Winternitz states that the patients perspire profusely while in the cabinets, and the rapidity with which the perspiration sets in is specially insisted on by him. He says that after five minutes' exposure to the electric lamps profuse perspiration begins, although the temperature of the air in the cabinets is not more than 81° F.

Kellogg, of Battle Creek, U.S.A., made experiments with the same kind of apparatus in 1894, and arrived at the same results. He seems to have recognised that the effects noticed were mainly due to radiant heat, and compares the action of radiant heat from a source at a high temperature with that of the heat of lower grade which is employed in the hot room of a Turkish bath. Thus, he says the degree of perspiration obtained with an air temperature of 85° F. in the electric cabinet was equal to that produced in a Turkish bath at 106° F.

This comparison must, however, be imperfect in the absence of data as to the degree of humidity of the atmosphere surrounding the patients in the two cases. The atmosphere inside a small closed box is entirely unlike that of the hot room of a Turkish bath, which is properly ventilated and supplied with volumes of hot dry air. In spite of this objection, one may agree with the views of Kellogg and of Winternitz that the use of incandescent lamps as described does present certain advantages, namely, that the radiant heat penetrates the tissues more deeply, that the effect is more stimulant, and that perspiration is more quickly induced, also that the comparative coolness of the air about the patient is an advantage. It is uncertain whether the light emitted by the lamps plays an important part or not. Under the name of the "Dowsing radiant heat bath" an apparatus of a similar kind has lately been introduced in this country by a limited company, and establishments for the treatment of patients have been set up in London and in several provincial towns. The conditions which seem specially suited for treatment by radiant heat are just those which are relieved by the application of heat in other ways, such as rheumatic and gouty affections of the joints or muscles, sprains, myalgias, and other painful states. It does not appear at present that radiant heat has any special therapeutic properties which cannot be had from the older methods of applying warmth.

There is another contrivance for the production of heat electrically which is sometimes useful medically, and that is the electrotherm, which was noticed in the *BRITISH MEDICAL JOURNAL* for November 9th, 1895.

It consists of sheets of asbestos cloth interwoven with a fine wire, and enclosed in a cover forming a flexible pad about 14 inches square. When attached to a wall plug the current passes through the wire and warms it, the heat being regulated by a switch. For all conditions which can be relieved by the local application of heat it is admirable, and many such conditions will at once suggest themselves to the practitioner. In the relief of sciatica or lumbago I have found it useful. The electrotherm, with certain minor improvements, promises to be a useful domestic appliance as a foot warmer, or for any of the conditions now met by means of poultices, hot bottles, and the like. Its predominant merit consists in the fact that the turning of a switch is all that is needed to make it ready, and, when made ready, it goes on at full efficiency until switched off again. The defect of the electrotherm as at present made lies in the weakness of the fine wire with which it is fitted. This wire tends to become oxidised and brittle from the alternate heatings and coolings which it undergoes, and in time it breaks. If platinum wire were substituted for the german silver alloy now employed it would increase the first cost, but would give a durability which it lacks at present.

Another electrically-warmed appliance is the "Greville electrothermic generator."

It is heated by electricity. The heat is generated by electricity passing through wires, and not through lamps as in the radiant heat apparatus of Dowsing.

When their fragility is not an obstacle, incandescent lamps afford at once the cheapest and the most efficient of thermal generators. Messrs. Arnold and Sons are now working out with me the details of an electrically-heated operating table in which incandescent lamps supply the heat.

The body of the table has the form of an air chamber of metal, which may be divided into separate sections for convenience. Six or eight sixteen-candle power lamps enclosed in this chamber will rapidly raise an operating table to the required temperature, and half that number will then maintain the temperature at a proper level when the rest have been switched off. Wherever electric light circuits exist, this mode of warming an operating table would present decided advantages.

Some work has also been done upon the therapeutic effect of the light from arc lamps. For obtaining effects genuinely due to light as distinguished from radiant heat, the arc lamp should present great advantages by reason of the great intensity of its light, and of its richness in the more refrangible rays. The workmen in electric welding establishments, and in other places where they are brought into close proximity with arc lights, are apt to suffer severely from effects which very closely resemble those of sunburn, as experienced by mountaineers after exposure to the glare from

sunlit snow. From investigations which have been made by several observers, it appears certain that these effects are really due to light and not to heat. It does not seem unreasonable to believe that good results might follow a systematic course of treatment by the light of the electric arc; and especial advantages might be expected from it in anæmia, because anæmia so commonly occurs in people who are more or less deprived of light.

