prominent, necessitating its being divided on the right side and pressed down into its place. The steps and mode of operation were similar to those in the preceding one. In this case, I feared that the immediate effects of the operation, and the interference with the infant's limited supply of breast-milk, might jeopardise its recovery; but I was careful to direct that all the milk drawn from the mother should be given to the child. The result was happily very satisfactory, for on the sixth day the infant was able to suck. It now sucks perfectly, and is thriving well. The cleft in the palate, I am able to state, is quite closed, no doubt by the continuous pressure of the united lip.

The first case adds one more to the few recorded instances of newly born infants successfully operated upon for hare-lip. The second shows that, within a few days after operation, an infant is capable of sucking. Indeed, the good results attending these two cases have encouraged me to bring the question of early operation before the profession.

FAILURE OF SALICIN AND SUCCESS OF COLD PACKING IN HYPERPYREXIA, IN A CASE OF RHEUMATIC FEVER.

By CLEMENT DARUTY, L.R.C.P. & S.EDIN.,

Extraordinary Member of the Royal Medical Society of Edinburgh; House-Surgeon to Leith Hospital.

IN a recent paper, by Dr. Cavalry, on the "Antipyretic Action of Salicylate of Soda", the following paragraph occurs: "I am not aware of any published cases in which salicylate acid or its soda salt has been employed in cases of fever, rheumatic or other, in which the temperature has reached or exceeded 107 deg.; but my reason for bringing the above case under the notice of the profession is, that it seems to show that we are now in possession of a most valuable remedy for hyperpyrexia, which is usually treated by the cumbersome and tiresome method of cold baths." Having had lately a case in my practice which bears upon this point, I think the occasion suitable for giving my notes of it. On October 14th last, I was called to see an out-patient, Jane L., aged 18, unmarried. I found her to be a strong well-developed young woman, of a dark complexion, complaining of agonising pains in her knees and hip-joints; hot skin, with a small amount of perspiration of slight acid reaction; and an axillary temperature of 101 deg. Fahr. She gave a history of sleeplessness, restlessness, and vomiting of food, after exposure to cold a few days previously. I diagnosed the case to be one of rheumatic fever, which was borne out by the subsequently shifting character of the pains, which afflicted all her joints in turn. Ten grains of compound ipecacuanha powder were ordered, to relieve pain and induce sleep, which she had not enjoyed for several nights; while, in addition, twenty grains of acetate of potash were ordered every four hours. On seeing the patient the following day, I found that she had slept for some hours, the pains were less acute, but the temperature and condition of the skin were much the same.

On October 16th, the temperature being still high, and the pain rather worse, I determined to try the effects of salicylate of soda, of which fifteen grains were ordered every four hours.

On October 17th, considering that the patient had had a fair trial of salicylate of soda, of which she had now taken about two drachms, with the only effect of raising the temperature, she was ordered to be removed to the hospital, where the case could be more closely watched under more favourable hygienic conditions than in her wretched home. Hot fomentations were applied to the painful swollen joints (the shoulder-joints were now the parts most affected). The salicylate of soda was continued, and a mixture of bitartrate of potash, lime-juice, and water was given as a drink, and ten grains of compound ipecacuanha powder towards evening, which had a good effect in relieving the pain and procuring sleep, as the night-nurse on duty reported a tolerably quiet night.

On October 18th, the temperature had risen this morning to 104.2 deg. Fahr. from 103.6 deg. Fahr. on the previous evening. Salicin was now tried in place of salicylate of soda, fifteen grains being given every two hours; but although benefit was hoped for from the change, the temperature stood at 103 deg. Fahr. at eight o'clock P.M., a very slight improvement on that of the previous evening. Cotton-wool had now to be substituted for the hot fomentations, as the patient could not bear even the slight movement necessary for changing them, so extremely painful were the joints.

