tion arises, in the former case, due probably to a specific irritation of the entrance to the larynx; while in depressing emotion and the acute affections of the respiratory organs, we have the same results.

The first indication of treatment is, then, self-evident: it is to provide that there shall be no artificial obstruction to free respiration, that the dress shall not compress the throat, or impede the movements of chest or abdomen. That the air shall be pure and warm, so as not to excite reflex spasm by its contact with the tracheal or laryngeal surface. Cold water dashed suddenly over the head and chest will often put a stop to a paroxysm, or a cloth or sponge wrung out of hot water, and applied suddenly to the throat, or, if suffocation seem imminent, the finger introduced into the pharynx, may induce vomiting and relief. The warm bath is a popular and useful mode of treatment, and the vapour seems to have a soothing effect. If the case be severe and prolonged, the administration of chloroform may be useful, but it is to be borne in mind that this will cause some obstruction to the already over-burdened respiration. A preferable mode, if time permit, will be the administration of a starch enema containing from one to three grains of chloral-hydrate, for a child of 1 year. If there be any evident cause of reflex irritation, such as tense and swollen gums, they may be scarified with the lancet, for the relief which undoubtedly often follows is probably more from the effect of the slight bleeding than from any other cause. Ascarides or lumbricoides may be removed by the appropriate means; for the former I prefer rather copious enemata of quassia, followed by *lavements* of warm water, or, if there be straining, by a starch enema, to which may be added bromide of potassium, one to four grains, according to age. If there is reason to suspect the presence of undigested or indigestible food in the stomach, a stimulant emetic of mustard or ipecacuanha, or zinc sulph., may be given. If there be great turgescence and lividity of the face during the fit, and persisting during the intervals, the application of one or two leeches to the nostrils or temples is a practice which has been often beneficial, and which I should not allow any consideration of modern prejudice to induce me to omit, where the case seemed to me to require it. Such a practice, in the case mentioned, is consonant to reason and to pathological physiology; it relieves the turgid and overfilled vessels of the surface, and it reduces in some degree the amount of toxic matter in circulation, both of which are indications that must be advantageous to the patient. But though I say this, it must not be thought that I advocate depletion in these cases; they are, as I have said before, essentially the result of anæmia or malnutrition, and require nutriment and support. The usual measures of hygiene must be thoroughly carried out, and the diet suited to the age of the child; if it is of an age to take other than milk, the juice of meat, or raw flesh itself chopped, and mixed with a small quantity of salt, is often taken well, and of much value, in rickety cases; a teaspoonful being given twice or thrice a day in addition to other food. Lime-water in milk is useful sometimes, but cod-liver oil in doses not too large (the motions being watched and the dose reduced if the oil appears on the surface) has seemed to me of greater value. The clothing must be warm; flannel should be worn next the skin, and changed and aired night and morning; cold or tepid sponging should be employed; and, when the weather is suitable, frequent carriage in the open air, care being taken to avoid cold winds or any undue exposure. If the bowels are constipated, decoction of aloes, or aloin in suitable doses, will be found useful, and small doses of extract of belladonna (one-twenty-fourth or one-thirty-second of a grain), twice or three times a day, assisted by friction of the abdomen with castor-oil, are often effectual, even in obstinate constipation. The bromides of potassium or ammonium are very useful in these cases, the latter seeming to me to be preferable. They may be given alone or in combination with chloral-hydrate, and are well borne by children; one grain of the latter to three or four of the bromide may be given to a child of 12 months, every three or four hours, but they may be pushed, if required, much further. Occasionally the administration of a few grains of grey powder is useful, and, during convalescence, the ferruginous tonics. Musk is also very useful in these cases, in doses of one-third of a grain to one grain for a child of 12 months, and belladonna, previously mentioned for its use in constipation, is valuable as a respiratory stimulant, and is well borne, as much as fifteen minims of the tincture having been given three times a day to a child of that age. The diet of the young child deprived of its mother's milk is too long a subject to enter upon here, but it is in these cases of the utmost importance, and I must again impress upon the reader the fact that this is a disease of impaired nutrition, and that all means must be directed to the remedying of that evil, so that it may be, and sometimes is, advisable to administer stimulants in the form of brandy, and even, as in severe diarrhoea, which is not an infrequent accompaniment, narcotics, as opium.

REMARKS ON AN OUTBREAK OF SCARLET FEVER IN A SURGICAL WARD.

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THE outbreak of scarlet fever in a surgical ward, and its relation to wounds, is a subject of so much interest and importance, and about which we have so few statistics, that the following details of a recent outbreak at the Pendlebury Children's Hospital may prove instructive. The surgical ward is under the care of Mr. Wright, through whose kindness I am permitted to publish the following.