Dr. Margaret Cleaves² has lately written upon the therapeutic action of arc lamps:

She describes a cabinet for the reception of the patient with two arc lamps arranged outside so as to shine into the cabinet through glass windows which may be open or closed. The patient is nude, wears dark spectacles, and reclines on a couch between the lamps. She has observed an increase in the hæmoglobin and the red blood corpuscles after two weeks' treatment. Her chief attention seems to have been given to cases with chronic pulmonary complaints, such as phthisis, asthma, and bronchitis, in which she obtained results which seemed to show an immediate beneficial action from the electric light. In a case of psoriasis and one of eczematous ulcer the effect was prompt and good. She also quotes from Koslovski,³ La Touche, and Below. The former had his attention drawn to the subject from statements as to good effects noticed by workmen in electric welding works, and had obtained cures in 25 out of 38 cases, mostly neuralgia, sciatica, lumbago, and the like.

More extended observations are called for, and it is not unlikely that in time the arc lamp may take a place in therapeutics, particularly in the gloom and darkness of big cities.

Several independent writers have noted that the arc lamp, either by its light or by the emission of ozone or other vapours, has a very decided disinfecting or deodorising action upon noxious smells. Thus an arc lamp set up in a dark basement near offensive closets and latrines served to dissipate all bad odour completely from the place in which it was hung.

REFERENCES.

¹ *Aertzliche Polytechnik*, October, 1898. ² *New York Medical Journal*, January 28th, February 4th, 1899. ³ *Revue Internationale d'Electrothérapie*, April, May, 1896, and March, 1898.

THE JOINTS OF MAMMALS CONTRASTED WITH THOSE OF MAN.*

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LECTURE I.

In this lecture the temporo-maxillary joint, the clavicular articulations and the shoulder-joint were dealt with. In the temporo-maxillary the importance of the external lateral ligament was drawn attention to, and it was shown that the interarticular fibro-cartilage was absent in certain of the lower mammals. The varieties of the joint in the different orders of the Mammalia were explained. In the sterno-clavicular joint the presence and meaning of the meniscus were discussed, as well as the various modifications by which the clavicle is attached to the coracoid and acromial processes. In the shoulder-joint reasons were brought forward for believing that the middle gleno-humeral ligament is more or less well represented throughout the Mammalia, while the superior and inferior are peculiar to man. The coraco-humeral ligament is peculiar to the Primates.

LECTURE II.

The elbow, wrist, and hip-joints were dealt with in the second lecture. In the elbow the contrast between the arrangement of bones and ligaments in animals which use their fore limbs for support and those which use them for other purposes was drawn attention to. The utility of the orbicular and the oblique humero-radial ligament in various orders was described. In the wrist-joint the arrangements were seen to be very varied. Sometimes a septum dividing the joint into radial and ulnar compartments was found; sometimes a triangular fibro-cartilage was present, though more often it was absent or merged in the lower part of the interosseous membrane; its uses and significance were discussed in some detail. In the hip the various thickenings of the capsule were shown to be characteristic of the Primates. The ligamentum teres was followed throughout the mammalian class, and its various modifications studied with a

* Abstract of three lectures delivered before the Royal College of Surgeons of England.

view to deciding its meaning. Several extracapsular connections of it were especially interesting.

LECTURE III.

This lecture was devoted to the consideration of the knee and ankle-joints. In the former the low attachment of the internal lateral ligament was shown to favour rotation, and in the bat's knee, which is a perfect hinge, this ligament is attached just below the joint surface. The semilunar cartilages were traced through the mammalian class, and in a generalised knee it was seen that the external one is attached posteriorly to the femur. In the lower Primates the external semilunar cartilage was shown to be circular, while in the bat both of them are suppressed. The variations of the ligamentum mucosum were detailed, and its power of dividing the knee into two or three separate cavities pointed out. In the ankle the anterior fasciculus of the external lateral ligament was noticed to be practically a human characteristic, while the serial homology between the middle fasciculus and the dorsal ligament of the carpus was traced. The modifications of the ligaments in the ruminant ankle to ensure stability were demonstrated, and it was shown that the marsupials possess a semilunar fibro-cartilage between the fibula and the astragalus, and that this is probably derived from the external lateral ligament.

These lectures will be published later in the *Journal of Anatomy and Physiology*.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

CINNAMON IN INFLUENZA.

THE newspapers give us a dismal daily death-roll from influenza. My experience during the past five years leads me to believe that no patient, if promptly and systematically treated, need be on the sick list, even after a most severe attack, for more than five or six days at the very outside. The theory on which that treatment is based limits of space preclude me from at present discussing.

The drug I employ is cinnamon, either in a strong decoction or in tabloid form. I order half an ounce of decoction of cinnamon, or two tabloids, every half hour for two hours; then the same dose to be continued every hour till the temperature falls to normal. After the temperature has become normal the same dose to be taken four times a day for four days; the patient not to leave the house for twenty-four hours after the temperature has become normal; the treatment must be commenced within twenty-four hours from the onset of the attack of influenza.