On October 19th, the temperature was 104.6 deg. Fahr. The dose of salicin was increased to twenty grains every hour, without the slightest good effect, for at two P.M. the thermometer registered 107 deg. Fahr., while the pain was excruciating and the skin burning hot. Salicylate of soda and salicin having thus proved utterly

ineffectual in the reduction of temperature, while the state of the patient had become critical, I determined to have recourse to cold-packing. A bed was covered with a sheet of Macintosh cloth. Upon this was spread a blanket, wrung out of very cold water, in which the patient was closely enveloped; and another blanket, prepared in the same way, was laid over her. The pain seemed to be relieved almost immediately, as she said that she felt "nice", and in an hour the temperature had fallen three degrees. As the blankets had now become warm, fresh cold ones were substituted; and at 4.30 P.M., two hours after the first application, the temperature was as low as 101.6 deg.; at 5.40 P.M., it had still further fallen to 101.2 deg. The cold-pack was now discontinued, and the patient transferred to a dry warm bed, a hot bottle being applied to her feet. She soon fell into a sound sleep, and at 7.10 P.M. the temperature was 100.6 deg. At 8.40 P.M., unfortunately, it had risen to 101.6 deg., reaching 102.3 deg. at ten o'clock.

October 20th. The patient had passed a tolerably good night, and took her beef-tea and milk well, but the temperature had risen to 105.6 deg. The skin was very warm, and the joints red and swollen, but not painful. Salicin was again administered in twenty-grain doses every hour, in the hope of at least preventing any further rise in temperature; but at noon, the temperature was 105.8 deg.; and at 3.50, 106.8 deg., while the patient was imploring a reapplication of the cold. I, therefore, decided to acquiesce in her wishes; and at 4.5 P.M. the cold-pack was reapplied, with the beneficial effect of reducing the temperature to 102.2 deg. in about one hour, while at 6 P.M. it was as low as 100.6 deg. The cold pack was then discontinued. After about an hour, the temperature began to rise, and at 11.30 P.M. reached 104.4 deg., notwithstanding which, the patient felt well and free from pain, and slept well through the night.

October 21st. Temperature at 8 A.M., 104.1 deg., from which it gradually fell to 103.2 deg. at night. After this date, the case presented no special point of interest, the temperature gradually falling day by day till it reached the normal on November 2nd.

Throughout the case, there was no cardiac complication. The patient is now perfectly well.

Having had very good results in some other cases from salicin and its salts, I watched this case with special interest, as it seems to prove that the medical man must not trust to one course of treatment, but be prepared to fall back upon others which may appear too heroic for ordinary use.

THE ADVANTAGES OF ETHER AS AN ANÆSTHETIC: WITH A DESCRIPTION OF A NEW INHALER.

By LAMBERT H. ORMSBY, M.B. Univ. Dubl., F.R.C.S.I.,
Surgeon to the Meath Hospital, Dublin.

THE power of various substances to produce insensibility has long been known; and in all ages certain narcotic preparations have been employed to produce a more or less unconscious state so as to lull the pain during the performance of surgical operations. It is needless here to enumerate the different anæsthetics employed; their advantages and disadvantages are all doubtless well known. But what seems to interest the profession most on the subject in the present day is the vexed question, What substance have we that combines—1. Safety to the patient; 2. Rapidity in action; 3. Ease of application and portability; 4. Economy of first cost? On each of the following heads, I would wish to make a few observations.

