking water several times during the day, a séance of massage, and a douche in late afternoon. The course is continued from day to day—with perhaps one day's rest in seven—for three weeks, or, in special cases, four weeks, and is, as usual, followed by an after-cure.

It should be noted that there are also at Bourbon arrangements for the local application of the water or steam, varieties of sitz, douche, and needle baths, and inhalation rooms for pharynx, larynx, eye, ear, etc.

Now, the water of Bourbon-Lancy differs materially from that of Nauheim—so materially, indeed, that it is almost immediately evident that the *modus operandi* of the water at Bourbon cannot be the same as that of Nauheim. Compare the composition for a moment:

	Common Salt.	Chloride of Ca.	CO ₂ (free).
Nauheim, Spring No. 7	21.82	1.7	1.26
Bourbon, Le Lymbe	1.28	—	0.04
Temperature of Nauheim, No. 7	31° 6		
" " Bourbon, Le Lymbe	56° 5		

Elsewhere² I have shown that the Nauheim water acts (1) markedly on the peripheral circulation, reddening the skin, in spite of a temperature considerably lower than that of the body, and (2) reflexly on the heart, as proved by the marked slowing of the pulse, in spite of a lowered blood pressure, these effects being due to the very pronounced stimulation of the skin by the saline and gaseous constituents of the water. But the very stimulating chloride of calcium salt is absent from the Bourbon water, the quantity of gas is so little that the water newly drawn into a tumbler shows no sparkle, and even a very prolonged bath produces no sign of cutaneous irritation. Rather, indeed, has the Bourbon water a softening and emollient action on the skin due to the bicarbonates being, apart from chloride of sodium, the predominating form of salt present. Again in the progress of the course at Nauheim the temperature of the bath, usually begun about 92°, is gradually lowered to 89° or less, while at Bourbon it is usually begun about 94° and raised as the course proceeds to 96° or even higher. Moreover, the difference in the effect on the skin is marked by the fact that while as a rule the patient feels the bath at Nauheim cold on first stepping into it and in a minute feels comfortably warm, in Bourbon the bath feels pleasantly warm when one steps in, but after 15 or 20 minutes one is disposed to turn on a little hot water to maintain the feeling of comfort. There is no such marked effect on pulse or blood pressure in the Bourbon bath as in the Nauheim bath. In short, pronounced or rapidly produced effects are absent in Bourbon, just as one would expect from a consideration of the character of the water. Any slight increase of pulse-rate or greater fullness of pulse is obviously due, at the outset at least, to the temperature of the water rather than to its saline or gaseous constituents, while in Nauheim they are due to the saline and gaseous constituents, *in spite of* the temperature of the water.

Nevertheless it would be extremely foolish to assert that the barely 0.2 per cent. of saline ingredients of the water was valueless or inert. Valueless I believe they would be in a bath of short duration, but it is just here that one must emphasize the fact that the baths at Bourbon are prolonged, and prolonged as a rule to the comfort and satisfaction of the patient. It would be at this time of day extremely unscientific to assert that, apart from temperature effects, no effect was produced by the prolonged action of such baths, because it was not apparent to the eye or was not discoverable by the finger on the pulse. Those who have scoffed at the possibility of such effects have ignored, with a marvellous disregard of physiological facts, the enormous area of the skin, its great vascular capacity, its vast glandular power, and its closely interwoven sensitive network. A change in any or all of these mechanisms, so small as to be undetectable by such crude methods as those of eye or touch, or even by instruments of precision, such as arteriometer or sphygmomanometer, might yet in its summation over the whole area be of marked therapeutic influence. Without therefore attempting to apportion the amount of effect to be attributed to the temperature and to the chemical constitution of the water, one may state the effect of the bath to be (1) to induce to a greater or less degree a peripheral vaso-dilatation, (2) and an increased transudation from the skin; (3) on the whole they tend to lower the blood pressure by reducing the peripheral resistance; (4) on a normal pulse-rate there is no very obvious effect; at first a slight increase in the beats is likely to be observed. But on an abnormally quick pulse and irritable heart their action is ultimately distinctly calmate. The subjective effect is markedly sedative.

