VII. LESIONS OF THE CONNECTIVE AND MUSCULAR TISSUE.

Abscesses—Bed-sores—Carbuncles and Boils (Anthracosis and Furunculosis)—Felons (Whitlow, Paronychia)—Ulcers (Sores.)

ABSCESSES.

MR. GEORGE W. CALLENDER, OF LONDON, SURGEON TO ST. BARTHOL-OMEW'S HOSPITAL.

This surgeon recommends the treatment of abscesses by hyper-distension with dilute carbolic acid. The operation may be performed whilst the patient is under the influence of ether, or the integuments may be frozen by the ether-spray. The following are required: a scalpel where an incision is needed, no open sinus existing; carbolic acid lotion (one part in twenty) diluted to one in thirty by the addition of warm water before using it; a perforated elastic drainage-tube; carbolized oil (one in twelve) on lint, for dressing the wound, and gutta-perchatissue for covering this; some ordinary adhesive plaster; some tenax to receive any subsequent discharge (which, however, is very slight); an ordinary two or four-ounce syringe. When it is desirable to make continuous pressure over an abscess after opening it, a pad shaped to the needs of the case, and filled with shot, will be found useful. It acts more effectually than a sand-bag, and is easily made and adapted.

The operation is begun by cutting into the abscess (if no sinus exists), the opening made being of sufficient size to admit one of the fingers. The pus is then allowed to escape, the abscess being emptied as completely as possible. The nozzle of a syringe is next passed through the opening, and the skin is drawn closely around it by the operator with his left hand; the contents of the syringe are then passed into the abscess-sac. Care must be taken, in doing this, that no pressure is made upon the abscess-wall, or the distension of the sac will be incomplete. Either by using a syringe which throws a continuous stream, or equally well by closing the wound with a finger whilst the syringe (202)

is being re-filled by an assistant (very little fluid being lost by its reintroduction), the abscess sac will presently distend quite to, and even beyond its original size; and, under these circumstances, the carbolized water necessarily finds its way (as a rule, which has few exceptions,) into all parts of the cavity, however irregular, and along any channels leading from it. When the abscess has been opened, the amount of injection may be roughly measured as being rather in excess of the quantity of pus let out. When distension has been effected, the fluid is allowed to escape, and if much pus be mingled with it, a second injection may be practiced. An elastic drainage-tube, its size varying with that of the abscess, is then inserted and secured, and over the end of this, and over the wound, a piece of lint, twice folded and soaked in cabolized oil, is laid. This is covered with a sheet of gutta-perchat issue and some tenax, and these dressings are secured with some ordinary plaster.

Subsequent treatment consists in the renewal of the dressings, which it is desirable to see to daily. The drainage-tube is gradually shortened as the abscess-wall contracts, and through its canal, if there be any signs of puriform discharge, a little carbolized water may be occasionally injected.

DR. G. WERTHEIM, VIENNA.

This surgeon claims good results from injecting abscesses with various solutions, especially of morphia. (Wiener Medicinische Wochenschrift, No. 83, 1868.)

He punctures the abscess with a thick needle, or the canula of a Pravaz' syringe, and with gentle pressure empties the greater part of the pus. Then a Pravaz' syringe, with blunt canula, is applied, and the solution thrown in. The orifice is closed for a few minutes by pressure with charpie, and then iced cloths are applied over the abscess. The patient is then instructed to remove, by gentle pressure, every three hours, the remaining fluid; if necessary, the orifice or puncture may be kept open by the use of a fine probe occasionally. At first the injections are made every day, subsequently at longer intervals. It is better that the patient should remain in bed during treatment. The cold applications are continued with intermissions.

Of morphia mur. he uses at first gr. 1/7 in 8 drops of liquid; should two abscesses exist, the dose must, of course, be divided between them, with a slight increase. He has also used a filtered emulsion of camphor, solutions of cupri sulphas (gr. j-ij ad f. 3 j), chloride of lime

(gr. j-v ad f. 3j) and aqua creosoti; of these, twenty drops were injected two to three times daily.