1. As regards the anæsthetic safest to the life of the patient, few operating surgeons cannot but be aware of the startling fact that week after week, in the columns of the various medical journals, their attention is arrested by a paragraph headed "A Death from Chloroform"; and, taking into consideration the number of deaths attributable to the use of that drug that are never recorded which occur in private practice, a high percentage of mortality must of necessity exist. And even surgeons of lengthened experience who are wedded to the use of chloroform, and who believe that there is no danger in it when properly administered, because they were fortunate enough never to be present at a fatal result during the administration of the drug, must, however, have seen hair-breadth escapes, when dangerous syncope, pallid cheeks, imperceptible respiration have resulted, and the patient only recovered from the jaws of death by the use of artificial respiration, galvanic battery, ammonia, inversion, and other means resorted to during those apprehensive moments: a time of the most painful anxiety to the surgeon, to say nothing about the delay in the operation, the appearances to the attendants, friends, etc. Such consequences,

I say, occur sufficiently often to allow all to be conversant with the fact that, no matter whether a stethoscopic examination of the heart reveals that organ to be free from organic disease, still there is danger; and, from the number of deaths recorded from time to time, the most bold and skilful operator cannot be blind to the fact that in many cases the anæsthetic drug he uses is more dangerous to the patient than the knife he efficiently wields in the interest of surgery. From all that has been written and said on the dangerous effects, my opinion is, that surgeons are not justified, without very good reason, in using such a drug that has been proved to be the most dangerous of all anæsthetics. This fact, I am aware, has been proved by means of statistics, and we all know that statistics occasionally lead to erroneous conclusions in the abstract; but they are the best means we have of forming an approximately correct idea, coupled with an individual recollection of some hair-breadth escapes and fatal terminations resulting from the use of chloroform; and the following statistics, which were proved by the late Professor Morgan of Dublin to be correct, show the relative danger of each agent.

	Deaths.	Inhalations.
Ether	4 to	92,815 or 1 in 23,204
Chloroform	53 to	152,260 or 1 in 2,873
Mixture of chloroform and ether	2 to	11,176 or 1 in 5,558
Bichloride of methylene.....	2 to	10,000 or 1 in 5,000
Nitrous oxide	Not given.	

From the above table, we learn two facts: 1. That chloroform is the most dangerous anæsthetic (of those in ordinary employment) that we could use; 2. That ether is about eight times safer, and proved by the same table to be the safest of all anæsthetics used in prolonged operations.

As regards the advantages of ether, I may mention that I have given it with success to patients varying in age from three months to eighty years in both sexes, and for surgical operations of the most varied nature, comprising deligation of arteries, amputations, delicate ophthalmic and prolonged dental operations. I have kept a young man of twenty-two under the influence of ether, for my friend and colleague Mr. Porter, Surgeon to Her Majesty the Queen in Ireland, for three hours and forty-five minutes, during a prolonged and bold operation for the successful removal of a large pulsating aneurism of the scalp. For my colleague Mr. Macnamara, I have kept a patient for one hour and ten minutes under the influence of ether, during the successful deligation of the subclavian artery in its third stage for aneurism. In this patient, the respiration was considerably impeded by the disease, and yet the ether acted perfectly, with the happiest results.

2. What anæsthetic is rapid enough in action to be universally adopted? In over a hundred ether-inhalations that I have taken the trouble to tabulate, I find the average time requisite for complete anæsthesia to be produced was two minutes, sometimes less, sometimes more, but in nearly all under three minutes. Few chloroformists can boast of better results. I have administered nitrous oxide gas, and taken it myself; and its action, I am willing to admit, is very rapid and very pleasant, but its effects pass away just as quickly, and are quite inadmissible for prolonged operations of any kind, dental or otherwise.

3. What anæsthetic is convenient as regards portability and application? None more so, I answer, than ether. When kept in a properly stoppered bottle, it is safely carried, occupies a small bulk, and is not liable to spoil; while the inhaler that bears my name can be carried in a remarkably small space, sufficiently convenient in size to be carried in the pocket of the administrator. This, I may mention, is of some importance, for the bulk and unportability of some inhalers have been the insuperable obstacles that prevented them from being more generally adopted. In private practice, this was the great objection to the late Mr. Morgan's inhaler; notwithstanding such disadvantages, however, it has been extensively used in Ireland, England, and America. There is one point, however, which must be borne in mind, that writers in favour of ether have not sufficiently alluded to, and that is the great inflammability of the ether-vapour when brought into contact with flame; and I have seen surgeons who have had to operate at night use reluctantly chloroform instead of ether for that reason. This danger is well to remember; but, with ordinary care, no untoward result may be anticipated, for, by using an inhaler that prevents the ether from escaping, the danger is at once obviated; also, the flame must be brought in actual contact with the condensed vapour before it will ignite.

