

cation of a small blister directly over the seat of pain, as early as possible.

Dr. DE FORGES claims to have often aborted a felon by having the patient hold the finger for some time in pure alcohol or in camphorated spirits.

When, in paronychia osteosa, the bone becomes necrosed, it should not be removed until loose, when it may be lifted out, and the wound allowed to heal in the ordinary manner.

The advice given by some eminent surgeons (JAMES SYME) to amputate the finger after the destruction of the bone, should not be followed. The retention of the part has the following advantages, viz.: 1. A moderately useful finger is preserved. 2. The symmetry and appearance of the hand is not as much altered as in amputation. 3. By retaining the paccinian corpuscles, the tactile function is intact—a matter of importance in the following of many pursuits in life. 4. The great disadvantage is the length of time the parts take to granulate.

Dr. GROSS observes: "Dead bone is removed as soon as it is easily separable, the periosteum being as little interfered with as possible, and amputation always avoided, experience having shown that a new phalanx is sometimes formed; and even when this does not happen, the boneless finger will be both useful and sufficiently seemly."

ULCERS.

The neglect of the *constitutional treatment* of ulcers is not unfrequently the cause of their obstinate continuance in spite of the most appropriate local applications. In strumous subjects, the special treatment for scrofula is called for; in gouty, scorbutic, syphilitic constitutions, it is vain to expect the part to heal unless the special dyscrasia is likewise removed.

Occasionally, where no cachexia is present, the administration of *tinctura opii*, gtt. x-xx, thrice daily, has been found to favor remarkably the healing process. (Dr. J. B. BURNETT, in the *Medical and Surgical Reporter*, Sept., 1869.)

Where there is general debility, the blood poor and the nutrition feeble, the following is employed at the Philadelphia Hospital as a general tonic:

253. R.	Tinct. ferri chloridi,	f.ʒj	
	Cinchoniz sulphatis,	gr. viij.	
	Strychniz,	gr. ʒ.ʒ.	
	Syrupi,		
	Aquæ,	āā	f.ʒj. M.

A teaspoonful for a dose.

Mr. CROFT, of St. Thomas' Hospital, London, has called attention to the value of quinine, in full doses, in serpiginous and phagedenic ulcers. He gives as much as gr. viij, with potassii iodidi ʒj, twice a day, and has seen ulcerations of the most obstinate character rapidly change for the better after these heroic doses were commenced.

M. PAUL GILLAUMET, OF PARIS.

Recently this writer has extolled the *sulphide of carbon* for the local treatment of ulcers. (*Gazette Medicale de Paris*, August, 1876.) Its disagreeable odor, which has been the main obstacle against its employment, can be almost covered by being distilled with one-half per cent. of corrosive sublimate and twenty per cent. of an inodorous fatty body; or it can be diluted by the addition of substances which will render the odor more bearable, such as essence of bitter almonds, essence of mirbane, in the proportion of ten drops to ten grammes of sulphide of carbon; Peruvian balsam, in the proportion of one gramme to thirty; iodine, tincture of iodine and essence of peppermint. The following preparation appears to give the best results:

254. R.	Carbon. sulphidi,	f.ʒss.	
	Tinct. iodinii,	f.ʒj.	
	Essent. menth. piper.,	ʒiv.	M.

For local use.

The application should be made freely twice a day. It is especially useful in indolent or chronic ulcers, and in those showing a tendency to spread, as syphilitic, etc. After the application, the surface should be covered with a mild powder, as starch or subnitrate of bismuth. The pain caused is sharp, but lasts only a few seconds.

Dr. E. MICHEL, of Paris, reports on this agent (in the *Journal de Thérapeutique*, January, 1875,) very favorably.

In order to obtain the desired effect, it is sufficient to touch the ulcerated tissues with a pledget of lint saturated with the liquid in the same way as with most acids. The frequency of the dressings depends on the degree of the chronicity of the ulceration; a very old and inactive ulcer will require moistening every day, whilst less frequent

applications, every two or three days, will suffice for a more recent and excitable ulcer. Sulphuret of carbon is not a caustic, and its contact with the mucous membrane does not leave any scar. Neither does it produce any discoloration except the amount resulting from its constant use, which characterizes reparation of the skin. It gives acute but only instantaneous pain; it is rare that it is not entirely dissipated in a few minutes. This pain, which is somewhat intense on the first application, is less so at the second, and diminishes in proportion as the use of the dressing is prolonged, and as the cicatrizing process becomes confirmed.