The results of this treatment were as follows:

1. An immediate cessation of pain.

2. A decrease of the other symptoms of inflammation. Never were

local or general reactions observed.

3. Dilution of the thick exudation, reduction of its quantity, and in three to four weeks entire disappearance of the same. Cure without a scar.

4. The suppuration is also restricted to those parts in which it is found when there is general fluctuation of the abscess; for any surrounding hardness delays the cure, as the discussion of this requires considerable time.

RÉSUMÉ OF REMEDIES.

Belladonna, both externally and internally, is often effectual in dissipating threatened abscess. Mr. Christopher Heath has given cases in which it obviously prevented the formation of abscesses in the neck and elsewhere.

Carbolicum Acidum is used in solution of gr. x-xx to aqua f. 3 j, as an injection after evacuation. Also used by Mr. Callender for hyper-distension, (See

Hydrargyrum. Various preparations of mercury are used by plaster and inunction to dispel and prevent abscess. Of these the oleate is efficient and neat.

Iodinium in solution injected into the cavities of large abscesses after evacuation often proves very serviceable.

Phosphates. The phosphates of lime and soda are said to be useful internally to prevent the tendency to abscess. The dose is gr. j-ij twice or thrice daily

Potassii Permanganas, 3j to aque Oj, is a valuable injection to correct fetor.

Potassa Fusa. In using caustic potash or other alkali to open an abscess, pieces of plaster with a hole in them of the requisite size should be placed one over the other, and the caustic applied to the skin exposed through the hole. The caustic, slightly moistened, should be rubbed on the surface till it assumes a dull, bluish look, and the cuticle easily rubs off. The plaster may then be resumed, and the surface washed with vinegar and water to neutralize any remaining alkali. A poultice will help the separation of the dead parts and ease the pain. Mr. ERICHSEN prefers to open those abscesses with caustic where the skin is much undermined, congested and discolored. Professor Gross discards it for this purpose altogether. Instead of the potassa fusa, the Vienna paste is preferred by many.

> 233. R. Potassæ, Calcis. Alcoholis,

partes equales.

To make a paste.

It is milder in operation than the potash alone.

Sulphides. The sulphides of potassium, sodium and calcium have been warmly recommended by Dr. Sydney Ringer as preventive and curative in the tendency to large indolent abscesses.

> 234. R. Calcii sulphidi. Sacchari lactis,

M.

For one powder. Four to six daily.

He says any one who will give the sulphides a fair trial will be gratified

Tannicum Acidum. A solution of tannin has been used to inject into old abscesses to arrest excessive secretion.

BED-SORES.

The treatment of bed-sore is largely preventive. It is important, by the use of air-cushions and slight changes of posture to avoid long-continued pressure on the same part. In addition to this, the surface should be repeatedly painted with some preparation adapted to stimulate and strengthen the cutaneous vitality.

When the skin is once broken, the removal of pressure is imperative, and the system must be built up with nutritious food, stimulants and tonics. Locally, antiseptic and stimulating applications are required. The preparations most valued as preventives and curatives are given below.

PROF. THEODOR BILLROTH.

The surgeon should be constantly on his guard against bed sores in all diseases at all prone to decubitus. A well-stuffed horsehair mattress is the best sick-bed. The sheets placed over it should always be kept smooth, so that the patient shall not lie on wrinkles. As soon as any redness appears over the sacrum, the attendant should be doubly careful about the passage of urine and fæces, so that the bed should not be wet. A lemon should be cut and the reddened spot rubbed daily with the fresh juice from the cut surface. If there be excretion over the sacrum, the patient should be placed on a ring cushion, or else on a caoutchouc air or water-cushion. The excoriation may be painted with nitrate of silver, or covered with leather spread with lead plaster. If the sore be gangrenous from the first, and this begins to extend, we should resort to the ordinary treatment for gangrene.

M.

RÉSUMÉ OF REMEDIES.