In February, 1892, I commenced treating influenza in the manner above described, and all the cases so treated were out and about in two or three days. It so happened that every case was seen within a few hours from the onset of the attack. In the end of 1892 and spring of 1893 I treated a second batch of cases, for the most part without any good results.

Carefully reviewing my results, I began to perceive that they seemed to stand in some direct relation to the period of the disease at which the treatment had been commenced. So I determined to take twenty-four hours from the onset of the disease as a time limit, and to treat no cases with cinnamon where this time limit was overpast. Since the spring of 1894 I have invariably observed this time limit and have treated a large number of cases, and in every case so treated within twenty-four hours from the onset the patient has returned to his place in society within five days from the commencement of treatment, and in no case have I been embarrassed by complications of any kind. Recently I have attended a young lady for influenza, who was treated with cinnamon, though she was rather over the time limit, and she did not go downstairs till the seventh day from the commencement of treatment, but as she is within three weeks of her first confinement I do not consider that she has done badly. In those cases where the treatment has been commenced within four or five hours from the onset of the

attack I have found patients usually able to return to their duties within forty-eight hours.

The decoction is prepared by slowly boiling a pound of cinnamon *in vacuo* with a sufficiency of water till the fluid is reduced to a pint and a quarter, and can at present be obtained from Messrs. Woolley and Sons, Victoria Bridge, Manchester, or from Mr. Horsey, Chichester Street, Upper Westbourne Terrace, W. Messrs. Burroughs and Wellcome have also prepared a tabloid of cinnamon, two tabloids being equivalent to half an ounce of the decoction, and, as far as my experience at present goes, the tabloid seems to be quite as efficacious as the decoction.

My work during the past five years is summed up in the above bald statement. Should what I have said induce others to make a trial of my method of treating influenza, I trust they will do me the justice to follow the rules of practice that I have ventured to lay down.

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OBSTINATE HICCUGH.

I AM glad to learn the effect of nitroglycerine in these troublesome cases as related by Mr. R. W. S. Christmas, and will give it a trial at the next opportunity.

In 1892 I had under my care a man with catarrhal jaundice whose persistent hiccough resisted treatment which extended almost through the gamut of the *Pharmacopœia*. Even inhalation of chloroform only checked it when anæsthesia was complete, the spasm of the diaphragm returning unabated at the same time as the conjunctival reflex, and the patient finally died of exhaustion after a week of extreme suffering.

Last month Mrs. R., aged 60, during a severe attack of facial erysipelas commenced a hiccough so violent that the sound penetrated to all parts of the house, and as it persisted in spite of all ordinary remedies (including subcutaneous injections of morphine and atropine, and blisters over the epigastrium and phrenic nerves), and quite prevented sleep, I was forced to give a very gloomy prognosis. On the morning of the fourth day, finding the pulse almost imperceptible, I administered by the mouth half a drachm of pure ether in a little water as a cardiac stimulant, and was delighted to find the hiccough diminish almost immediately: two similar doses in the next two hours cured it completely, and she made an excellent recovery. Both nitroglycerine and ether are classed as antispasmodics, but that their effect is not due to their depressant action on the respiratory centres is apparent from the failure of the bromides, chloral, and other similar drugs to diminish the spasm. May not the singultus, then, be Nature's demand on the vasomotor centre for an increased visceral circulation? If this is the case we err by the administration of nervo-muscular sedatives, and should refrain from giving morphine.

Cricklewood.

STAMFORD G. FELCE, M.D.

DISPLACED LEFT MIDDLE TURBinate WHICH OBSTRUCTED THE NASAL PASSAGE FOR TEN YEARS.

THE patient, aged 29, consulted me in February, 1898, for persistent obstruction of the left nostril. He attributed his malady to blows on the nose received when playing football in boyhood.

In 1888 a surgeon removed some polypi from the left nostril with forceps. The operation was exceedingly painful, and the bleeding was profuse and protracted. His condition was not materially improved by this procedure. Subsequently another surgeon removed several polypi with the snare, and applied the electric cautery to the parts, affording some relief.

I found the obstruction of the left nasal passage to be almost complete. The anterior end of the lower turbinated body was readily seen, but no trace of the middle turbinate was visible, whilst over and about its position anteriorly the external wall was covered by a sessile myxomatous-looking growth. Further back this tissue was pedunculated, and presented the appearance of the simple mucous polypus. By post-rhinoscopic examination no polypi were observed, but what seemed to be the posterior end of the middle turbinate appeared to be much hypertrophied. Concluding that the