DR. JOHN H. BRINTON, OF PHILADELPHIA.

In sloughing and gangrenous ulcers, this surgeon frequently uses *bromine*, pure, or in the following formula:

255. R.	Brominii,	f. ℥j.	
	Aquæ,	f. ℥ij.	
	Potassii bromidi,	gr. xxx.	M.

Apply to the surface with a small sponge. He has used this agent in very many such cases with wonderful success; it is rarely necessary to make more than one application. (*Medical and Surgical Reporter*, December, 1870.)

DR. T. S. DOWSE, OF LONDON.

The use of *chloral* as an external application in sloughing and atonic ulcers, in abscesses, fungus hematodes, etc., has been highly commended by this practitioner, (*Medical Examiner*, Oct., 1876,) as well as others.

In some cases he first applied a blister, and then treated the blister with a solution of chloral.

Dr. Dowse uses four solutions of chloral:

Solution No. 1.—Simple Solution of Chloral.

256. R.	Chloral,	℥iv.	
	Water,	℔j.	M.

Solution No. 2.—Glycerine and Chloral.

257. R.	Chloral,	℥iv.	
	Glycerine,	℥j.	
	Water,	℥xvi.	M.

Solution No. 3.—Chloral and Chloride of Zinc.

258. R.	Chloral,	℥iv.	
	Solution of chlorinated zinc,	℥iv.	
	Water,	℥xvi.	M.

Solution No. 4.—Chloral and Perchloride of Iron.

259. R.	Chloral,	℥iv.	
	Solution of perchloride of iron,	℥ij.	M.

Mr. LUCAS, of Guy's Hospital, prefers:

260. R.	Chlorali,	gr. iv.	
	Aquæ,	f. ℥j.	M.

DR. HIGGINBOTTOM.

261. R.	Argenti nitratis,	℥j.	
	Aquæ destillatæ,	f. ℥iiij.	M.

Dissolve, and immerse in the solution—

Fine charpie,	℥ss.
---------------	------

Dry on a plate.

Some prefer the solution of nitrate of silver of the strength of a scruple to the fluid ounce.

This black charpie is recommended in the treatment of chronic ulcers requiring stimulation.

262. R.	Calcii chloridi,	℥j.	
	Opii pulveris,	℥iss.	
	Aquæ destillatæ,	f. ℥v.	M.

Shake the solution, and immerse a compress in it for application to indolent ulcers of the legs to induce cicatrization.

DR. JAMES BRAITHWAITE, LEEDS.

263. R.	Acidi carbonici,	℥j.	
	Aquæ destillatæ,	f. ℥viij.	M.

Apply this to the ulcer by brushing it on, and expose the part to warm, dry air for some hours. It forms a glazed, impervious surface.

MR. THOMAS KIRKLAND, OF LONDON.

264. R.	Emplastri plumbi,	℥j.	
	Cretæ preparatæ,	℥ss.	
	Olei olivæ,	āā	
	Acidi acetici,	f. ℥ss.	
	Plumbi acetatis,	℔j.	M.

This is the celebrated "Kirkland's Neutral Ointment," a very soothing application in irritable ulcers, highly commended by Sir BENJAMIN BRODIE and other surgeons.

DR. OHLEYER, OF GERMANY.

265. R.	Magnesiae,		
	Aquæ,		q. s.

To form a thin paste.

This, or dusting the surface freely with the magnesia, has proved of much use in atonic ulcers, slow wounds and painful sores.

DR. ROBERT J. GRAVES, DUBLIN.

266. R. Balsami Peruviani, $\mathfrak{z}j.$
Olei ricini, $f. \mathfrak{z}ij.$ M.

This is to be applied, by means of lint, to the bed-sores observed in prolonged illness, and particularly in typhoid fever. Two or three times a day, linseed-meal poultices are to be applied over the lint, and the ulcerations are to be washed morning and evening with chlorine water.

THE ROOSEVELT HOSPITAL, NEW YORK.