- Alcohol, applied pure, or as whisky or eau de cologne, if used before redness occurs, will aid in hardening the cuticle.
- Alumen. A saturated solution of alum, with as much tannic acid added as it will take up, is one of the best preventives of chafing.
- Argenti Nitras. A solution of gr. xx to the ounce may be painted on the threatened but unbroken skin as soon as it becomes red.
- Balsamum Peruvianum. After the sore has formed this is an excellent dressing.
- Camphora. Tincture of camphor painted on the part is a good preventive.
- Carbo. Dry charcoal sprinkled thickly over the black slough which forms in a bedsore, hastens its separation and corrects the fetor.
- Emplastra. Lead plaster and soap plaster are used as protectives. They should be spread on very soft kid, and be not so thick or hard as to lose their pliability. They must not be allowed to crease or rumple. Professor Gross uses them rarely, as it is so difficult to keep them smooth.
- Glycerina, pure, or glycerine cream rubbed over parts exposed to pressure, after washing, morning and evening, is one of the best preventives.
- Hydrargyrum. Mr. Holmes recommend the bichloride of mercury, gr. ij to alcohol f. \mathfrak{F} j, for painting the part exposed, before redness or chafing appears.
- Iodinium. If the part is brushed once or twice a day with tincture of iodine, at first diluted and then pure, abrasion is often prevented.
- Iodoform. A healing application. The open sore should be dusted with finely-powdered iodoform, and then covered with oiled lint, or other bland applications.
- Myrrha and similar vegetable aromatics and astringents are used as preventives.
- Ricini Oleum. Equal parts of castor oil and balsam of copaiba make an excellent application to the sore.

Tannicum Acidum. See Alumen.

CARBUNCLES AND BOILS (ANTHRAX AND FURUNCULUS).

THE ABORTIVE TREATMENT.

DR. PETER EADE, OF LONDON.

This practitioner, in an article in the British Medical Journal, July, 1876, maintains that boils and carbuncles are specific parasitic diseases; that in their early stages they may be infallibly destroyed and aborted by destruction of their central stem or root; and that even after this stage has passed, they may generally be destroyed, and in all cases,

at the very least, greatly modified, by the free application of carbolic acid; and that to produce this result the acid must be freely introduced into the central portion of the disease, and also into any other part where an opening exists or is formed artificially.

The essentials for the proper action of the carbolic acid Dr. E. conceives to be:

1. The acid must be applied in strong solution:

- 2. It must be brought into contact with the diseased tissue, for it appears to exert no influence on or through the unbroken skin. To this end, if sufficient openings do not exist when the case is first seen, a proper one must be fearlessly made in the very centre of the disease by some appropriate caustic, and, perhaps, the acid nitrate of mercury effects this better and with less discomfort than any other.
- 3. The acid solution must be occasionally re-applied to, and into, the hole thus formed, or those already existing. He has found it a good plan to keep a piece of lint, wet with a weaker solution, constantly over the sore.

This abortive treatment of boils and carbuncles has been very highly commended by Dr. Theodore Roth, of Eutin, Germany. The pain is relieved in a few hours, and three or four days effect a cure.

A somewhat similar plan is that of M. Joli, who paints thoroughly the parts with the following:

Prof. S. D. Gross believes that it is seldom that a boil can be made to abort. He has, however, occasionally succeeded by a brisk purge, and the application of iodine. He prefers, however, to poultice the part, and make "an early and free incision." In many cases of carbuncle, he has found nothing so beneficial as a blister, large enough to include a considerable portion of the healthy skin, and retained until there is thorough vesication. Penciling the surface well with tineture of iodine, and then covering it with the following mixture, sometimes produces a very soothing effect:

237. R. Ol. terebinth., Ol. olivæ, Tinct. opii.,

CARBUNCLES AND BOILS.

Mr. J. L. ERICHSEN recommends that in the very early stage of carbuncle, when the disease appears as a small, angry, pointed vesicle, situated on a hard, brawny base, its further progress may often be completely arrested by opening the vesicle and rubbing its interior with a pointed stick of potassa cum calce or nitrate of silver.