The hospital, which is situated in a remarkably healthy neighbourhood, four miles from Manchester, is a comparatively new one, and is built on the block system; the wards are large and the ventilation excellent, wounds, as a rule, doing remarkably well.

The above is a rough sketch of the plan of the ward, which shows more clearly than one can explain in words the position of the beds of the cases which were attacked with scarlet fever, the number of antiseptic dressings in the ward at the time, etc.

At the time of the outbreak there were twenty-seven cases in the ward, twenty-three with wounds and four without. Five of the cases with wounds had had scarlet fever previously, one of which was infected. Only one of the cases without wounds was infected, none of these having had scarlet fever previously. Of the six cases with wounds that got scarlet fever, only one was dressed antiseptically;

this was the first case infected, and had been operated upon two days previously.

The source of the outbreak was not known, and it followed no definite course.

Cases with Wounds that got Scarlet Fever.—CASE I.—Tommy E., aged 3 years, admitted June 19th, 1886, for congenital talipes, had not had scarlet fever previously. Various mechanical means having been tried unsuccessfully, on November 11th, under chloroform and spray, Mr. Wright removed a wedge-shaped piece of the tarsal bones from the outer side of the foot. He had a good night after the operation; temperature next morning 97.6°; it rose in the evening to 100.4°, and at noon next day he came out in a scarlet fever rash. Fauces injected. He had not vomited. Transferred to the fever ward.

CASE II.—Robert G., aged 3 years, admitted October 15th, 1886, for splint sores, had not had scarlet fever previously. November 13th: vomited; refused food; fauces slightly injected; no rash; temperature 99.6°; nothing remarkable about wounds. The temperature rose to 100.6° next day, and a scarlet fever rash appeared over forearms, chest, and abdomen. Transferred to the fever ward.

CASE III.—Richard B., aged 6 years, admitted August 31st, 1886, for morbus coxæ. Had not had scarlet fever previously. November 1st, hip aspirated under chloroform. On November 14th, vomited; temperature 101°. Fauces injected. Transferred to special ward. November 15th, temperature 102.4°; indistinct rash about left thigh; this became more marked next day, and he was subsequently transferred to the fever ward.

CASE IV.—Joseph H., aged 3 years 9 months, admitted October 25th, 1886, for otitis. Had not had scarlet fever previously. October 28th, incision over mastoid and scraped. He left the hospital on November 14th, his last temperature being 97.6°. Two days later he had scarlet fever.

CASE V.—Annie H., aged 6 years, admitted October 27th for morbus coxæ. On November 11th, hip aspirated. November 13th, sudden rise of temperature, 100.4°; fauces slightly injected. November 15th, transferred to special ward; evening temperature 104°; fauces much injected; no rash. Subsequently sent to the fever ward.

CASE VI.—William T., aged 7 years, admitted November 3rd, 1886, for morbus coxæ and phlyctenular ophthalmia. Temperature normal until November 24th, when it rose to 99.6°. Fauces congested, and distinct red papular eruption over feet, left thigh, and abdomen. Transferred to the fever ward.

Cases with Wounds that went wrong but did not get Scarlet Fever.—CASE I.—Robert D., aged 15, admitted July 10th, 1886, for synovitis of knee. Had scarlet fever when "very little." November 4th, under chloroform and spray, Mr. Wright "erased" the joint. He was much collapsed after the operation, and remained so for a few days, when he rallied, and went on well until November 20th, when the temperature rose from 98° to 103.8°. Fauces normal; no shivering; had not vomited; complained a good deal of some enlarged glands in the left groin; wound dry; no blush in neighbourhood of it. November 21st, temperature had fallen from 105.2° to 98.2°. Wound unhealthy looking, with a distinct blush running from the upper and lower parts, skin indurated and tender; headache, furred tongue, and diarrhoea. He rapidly recovered, and was discharged on December 7th. This was undoubtedly a case of erysipelas.

CASE II.—Lilly S., aged 5 years, admitted October 25th, 1886, for acquired talipes equinovarus. November 11th, under chloroform and spray, Mr. Wright removed the astragalus, when the deformity was easily corrected. Did well until November 19th, when she complained a good deal of her foot, and the temperature went up to 102.8° from normal. Fauces normal; no vomiting; no rash; glands in groin painful and enlarged. Very slight discharge from wound; no blush. November 22nd. In the last few days the temperature has ranged between 100° and 103°; wound unhealthy, edges swollen and indurated, union given way. Temperature down and steady; free discharge from wound; general condition much improved.