The Roosevelt Hospital treatment of languid old ulcers is that they are dressed with Labarraque's solution (liquoris sodæ chlorinatæ) until the sore becomes surgically clean. The solution is to be diluted with water, according to circumstances. If then the granulations have a healthy appearance, the ulcer is strapped and the limb bandaged. If the granulations become flabby and inactive, a dressing of balsam of Peru is applied, and over that straps and bandage.

Various old surgeons have spoken of the excellent effects of *oleum terebinthinæ* as a stimulant to old ulcers, and it has fallen into undeserved neglect. The surface should be freely painted with it, and lint, wet with it, may be laid upon the ulcerated surface.

DR. BOURGUIGNON, PARIS.

The external use of the tartrate of iron and potash is praised by this writer. He finds that in chronic wounds generally, and especially in varicose ulcers of the leg, with hard, well-defined edges and unhealthy surfaces, this substance acts beneficially, generally effecting a cure in two or three months. He uses a solution of from two to six parts of the salt in one hundred of distilled water, a few drops of ammonia being added to prevent precipitation. Pledgets of fine charpie soaked in this are applied to the ulcer night and morning, and covered over with a thick layer of cerate.

MR. PHILIP COWEN, M. R. C. S. L., LONDON.

267. R. Farinæ (wheat flour), $\mathfrak{z}iv.$
Acaciæ pulveris, $\mathfrak{z}j.$
Tragacanthæ pulveris, $\mathfrak{z}ss.$
Ovi, $No. j.$
Cretæ, $\mathfrak{z}ij.$
Aquæ frigida, $Oj.$

Mix and heat to boiling; boil one minute and cool. It should be thin enough to spread with a brush.

The patient, provided with pot and brush, paints the ulcer with this three or four times daily, covering it, when done, with a soft rag. Mr. COWEN claims very good results from this. (*Lancet*, January, 1873.)

MR. ROBERT DRUITT.

268. R. Creosoti, $gtt. xx.$
Unguenti resinae, $\mathfrak{z}j.$ M.
Adipis, \mathfrak{aa}

A good stimulating application in indolent and sloughing ulcers and hemorrhoids.

Much praise has of late been accorded to *iodoform* in obstinate and irritable ulcers. Its objection is its penetrating and unpleasant smell. Dr. GUBLER, of Paris, uses the formula:

269. R. Iodoformi, $gr. xv.$
Ætheris, $f. \mathfrak{z}j.$ M.

In consequence of the rapid volatilization of the ether, the iodoform is reduced to a state of extreme tenuity and covers the surface in a uniform manner.

DR. PARETA, OF PALERMO, ITALY.

270. R. Iodoformi, $\mathfrak{z}j.$
Alcoholis, $f. \mathfrak{z}ss.$
Glycerinæ, $f. \mathfrak{z}iv.$ M.

Wash the ulcers daily with this, and then dust them liberally with iodoform in fine powder.

Iodoform is certainly an admirable local anæsthetic. It may be advantageously used as an ointment, $\mathfrak{z}ij$ - iv to lard $\mathfrak{z}j$.

The same teacher, and others, have also experimented satisfactorily with *pepsin* in obstinate phagedenic and cancerous ulcers. His formula is:

271. R. Pepsinæ, $\mathfrak{z}ss.$
Acidi lactici, $\mathfrak{z}j.$
Aquæ, $f. \mathfrak{z}ijss.$ M.

Use as a local application to the ulcer.

This, he states, has succeeded after numerous other vaunted remedies had failed.

DR. COMEGYS PAUL, OF PHILADELPHIA.

This writer, (*Medical Times*, November, 1873,) directs attention anew to ordinary commercial *petroleum*, as an inexpensive and efficient antiseptic and stimulating application to ulcerous and suppurating surfaces. He has found the petroleum to be most useful as an application to non-specific, sluggish ulcers, and to all suppurating wounds that have a tendency to heal with an unhealthy and easily-ruptured cicatrix.

As an injection of sinuses, either connected or unconnected with diseased bones, the result will be satisfactory. In a bone-sinus it can be used without interruption, materially diminishing the discharge.

It is valuable in all inflammations of an erysipelatous character, being applied like an ordinary fomentation. The spreading of the disease is, apparently, favorably influenced, and the duration shortened in many cases.