The method by vesication is that employed by the Parisian surgeon, Jules Guerin. He teaches that the most efficacious mode of cutting short the progress of a carbuncle, and hastening its cure, is to cover the whole of the inflamed part with a large blister, having a hole in its centre to admit of discharges. The blister must be continued on until complete vesication has taken place, and any portion of the carbuncle over which this has not taken place will remain hard and resistant. When the blister has taken effect the pain is at once relieved, and the redness and resistance of the tumor disappear, and it becomes benign and inert, its enucleation proceeding under the use of ordinary means without the aid of the bistoury. When, after the discharge of its contents, a deep excavation remains, it is useful to apply to the walls a solution of nitrate of silver, with the object of obliterating the open vascular orifices, and impeding the absorption of the diseased liquid.

Dr. C. B. Hall, of Cincinnati, in the Cincinnati Lancet and Observer, December, 1873, gives the following prescription:

238. R. Tinet. arnicæ florum, 2 parts
Acid. tannic., 1 part.
Pulv. acaciæ, 1 part.

A fragment of lint wet with this mixture to be placed upon the boil and changed every fifteen minutes until a coating is formed. This causes the throbbing pain to disappear, diminishes the tension of the integuments, causes the abortion of the boil, or, if too late for that, hastens the separation of the core.

Some surgeons report favorable results from the early application of pounded *ice* to an incipient furuncle; while others extol the value of early and liberal applications of *mercurial ointment*.

GENERAL TREATMENT.

The general treatment of boils and carbuncles in their more severe forms, must, in nearly all cases, be supporting and hygienic. The surrounding should be salubrious, and a change of air is very desirable. All irritants of the skin must be avoided, such as cold baths, flesh-brushes, coarse towels, etc. At the outset, a moderate mercurial

purge is often extremely beneficial. When marked gastric derangement exists, an emeto-cathartic is advisable, as,

239. R. Hydrarg chloridi mitis, Pulveris ipecac., For one dose.

gr. x. gr. x-xx. M

This should be followed by free drafts of chamomile tea or infusion of valerian (GROSS.) This may be followed by bark, quinine and acids, with wine or porter. The urine should be examined for sugar, as it is not unfrequently present in these eruptions, and requires appropriate treatment.

Professor Harvey, of Paris, recommends the free use of tar water, about a quart a day, which may be drank mixed with a light wine, especially in furunculosis.

The internal use of arsenic has many advocates (see below.)

The propriety of using the knife in carbuncles, either by crucial incision, by subcutaneous sweeps, or by the total excision of the diseased structure, all of which methods have their warm partisans, has been seriously questioned and wholly rejected by such eminent authorities as Dumreicher, Billroth, Dittel, Le Gros, Clark and

SIR JAMES PAGET.

This last-mentioned surgeon entirely rejects the use of the knife, and even dissuades all administration of stimulants or medicines, except opium when needed to allay pain. He discountenances confinement to bed, or the house, holding that fresh air is very conducive to recovery, and that nothing is really needed beyond keeping the parts clean, and avoiding the contact of the parts with the neighboring integument. This may readily be accomplished by the application of any soothing plaster. He does not believe carbuncle is a dangerous affection, and thinks that the patients who have died of it really died either of the treatment or of some visceral disease which preceded it. (Clinical Lectures, 1875.)

PROF. S. D. GROSS

Considers that when anthrax has passed into a gangrenous condition, as shown by the cribriform and boggy condition of the tissues, there is no question but that free and deep incisions are demanded. The operation relieves the pain at once, and checks further extension of the morbid action. Caustics he considers far inferior to the knife. The

dead tissues may be removed with the scissors, and the surface of the ulcer touched with nitrate of silver. The wound may be cleansed by syringing with a weak solution of carbolic acid or other disinfectant; and when it assumes a healthy aspect it may be dressed with a mild ointment, as ceratum opii or balsam of Peru. An alterative course of iodide of potassium, not more than gr. ijss in the twenty-four hours, with general sanitary surroundings, will prevent the return of the disease.