4. What anæsthetic combines economy of first cost with the three preceding advantages? Many of the efficient forms of ether-inhalers that have been suggested have received less attention than they deserved, owing to their complication, the quantity of ether consumed in each inhalation, and lastly their price, which varies from four to ten guineas, to say nothing about the unportability of the apparatus. Ether is sold

on an average at 4s. to 5s. per lb. wholesale, or by retail at sixpence an ounce. The quantity used may, in many cases, be nothing to large institutions; but, in the Army Medical Department, and other places where every sixpence of expenditure is tabulated, this may be of some importance. In the *impromptu* manufactured contrivance, with a towel made into the form of a cone with a hollow sponge in its centre, I have seen six or seven ounces of ether poured again and again during one inhalation with imperfect results, air over-diluting the vapour, and the ether at the same time running over the patient's face while the operation was performed and completed, when the patient was merely intoxicated, not anæsthetised.

I maintain, that the one principle that should be kept in view in successful ether-inhalation is to shut air off as completely as possible, and allow the patient to breathe and rebreathe the air already in the lungs. At each respiration, about 25 to 35 cubic inches of air are expired into a thin India-rubber bag, which holds a little more than the ordinary tidal air, so as to make an allowance for any extraordinary expiration. In this bag the condensed ether-vapour is enclosed, which is very soon warmed by the heated air from the lungs, and the vapour is thus prevented from producing any irritating effects on the larynx and air-passages, such as coughing, etc., which cold ether is known to produce. With such an apparatus, which I have been using for the last nine months, I have, with a single ounce of ether, been able to produce complete anæsthesia in less than two minutes; and with children I only use half an ounce of the drug to produce the same effect.

Annexed is a woodcut, which gives a fair idea of the inhaler during administration.

This inhaler has been adopted in many of the leading hospitals in

Description of Inhaler and Directions for Use.—It consists of: No. 1. An India-rubber flexible bag, covered over with a network to prevent undue expansion during expiration. No. 2. A soft metallic mouthpiece, which allows of adaptation to any face, the soft metal being able to be bent into any shape; along the border applied to the face it is lined with India-rubber tubing, in order to fit more closely, and thus prevent the ingress or exit of air. No. 2 represents a simple sliding valve, so as to admit air if required, or allow its escape if necessary. In the body of the inhaler there is a cone-shaped wire-cage, into which fits a similarly shaped hollow sponge, into which one ounce of anhydrous anæsthetic ether, specific gravity 0.723, is poured, and the inhaler is then ready for administration. If it be necessary to give more ether in a prolonged operation, at fig. 2 there is a tube passing down to the centre of the sponge, into which the ether can be poured without raising the mouthpiece from the face. At first, it is advisable to allow the small aperture at fig. 2 to remain open for a few moments, when it should be closed, so as to allow the patient to breathe and rebreathe the same ether-charged air, until complete anæsthesia is produced.

Dublin, viz., the Meath Hospital, the City of Dublin, Dr. Steevens's, and by Mr. Stokes of the Richmond Hospital. When last in London, by the kindness of Mr. Christopher Heath (and I take this opportunity of returning him my best thanks), I was permitted to demonstrate its use on a patient of his at University College Hospital, and have since received the following letter from Dr. H. Radcliffe Crocker, Administrator of Anæsthetics to the Hospital.

"University College Hospital, London, January 12th, 1877.