But while the credit of Nauheim may be permitted to stand or fall by the effect of baths alone, the treatment at Bourbon must be considered in its *ensemble*. In such a consideration one must take into the reckoning one other element that appears to me of the utmost importance—namely, the prevailing methods of employing the therapeutical resources of the place, and the degree of medical supervision and control exercised over the patient during the cure. I have already indicated the enormous value to the cardiac sufferer, and to the rheumatic, of the care taken of him at Bourbon, from his bed to his bath and back again. But this same care extended to other details of his treatment, and very notably to his diet. In the system that prevails there, drinking water, bath, douche, passive movements, massage, and alimentary regime are all regulated and combined towards one therapeutical purpose. This is rendered all the more easy of attainment

² The Natural and Artificial Mineral Waters of Nauheim: Their Physiological and Therapeutical Effects, and their Employment of Disease by the Schott Method. *Edin. Med. Journal*, 1901.

because the thermal establishment includes hotel as well as bath establishment under the same direction.

In Nauheim, on the other hand, except to those who can afford to go to one of the best hotels, the dietetic problem is a very serious one, so inadequate to this day is the recognition there of the therapeutic value—nay, necessity—of a carefully regulated diet. I am convinced that many, specially among the elderly, who go to Nauheim for relief of symptoms due to commencing, or already considerable, arterio-sclerosis, and in general the type of case associated with high blood pressure, fail to derive the benefit they might because of the lack of sufficient dietetic supervision, or, spite of supervision, because of the difficulty and expense of fulfilling medical requirements in this direction.

At Bourbon, then, I say there is a distinct, indeed an emphasized, recognition of the value to be derived from a systematic combination of the therapeutic resources of the hydro-mineral installation with dietetic measures, such as I have seen rarely equalled and never excelled, which makes this thermal station of enormously greater value to certain kinds of cases than could be deduced from the mere consideration of the degree of mineralization of its waters.

What, then, one might inquire, is the predominating therapeutic purpose? I think it may be put fairly shortly and yet fairly adequately thus: to improve general nutrition, by stimulating tissue change, by hastening the elimination, specially of nitrogenized waste, and by unloading the deep organs, and to lighten the heart's burden by increasing the circulation through the muscular system and the skin.

Thus the waters, when drunk as prescribed, while barely, if at all, acting on the bowels, produce a marked effect upon the kidneys and a slight effect upon the skin secretion, notably increasing the elimination of uric acid and also of urea in the former; the baths provoke an abundant perspiration, besides quickening and augmenting the peripheral circulation, and the temperature and duration of the bath as well as the method of employment of the douche-sous-marine are regulated to accentuate these results. These results are immediate and direct, and secondary to them are a sedative effect on the nervous system and an improved condition of the heart. It is impossible to say that there is any directly tonic effect on the heart, such as is so remarkable a phenomenon of the Nauheim bath. But, at any rate, one immediate effect on the heart of the combined action of the internal and external use of the water is the opportunity of recuperation denied to it so long as contracted arterioles offer excessive resistance to its work, and one secondary effect is the improvement in its nutrition which the cardiac muscle will enjoy, in common with the other tissues, by the increased activity of tissue change and the accelerated waste removal. And here enters the diet element of the cure, one main consideration dictating the selection of food being the avoidance of such as yield to marked extent the tissue toxins. In short, foods are selected which yield as little as possible of the waste substances whose effect is in the direction of vaso-constriction.

This discussion will have made it clear what type of heart case is particularly suitable for treatment at Bourbon.

1. The type of case which, above all others, demonstrates the value of the system adopted at Bourbon is the commencing or early stage of arterio-sclerosis, the condition to which modern French physicians apply the term "présclérose." If such a condition is to be cured it is not by the administration of drugs, but by such a system as is adopted at Bourbon, and the physician who will select such a case to send there will have a revelation of the value of physical agents in the treatment of vascular disorders. While the early case will exhibit the curative effects to the full, nearly all stages of arterio-sclerosis will find in Bourbon a greater or less degree of amelioration, so long as the kidneys are unimpaired. These were the cases supposed to be unsuitable for Nauheim. I do not think this was a correct view, though such cases require a very cautious use of the bath at Nauheim, and unless much more carefully supervised than is customary there, run considerable risks because of that want. By contrast Bourbon shines all the more in this respect.