MR. T. HOLMES

Prefers the use of the caustic potash to the knife. He has found it equally efficacious in relieving the pain, and checking the spread of the sloughing, without any drawback of either shock or hemorrhage, both of which are often serious in large carbuncles. When the skin has not given way, the potash is freely rubbed on till a slough has formed, or, what he considers the better plan, the skin is divided by the scalpel, and the caustic inserted. Small pieces should be put in the incision and allowed to remain there. He adds that it is many years since he has practiced the free incision of carbuncles, preferring the method here described.

MR. M. A. WARD, OF DUBLIN.

This surgeon, (Dublin Medical Journal, No. 69, 1877,) makes one incision about an inch and a half or two inches long, as the case may be, over the centre of the carbuncle, when the slough has formed, and from four to six counter-openings round the central one, varying in size from a quarter to half an inch. He then plugs the openings with strips of lint steeped in some stimulating application, and lays a poultice over all, dressing the carbuncle in the same way every day until all the sloughs have separated. The advantages Mr. Ward claims for this method are: First and most important, all the integument is preserved. Second, it has all the advantages of the mode of treatment by crucial incision, without any of the disadvantages. Third, there is almost entire freedom from hemorrhage. Fourth, the occurrence of a large suppurating sore is avoided. Fifth, sufficient space is afforded for the escape and removal of dead cellular tissue. Sixth, very slight cicatricial marking results.

DR. E. SCHNEIDER, OF BELGIUM.

This surgeon objects to the application of caustics on account of the

slowness of their action and the pain they cause. The eschar is often tedious in separating, and they implicate at times the healthy tissue. Their superficial action, he thinks, sometimes imprisons matter, the escape of which should be favored. The method he prefers is to incise the anthrax freely in different directions, slightly extending beyond the limits of the diseased action in both length and depth. He then promptly fills these incisions with lint dipped in a solution of perchloride of iron of 30° Dry lint, a compress, and a bandage moderately firm, complete the dressing. After twenty-four or forty-eight hours, the lint loosens, and shows a wound of good appearance, which proceeds promptly to cicatrization. There is no risk from hemorrhage, and no delay in checking the disease. (Journal des Sciences Medicales de Louvain, February, 1877.)

DR. O. FERRALL, OF DUBLIN.

The treatment of carbuncles, which, in the opinion of this gentleman, should surpersede all others, is that by *pressure*. Adhesive strips are applied concentrically, commencing at the margin of the tumor with narrow strips, overlapping each other slightly, until within half an inch of the centre, which space is left open for the discharge. Usually these strips will be found loosened in twenty-four or forty-eight hours. New ones should then be applied.

This method has been adopted by Prof. John Ashhurst, Jr., of Philadelphia, and other American surgeons, and they report that it relieves the patient of pain promptly, and cures in less time than incisions, while it also avoids the risks which accompany the use of the knife. Mr. S. Messenger Bradley, of Manchester, also believes that the cure of boils and carbuncles is expedited, and the pain is lessened, by such treatment. The simplest, and at the same time the most effectual method of accomplishing the pressure is by placing a piece of sheet lead, with a hole cut out of the centre large enough to encompass the base of the carbuncle, and then, by means of elastic straps and a lace, affixing it firmly to the part required. Any one can manufacture such an appliance in a few minutes, the size of the lead sheeting and the length of the straps, of course, being proportioned to the size of the tumor and the part of the body to which it is to be applied.

DR. JAMES GREY GLOVER, OF LONDON.

This writer, in the Practitioner, January, 1870, disapproves both of

CARBUNCLES AND BOILS.

213

incision and the administration of stimulants in carbuncle. The medical treatment he recommends is:

240. R. Quiniæ sulphatis, Tinct. ferri chloridi, This amount thrice daily. gr. ij. m x-xv. M.

A grain or two of opium, if called for to give rest, should be exhibited every night. The diet should be good and nourishing.