"Having had an opportunity of seeing Dr. L. Ormsby administer ether with his inhaler in a case at this hospital, I have much pleasure in stating that, while extremely simple, portable, and easily managed, it was thoroughly efficient in its action, the patient being rendered completely insensible in two minutes, without coughing or unpleasant symptoms, while only a single ounce of ether was consumed in an operation occupying about ten minutes.

"H. RADCLIFFE CROCKER."

This inhaler has been made by Messrs. James Coxeter and Son, Grafton Street East, London, and they deserve my best thanks for the efficient manner in which they have carried out my directions as regards its manufacture, besides bringing it out at a very moderate price.

LESION OF THE SYMPATHETIC ON ONE SIDE OF THE HEAD.

By FRANCIS WARNER, M.D.Lond., M.R.C.P.,

Assistant-Physician to the East London Children's Hospital; late extra Acting Physician to the Children's Hospital, Birmingham; etc.

DR. BURNEY YEO'S interesting case of one-sided development of exophthalmos, and the discussion thereupon at the Clinical Society, suggested to me to publish the following case, where a lesion of the vaso-motor system, probably intracranial, produced excessive excitability on one side of the head.

Elizabeth R. came under my care on February 26th, 1876, as an out-patient at the Children's Hospital, Birmingham. The mother, a very intelligent woman, complained that the girl was subject to "fainting attacks and some cough". The patient was a healthy looking girl, rather pale, aged 11. She did not bear the aspect of the nervous temperament, but the mother considered her "rather nervous". When questioned, the girl complained of "headaches" and also a "feeling of numbness at the top of the head". The mother then said that she had noticed that, on excitement, *the right side of the face flushed up to the middle line* much more than the left side. The neck had not been noticed to flush. The following history was obtained.

The girl was apparently healthy and well till aged six years. Then, one day, after a hearty dinner, she went upstairs, and, on returning in a few minutes, was *suddenly convulsed*; she had general twitchings all over the body, no loss of consciousness; she knew all that was passing, and remembered it now. This convulsion lasted an hour. After this attack, there was no drowsiness, no vomiting, but she was fatigued. She was kept quiet a few days, but nothing more happened. In two or three days, the mother noticed the frequent flushing of the right side of the face, the left remaining pale. This she pointed out to the surgeon attending, and she had observed the same tendency ever since. She never had any convulsions but this.

She never had any "fainting attacks" previously, but since had been liable as follows. She was at times unable to speak; sometimes could not open her eyes; never struggled; the hands remained warm; she never bit her tongue. Before these attacks, the mother thought she was more liable to flushing of the right face.

On examination, when looking straight forward, the right pupil was widely dilated, the left of moderate size. The iris of the left eye was light brown, in the right uniformly much darker in colour. The mother had noticed this change of colour as something that had happened during the last few years. Both pupils reacted to light, but the right was much more sluggish; there were no signs of iritis; each eye reacted normally to atropine and Calabar bean. The power of accommodation was distinctly less in range in the right eye as compared with the left, but was not much impaired. There was no affection of any branches of the motor oculi nerve. The fundus was healthy and the circulation was equal in each eye. In these ophthalmic details, I had the advantage of co-operation with Mr. Lloyd Owen.

While talking to and examining the child, the right side of the face and ear distinctly flushed more than the left; and this difference was observable to the median line of the nose and forehead; to touch also the right was warmer than the left. There was no perceptible difference in the tongue on the two sides. The right hand felt warmer than the left. Both radial and carotid pulses were distinctly smaller to the touch on the right than on the left side, but the amount of this difference varied on different occasions.

There was slight drooping of the left eyelid; this the mother had always noticed in the child. There was no enlargement of the spleen. The thyroid gland was normal; the heart was healthy in every respect and acting well; the urine was normal.

The patient remained under observation about three months without undergoing any change to be noted. She was able to run about, but had occasional attacks as follows. One morning, her mother found her in bed not asleep, but apparently sleepy; she was unable to speak or move for some minutes, and the eyelids twitched much; when she got up, she complained of feeling giddy. Such attacks in the daytime never caused her to fall down.