2. A second type of case suitable for Bourbon is that of recent rheumatic endocarditis in the young subject. My own experience of Bourbon, which, though limited, has been eminently satisfactory, has been mainly of the former type, but the evidence seems conclusive that in this second type, after the usual methodical course of medical treatment and prolonged rest, a course of Bourbon treatment three or six months later is a most useful termination.³

³ See De Bosia, op. cit., and Piotot *La Cure Thermale de Bourbon-Lancy*, Macon, 1903.

3. A third type of case is that of functional disorder of the heart, palpitation, paroxysmal tachycardia, cardiac excitability, specially in comparatively young and nervous subjects. In these the calmative effect of the treatment is said to be very well marked.

4. The number of rheumatic and gouty cases treated at Bourbon is very great, but it is not necessary to do more than mention the fact, my main purpose being to consider the value of the place for cardiac cases.

5. Nor do I think it needful to discuss at length the value of Bourbon for cases of cardiac failure from overstrain, or for cases of valvular disease with deficient or failing compensation. It is quite true that the system I have detailed is capable, by aiding the peripheral circulation, of unburdening the heart, and thus to a certain extent ameliorating its condition. But these are the cases which yield the most brilliant results in Nauheim, just because of the directly tonic effect upon the heart itself of the richly saline and carbonated bath. The patient, therefore, who presented any of the conditions above stated, and who was capable of undertaking the journey from this country, who sought Bourbon rather than Nauheim would be seriously ill-advised.

If we take that great classification of heart maladies so constantly employed by Huchard⁴ and his pupils—cardiopathies which commence at the heart to finish at the vessels, and cardiopathies which commence in the arteries to finish at the left ventricle, then we might say that while Nauheim, in virtue of its waters, is pre-eminently the place for the former, Bourbon, in virtue of its system, might quite well claim to be pre-eminently the place for the latter. The *cardiopathies artérielles*, to use the French phrase, owing to the ever-increasing tension of life and the ever-increasing luxury of living, are becoming more and more numerous, their detection in the early stage, thanks largely to increasing accuracy in the physical methods of diagnosis, and particularly to clinical methods of detecting increased arterial tension, is becoming more and more easy, while all medicinal methods of treatment have been proved, on the whole, temporary or comparatively a failure. The knowledge of a thermal station where every physical and dietetic resource is combined with marked success to combat these vascular conditions seems to me of great value. That is the reason for the detail into which I have entered in this paper. I set out to seek a rival for Nauheim, it seems to me I have found a complement. Several patients whom I advised to take two or three weeks at Bourbon before proceeding to Nauheim have found the combination attended by the happiest results.

THE AMERICAN MEDICAL ASSOCIATION AND MEDICAL ETHICS.

At the annual meeting of the American Medical Association held in May last at St. Louis, Dr. ELLIOT HARRIS, of New York, presented the report of the enlarged Committee on the Revised Code of Ethics, consisting of the special committee and of one delegate from each State. It adopted unanimously the report entitled "The Principles of Medical Ethics of the American Medical Association," and recommended it to the House of Delegates for adoption. In submitting the paper with the title of "The Principles of Medical Ethics," which is to take the place of the code, the Committee offered the following explanation:

Your Committee has given extended and careful thought to the proposed revision of the Code of Medical Ethics referred to it for consideration. As you will note, on the caption of the report the word "code" has been eliminated, and the expression "The Principles of Medical Ethics of the American Medical Association," adopted as adequately descriptive. In reference to this change, it is proper to say that such action on its part is based on the idea that the American Medical Association may be conceived to occupy some such relation to the constituent State associations as the United States, through its Constitution, holds to the several States. The Committee, for this reason, regards it as wiser to formulate the principles of medical ethics without definite reference to code or penalties, thus leaving the respective States, etc., to form such code and establish such penalties as they may regard to be fitting and proper for regulating the professional conduct of their members, provided, of course, that in so doing there be no infringement of the established ethical principles of the Association. The Committee regards as wise, and well calculated to facilitate the business of the present organization and to promote its harmony, this course, which leaves to the State associations large discretionary powers concerning membership and other admittedly State

⁴ H. Huchard; *Maladies du Cœur et des Vaisseaux*, 1893; *Traité des Maladies du Cœur et de l'Aorte*, 1903; *La Médication Hypotensive (Présclérose et Cardiopathies Artérielles)*, *Revue de Thérapeutique*, July 1st, 1903.