Beef tea, milk, and a glass or two of wine daily, are allowed. Locally he uses,

241. R. Unguent terebinth.,
Adipis,
This is applied over the surface of the carbuncle, and upon it a large piece of cotton wool. It should be changed twice or thrice a day.

DR. J. H. DIBBRELL, JR., ARKANSAS.

This practitioner observes, in the Medical and Surgical Reporter, March, 1877, that experience seems to have demonstrated that carbuncles do far better without any treatment whatever than when subjected to deep and extensive incisions. A simple puncture, when the tumor is hard, brawny and painful, will sometimes greatly mitigate the pain, but will not in any degree limit the extent or duration of the disease, or tend to arrest the sloughing process.

The use of collodion, in conjunction with carbolic acid, has yielded, in his practice, such satisfactory results as to induce the belief in its superiority over other modes of treatment. He combines it with carbolic acid as follows: when the carbuncle is seen early, he punctures it, and, with a camel's-hair pencil or small pointed stick, introduces into the opening thus made pure carbolic acid. If the disease has made greater progress, and one or more small, acne-like pustules have made their appearance on the tumor, these are carefully opened, which can be done without causing pain, and the acid introduced at each opening, as before indicated. The effect of the acid when first applied, especially if it touch a denuded surface, is to produce a sharp, stinging pain, which is, however, of but momentary duration. The next effect is local anæsthesia, and the patient is for a time, perhaps hours, free from pain.

Carbolic acid, possessing, in a notable degree, anæsthetic, antiseptic and caustic properties, seems to be peculiarly adapted to the treatment of the disease under consideration, which is usually attended with great

pain, sloughing, and an intolerable odor. Its use certainly diminishes the pain, corrects the odor, and arrests the sloughing process with much promptitude.

After the acid has been applied, collodion should be several times painted over the carbuncle, and beyond it, a few lines, on the uninflamed skin. All the openings are to be left free, in order to give egress to discharges. Each layer or film of the collodion should be allowed to dry before another is put on. This dressing may be renewed once daily, and the collodion previously applied, if partially detached, should be peeled off before a new application is made. If the part on which the carbuncle makes its appearance be covered with hair, this should be cleanly shaved off, otherwise the collodion will be difficult to remove, and at the same time cause considerable pain.

242. R. Aquæ chlorinii, f. 3 ss.

This amount, given three times a day, has been highly commended in furunculous disease, by Dr. T. N. WYLIE, of Texas. (Medical and Surgical Reporter, May, 1873.)

243. R. Acidi sulphurici diluti, gtt. xx.

This amount to be given in a glass of water three times a day. It is recommended in the *Medical and Surgical Reporter*, 1873, by Dr. Madison Marsh, as almost a specific in furuncular disease.

PROF. SIDNEY RINGER, OF LONDON.

This excellent authority highly extols, in anthracosis and furunculosis, the external use of the sulphides, as:

244. R. Calcii sulphidi, gr. $\frac{1}{10}$ gr. $\frac{1}{$

For a local application to carbuncles and abscesses he has found nothing give greater relief than this:

245. R. Extracti belladonnæ, Glycerinæ, āā q. s. Make an ointment and apply to the part.

Physicians who have made a trial of this treatment report on it very favorably. In the *Lancet*, February, 1877, one details a case of furunculosis thus managed, and adds:

"This case serves to illustrate in a remarkable manner the action of this drug. I have used the sulphide latterly in all similar cases with the most pleasing results, and have always found the patients spontaneously enthusiastic over the treatment. I could multiply evidence if space allowed. I am quite sure that any one who gives the sulphides a fair trial will never like to be without them in treating any case in which suppuration takes place or is threatening."

M. DE SAVIGNAC, OF PARIS,

In obstinate furunculosis, employs the alternative use of sulphate of soda and arsenic. The latter is pushed to its constitutional effect, while the former is used only as an occasional purgative.