As to treatment, she took bromides and belladonna, at other times

tonics, without any apparent effect. There appears here to have been a localised lesion of the sympathetic centre, a greater susceptibility of excitement in one set of vaso-motor nerves, and this lesion appears to have been a sequel of a series of convulsions six years before the time of observation.

THERAPEUTIC MEMORANDA.

TINCTURE OF ACONITE.

MR. HERBERT JONES has, in the BRITISH MEDICAL JOURNAL of March 3rd, 1877, published an interesting case bearing upon the use of the above tincture. I would supplement his valuable remarks by a few observations. "It is interesting to observe that the effect of this drug differs. It has been known to contract the pupil. In my case, the pupils remained widely dilated for nearly three days, showing that its power over the nervous system varies"—are his words. As he here stops short, I presume to offer a partial explanation of the varying conditions of the pupil. By the case which he cites, the drug was taken in one enormous quantity, and, as a consequence, *extreme symptoms* and almost mortal depression supervened. Of course, the pupil was widely dilated; not, I apprehend, from any specific agency of the medicine, but from its sudden depressant action, almost overwhelming. Now the same exactly holds good of opium and morphia, which in small doses will produce contraction of the pupil—a contraction that will continue even to death if the person be poisoned slowly; whereas, if by a suddenly overpowering large dose, the entire system is depressed, and, along with other manifestations of this condition, the dilated pupil obtains.

In April 1876, I had under my care in the hospital a girl aged 23, an epileptic, who showed an astonishing resistance to the power of aconite tincture, though prepared by one of the first chemists in London, and dispensed by our very careful dispenser. Here is the prescription:—*R. Tincturæ aconiti ʒ viii; potassii bromidi ʒ xii; syrupi ʒ iv; aquæ ad ʒvi. Sumat ʒiv ter die in aquâ.* An aconite suppository (half a grain) was ordered to be used every night at bedtime. No aconitism was produced, though this treatment was continued for weeks; nor was the epilepsy cured.

G. DE GORREQUER GRIFFITH, Senior Physician to the Hospital for Women and Children, etc.

TREATMENT OF RINGWORM BY CHRYSOPHANIC ACID.

HAVING only just seen the correspondence in the BRITISH MEDICAL JOURNAL on the above subject, I beg to state that I have had large opportunities of studying the treatment of Burmese ringworm, sometimes called "Malabar itch" (which, I presume, is the form of the disease alluded to by Dr. Foulis). Having served for some time in Rangoon, where it is remarkably prevalent at certain seasons, I there not only treated numerous patients suffering from it, but also had a most obstinate and troublesome attack of the disease myself.

I have only found one *certain* remedy, that being Goa powder. Cassia alata I have found useful in some cases, more particularly in the early stages, where the disease is circumscribed; but in other cases it is practically useless, and moreover possesses the disadvantage of losing its specific action during the rains, the very season when most required.

With regard to chrysophanic acid, I have never had an opportunity of using it by itself; but, as I believe that it has never been accurately determined whether Burmese ringworm is the effect of a vegetable or an animal parasite, I am unable to say how it acts (if it be the active ingredient) in Goa powder. Burmese ringworm has no marked effect on the hairs of the affected locality. In some cases where the powder was not procurable, I have found tincture of iodine, and also a fifteen to twenty grain solution of nitrate of silver, of use. Burmese ringworm appears to affect men more than women or children, as I can only call to mind one woman among many male cases in the course of two wet seasons, and have never seen children affected. It is quite non-contagious, and apparently is communicated by the bath-water (at that time of year very unclean, and containing large quantities of vegetable matter in suspension), acting on a skin already rendered prone to irritation by being constantly bathed in the profuse perspiration of a hot, damp, and relaxing climate.

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