Wounds dressed with petroleum should be thoroughly cleansed, then covered with saturated lint, and where there has been deep-seated destruction of the tissues, charpie, fully impregnated with it, should be packed into the cavities, and the whole overspread with oiled silk, waxed paper, or a piece of muslin spread with lard.

The smell is not at all oppressive, and does not cling to the fingers after ablution.

SIR JAMES PAGET.

272. R. Ung. resinæ, partes equales. M.
Bals. Peru,
For senile ulcers They should be well strapped with this, the constitution being supported by a generous diet, warmth, etc.

J. E. ERICHSEN.

273. R. Zinci sulphatis, gr. xvj.
Tinct. lavand. comp., f. ℥j.
Spts. rosmarini, āā f. ℥ viij. M.
Aquæ,
This will be found a most useful application to weak ulcers, with high, flabby granulations, such as occur from the too prolonged use of emollient applications.

DR. JAMES B. MOBLEY, OF ALA.

274. R. Passifloræ incarnatæ succi, O ss.
Ol. jecoris aselli, f. ℥ iv. M.
Apply to the surface of chronic ulcers thrice daily.

The soothing and healing action of the juice of the passion flower has been employed in a number of cases by this practitioner. (*Medical and Surgical Reporter*, Aug., 1869.)

The following applications are from various sources:

275. R. Olei cadini, f. ℥j.
Pulv. calcis sulphatis, ℥ vj. M.
To be thinly spread on dressings for ulcers when the suppuration is profuse.

276. R. Hydrarg. chloridi corrosivi, gr. iij.
Spts. frumenti, Oj. M.
To be applied to indolent and scrofulous ulcers two or three times a day, on wet rags or lint.

This is very highly commended by Mr. JOHN McLENNAN in the *Edinburgh Medical Journal*, March, 1876.

PROF. JAMES SYME, F. R. S. E.

The Indolent and Callous Ulcer.—This ulcer is confined almost exclusively to the legs of people advanced beyond middle age, and constitutes a very troublesome subject of surgical practice, as they are very apt to recur after being healed.

It is distinguished by a smooth surface, generally depressed, of various colors, having no appearance of granulations. The discharge is viscid, tenacious and fetid, the edges thick and white. There is always diffused swelling of the limb, firm and incompressible in character, though there is no circumscribed hardness in the immediate neighborhood of the ulcer.

The treatment generally thought most useful is *rest* in the horizontal position, and *pressure* by means of strapping the limb with adhesive plaster.

A much more speedy treatment, one more lasting in its effects, more economical, easy of application and convenient, is that by *blisters*. The blister applied should be large, covering not only the sore, but a considerable part of the limb. No other treatment is necessary; there is no danger of erysipelas, and the favorable result is almost certain. It is of essential importance that the blister takes in the whole thickened part of the limb.

GEO. L. BEARDSLEY, M. D.

In the treatment of indolent ulcers, one of the most important

agents is *cod-liver oil*. Sometimes an ulcer of several years' standing will heal in a few weeks when the patient is put upon regular doses of the oil.

Much attention must be paid to the *diet*. Fermented liquors are especially injurious, and must be forbidden. Alcoholic stimulants are better avoided. A change from animal to fish and vegetable food is often productive of excellent results.

When, however, the patient is feeble and anæmic, tonics, fresh meats and fruits are required.

Locally, when the border of the ulcer is thickened and tense, numerous incisions should be made, and the part thoroughly washed with hot water, holding in solution liquor sodæ chlor., ʒ iij—O j. As a stimulant application, balsam of Peru may be used, or tincture of capsicum, f. ʒ j to aquæ f. ʒ j, which is a convenient and excellent agent. Clean wood-ashes, medicated with carbolic acid, is also an excellent stimulant deodorant application. In case the knife cannot be used, the edges of the ulcer may be painted with tincture of iodine several times a week. Crystals of iodine dissolved in glycerine make a stronger application than the tincture. The iodide of lead may also be used advantageously for this purpose.