DR. JAMES T. HEADY, OF KENTUCKY.

Make a crucial incision about one line in depth, at right angles, entirely across the discolored parts, where death or partial death has taken place. Into these incisions, along their entire extent, apply some finely-powdered corrosive chloride of mercury. The quantity in no case must exceed one-half grain, otherwise disagreeable or dangerous results may follow. After the incision and the application of the chloride, a poultice, or resin cerate on lint, should cover the parts affected. Within twenty-four hours afterward, a complete line of demarkation will have been formed, and the parts within that line will be insensible, hard, dry and resembling rotten wood. The slough will separate in a few days, leaving a healthy, granulating surface.

Some physicians have reported benefit from:

246. R. Potassii permanganatis, Aquæ destillatæ. Use as a dressing.

gr. xxx. f. \(\frac{7}{2} \) j.

M.

M.

MR. GEORGE COWELL, OF LONDON.

This writer, (Practitioner, February, 1872,) recommends commencing the treatment by applying nitrate of silver freely over the surface of the carbuncle, repeated, if necessary, once or twice after intervals of two days. After the application, a small pad of dry lint is bandaged over the part. Later on he uses poultices and carbolic-acid lotion.

DR. A. WAHLTUCH, LONDON.

247. R. Liquoris plumbi subacetatis, Acidi sulphurici, Apply locally in anthracose swellings and gangrenous ulcerations.

DR. L. DUNCAN BULKLEY, OF NEW YORK.

246. R. Sodii hyposulphitis,

gr. xxx. f. z iv. M.

This amount three or four times daily, on an empty stomach, in furunculosis.

Dr. Bulkley considers this a most valuable remedy to prevent the tendency to boils. When it fails, which has rarely happened in his hands, he gives large doses of quinine.

DR. ISAIAH THOMAS, WEST CHESTER, PA.

This physician has found a decoction of the black alder, Prinos verticillatus, of undoubted advantage in carbuncle and anthracose disease. Two ounces of the bark to three pints of water, boiled to a quart, is a proper proportion, of which a wineglassful three times a day may be taken.

DR. DELIOUX, FRANCE.

247. R. Sodii arseniatis, Aquæ destillatæ, gr. iss. f. \overline{z} vjss.

A teaspoonful in the morning before eating, and in the evening before the last meal, to persons affected with furuncles.

The author administers this arsenical solution during three weeks; he then purges the patient with from five drachms to an ounce of sulphate of sodium. For drink, an infusion of sarsaparilla (Div to the pint.) Diet, non-nitrogenous, in which the fresh fruits ought largely to enter; complete abstinence from acids and alcoholic stimulants. When the furuncles are hard and slow, the following ointment may be employed:

248. R. Sulphuris loti,

3j. 3 vij.

The application of tincture of iodine at the début of an inflammatory furuncle sometimes causes it to abort. Feeble sulphur-baths, with the addition of gelatine, as well as bran and starch-baths, are useful.

RÉSUME OF REMEDIES.

Aqua Picis has been recommended by Professor HARDY.

Argenti Nitras is preferred as a caustic to abort boils by some surgeons.

Arma. This has been highly extolled in boils, both for external and internal use, by Dr. Planat. (Jour. de Therapeutique, 1878.) He prescribes gtt. xxv of the tincture every two hours, or externally as follows:

249. R. Extracti florum arnicæ,

This may be thickened with lycopodium or marsh mallow and applied as a paste on linen. He claims that it cuts short all furuncular symptoms with remarkable promptness.