CASE III.—James P., aged 4, admitted November 6th, 1886, for morbus coxæ. November 11th, hip excised under chloroform and spray. November 15th. The wound never did well, and now presents a very unhealthy appearance. Temperature has been going up since the 13th, and is now 101.8°. Fauces normal; no rash. He subsequently did well.

CASE IV.—Florence S., aged 4 years, admitted August 3rd, 1886, for abscess about hip-joint. August 7th, abscess opened under spray; this continued to discharge, and, on September 29th, hip further explored, and a large abscess, encircling but not perforating the capsule, was found. She did fairly well for some time, when there was evidence of pus being pent up somewhere. A further examination under chloroform discovered, by rectal examination, an abscess on the pelvic

surface of the ischium above and close to ischial spine. This was evacuated by chiseling away a portion of the bone above the acetabulum, and forming the margin of the sciatic notch. She went on very well until November 18th, when the wound took an unhealthy appearance, and has remained in an unsatisfactory condition since.

CASE V.—Harry B., aged 4 years, admitted September 29th, 1886, for morbus coxæ. Hip aspirated on November 7th. December 1st, evening temperature 102°; no injection of fauces; no rash; he had not shivered or vomited. The track of the aspiration puncture had become inflamed, and the hip tense and shiny. December 7th, a pale but distinct papular eruption on back and abdomen; it was not typical of scarlet fever, but of a hybrid character, somewhat resembling the irritant eruptions frequently seen in connection with wounds. Temperature 105°; pulse 168; tongue covered with a thick white fur; tonsils enlarged but not injected. He went from bad to worse, and died from septicæmia on December 16th, the rash persisting until December 12th.

CASE VI.—Hannah T., aged 14 weeks, admitted November 2nd, 1886, for hare-lip and cleft palate. November 6th, plastic operation. Good union resulted, but the health failed immediately after the operation; the temperature gradually rising, and on the fifth day was 103.2°. She developed broncho-pneumonia, from which she died on November 15th. The day before death the fauces were noticed to be injected, and some hours before death a rash appeared on the body generally; it was of a light red colour, mottly, and of a measley character.

The only case without a wound that got scarlet fever was that of Jane W., admitted on July 13th, 1886, for cervical caries: she contracted scarlet fever on December 18th and died on December 20th. The mainly local action of the poison in five of the cases with wounds, none of which had scarlet fever previously, and all of which were dressed antiseptically, and again, the fact that only one of the cases with wounds that got scarlet fever was dressed antiseptically, certainly is strong evidence in favour of the antiseptic mode of treatment in some way or other checking the progress of the poison; possibly by preventing decomposition taking place in the wound.

The infection probably takes place through the ordinary channels, and the wound or seat of inflammation, being the weakest part of the organism, is chiefly affected, this taking place from within instead of without, as in the case of ordinary germinal infection. Cases with wounds certainly appear to be more liable to infection than cases without wounds. But why in some cases the scarlet fever should first appear—the unhealthy condition of the wound being secondary—while in others the poison has a mainly local action, I cannot explain.

Dr. Goodhart, writing on this subject in *Guy's Hospital Reports* for 1879, concludes that "surgical cases are more liable to be affected than medical cases, and operation cases most of all; at the same time, it is probable that the presence of any local inflammation in any part furnishes a bed for the cultivation of the poison, and that it is probably embedded through the ordinary channels of infection, and not through the wound."

Mr. Howse, writing in the same *Report*, says "surgical scarlet fever does not differ materially from the ordinary form when the cases are treated antiseptically. If in any respect we are to note anything, it is the very small mortality which attends them. The only explanation of this which suggests itself to my mind is that these cases do, in fact, get the scarlet fever from smaller doses of the poison than persons in perfect health."

ON THE TREATMENT OF FIBROIDS OF THE UTERUS BY ELECTRICITY.

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The Operation.—Dr. Apostoli does not pretend to make any innovation upon the current theoretical notions as to the treatment of fibroids of the uterus. While others with caustics, tents, scrapings, injections, incisions, ergot, and operations aim at renovating the mucous membrane of the organ, setting up a derivative process, bringing about a dissolution and absorption of the tissues, contraction of the tumour, and diminution of its bulk, with coincident relief of the attendant symptoms, he maintains that his way of gaining the same ends is by means simpler, easier, certain, and more exactly regulated. There is no mysticism about the matter. Others had essayed the electrical treatment, but not to their complete satisfaction. To account for this was a piece of plain reasoning. If such and such an agent were known to be able to produce such and such effects, and