- Arsenicum. The internal use of arsenic is highly esteemed in some forms of furunculosis. Dr. Gross prefers arsenic in substance, gr. 1 ter die.
- Belladonna, in extract, with glycerine, is a valued means to allay the pain of boils and carbuncles. Mr. Christopher Heath also recommends its external administration to correct the tendency to their formation.
- Calcii Sulphidum is said by RINGER to be very efficient in preventing boils and carbuncles, gr. $\frac{1}{10}$ in a powder with sugar of milk thrice daily. In the boils attending diabetes it is useless.
- Camphora. Boils in their early stages, if painted for half a minute with tincture of camphor, and then when the skin is dry, smeared with camphorated oil, and thus repeated a few times, will generally abort.
- Carbolicum Acidum. A drop of the pure acid applied to the apex of a coming boil, will sometimes abort it. As a dressing to carbuncles the dilute acid is very
- Collodion. If collodion be applied at the papular or pustular stage of an ordinary boil, the swelling around the pustule subsides, and the boil is arrested. The collodion should be repeatedly painted upon the part. (See above.)
- Ferri Perchloridum. Highly commended by Dr. Schneider in carbuncle. (Above.) Iodinium. The tincture or liniment, if applied so as to produce vesication around a

boil or carbuncle, is an efficient means, according to Dr. J. K. Spender, to reduce the local inflammation.

Hydrargyrum. A plaster of mercurial ointment, applied early, is an excellent treatment in carbuncle. The corrosive chloride has been used later in the disease. (See above.) When there is an obstinate recurrence of boils or carbuncles, slight ptyalism may be required; minute doses of the bichloride are preferable. (Gross.)

Hydrastis Canadensis, internally, in full doses, (f. 3 ij four times a day,) is especially valuable in preventing recurrent crops of boils in scrofulous subjects. It should be assisted with saline laxatives.

Phosphorus. In cases of obstinate furunculosis Dr. Samuel R. Percy has used his preparation of "vitalized phosphorus" with much advantage.

Potassii Chloras. When the tendency to a recurrence of carbuncle or boil is attended with digestive disturbance, acidity and flatulence, the chlorate of potash, gr. v-x, thrice daily, will often improve the health.

Potassa Fusa is preferred by Mr. T. Holmes as a caustic in carbuncle.

Potassii Permanganas, in solution, applied on pieces of old muslin, after the carbuncle has been freely divided, has been highly extolled, as relieving pain and checking fetor.

Prinos Verticillatus is of value in carbuncle. (See above.)

Rhewn. Furuncles in children generally depend on some disorder of the alimentary canal, as entro-colitis and dyspepsia. In such cases the following prescrip-

tion, from the Children's Hospital, Philadelphia, will be found to act most efficiently in ridding the system of them:

250. R. Sodii bicarb., Syr. rhei aromat.. Tinct. columbæ,

f. 3 j. M.

Teaspoonful three times a day to a child of two years.

Sodii Sulphis and Hyposulphis, in solution, as a dressing, are useful antiseptics.

Sulphur internally is said to act efficiently to prevent recurrence. It has also formed an ingredient in local applications.

Tannicum Acidum is a useful local astringent.

Terebinthinæ Oleum. Painting a boil in its early stage with turpentine occasionally aborts it. Later in its development, turpentine liniment is an excellent stimulant application.

Vesication. Applying a blister directly over a boil or carbuncle is a popular treatment with many. (Above.)

FELON (WHITLOW, PARONYCHIA.)

THE ABORTIVE TREATMENT.

According to Mr. Erichsen, occasionally succeeds, if employed early in the following manner: The patient is well purged and placed upon a strictly antiphlogistic diet. The inflamed finger is freely leeched, and then alternately poulticed and soaked in very hot water for twenty-four or forty eight hours, being kept all this time in an elevated position. This sometimes cuts short the inflammation at the outset. If it fails, a free incision must promptly be made.

A writer in the Boston Journal of Chemistry, July, 1871, states that he has adopted with much success the plan of applying collodion over. the finger and the part where the pain is felt, as soon as it is noticed. The collodion, in contracting, exerts an even pressure, and if kept on for twenty-four hours, the pain, at first increased, will generally disappear.

An excellent abortive treatment of felon is to bind the finger firmly next to the hand with rubber tape. Inflammation will often disappear in twenty-four hours. Even after pus has formed, this method is

A correspondent of the Lancet, July, 1874, recommends the appli-