Finally, electricity may be employed. This does little good in the advanced stages, when the borders are tough and puckered; but in the first stages of induration, it proves at times surprisingly valuable, healing in a few applications ulcers which for months had resisted the usual resources of the surgeon. Either current may be applied daily, and should indicate its good influence after a few sittings, by rendering the infiltrated tissue soft to the touch and presenting signs of contraction. As a gentle, stimulating application, a weak continuous current has been tried by Mr. GOLDING BIRD, of Guy's Hospital, London, who has reported that it yields quite as good results as any other gently-stimulating measure at the command of the surgeon, and sometimes succeeds when other measures for obtaining cicatrization fail.

RÉSUMÉ OF REMEDIES.

Alcohol. This is an excellent application to sores and ulcers. It covers them with a thin layer of coagulated albumen. (For Alcoholic Dressings, see page 77.) When the ulcer is obstinate, gr. j-v to alcoholis O j, makes a most potent stimulating lotion.

Alumen, applied in dry powder or in solution to relaxed and abundantly secreting sores, is a fine astringent.

Argenti Nitras is an almost indispensable stimulant in the management of old ulcers.

Balsamum Peruvianum is a favorite stimulant, combined with resin ointment, of Sir JAMES PAGET. (F. 272.)

Bismuth makes a useful desiccant astringent application.

Boracicum Acidum has been found by Dr. WARREN GREENE, of Maine, very useful in dressing old indolent ulcers. He uses it in a glycerole or ointment. (*Boston Med. and Surg. Jour.*, 1879.)

Brominium is employed by Dr. JOHN H. BRINTON. (F. 255.)

Cadini Oleum is an excellent form of tar for local use. See PIX.

Carbo, applied locally to sloughing sores, is a useful disinfectant.

Carbolicum Acidum is highly recommended. (F. 263.)

Carbonis Sulphidum is especially useful in indolent ulcers. (F. 254.)

Chloralum Hydratum, in solution, will be found a very satisfactory lotion to foul and recent ulcers. (F. 256-260.)

Chlorinii Aqua. Sloughing and foul-smelling sores may be advantageously washed with this preparation.

Cinchona. Finely powdered Peruvian bark, dusted thickly over foul, indolent, sloughing and even dangerous ulcers, and left to form a kind of poultice, has apparently promoted the healing process.

Conium is often an efficient anodyne addition to ointments.

Creta Preparata is an ingredient in a number of soothing ointments. (F. 264.)

Cuprum. The sulphate of copper, in stick, solution or ointment, is an appropriate stimulant to indolent sores.

Electricity has been employed with very satisfactory results by a number of surgeons, but is limited to ulcers which will yield by moderate stimulation. (See above.)

Farina is used as an application by Mr. COWEN. (F. 267.)

Fecula Iodidum. To clean sloughing sores Professor MARSHALL has employed successfully an iodide of starch poultice, applied cold. (For recipe to make it, see page 38.)

Glycerina, slightly diluted, or carbolated, makes a very good application.

Iodoformum, dusted in fine powder over spreading and painful sores, gives much relief. Dr. MANDELBAUM, of Odessa, says (*Berl. Klin. Wochenschrift*, Nov. 10th, 1878,) all ulcers of the leg, and elsewhere, can be cured by the following method: If they are very deep, with much loss of tissue, and with undermined, uneven, callous edges, they are first to be scraped away until healthy tissue is reached, with the modification of Volkmann's spoon as suggested by HEBRA; they are then to be covered for several days with a thick layer of iodoform until fresh granulations spring up, (as they are certain to do,) and until the base of the ulcer has reached the level of the surrounding skin. When this point in the healing process is reached, the ulcer is to be strapped daily with equal parts of mercurial and soap plaster of rather soft consistence, and carefully and evenly applied. Shallow ulcers, covered only with pus, require no scraping, but can be at once treated with iodoform.

Nitricum Acidum, diluted, is employed as a stimulating wash to the surface of

unhealthy ulcers. In specific infection, it is used in its concentrated form, and is the best of escharotics.

Opium, or some of its alkaloids, is much valued as a soothing ingredient in lotions and ointments to irritable ulcers.

Pepsina has been advocated. (F. 271.)

Pix Liquida. Tar has been used with advantage in the form of ointment, in foul and indolent ulcers. It is a popular remedy for this purpose in veterinary surgery.

Plumbum. The soluble salts of lead form common ingredients in lotions for ulcers. Lead plaster is in familiar use.

Potassii Permanganas is well spoken of as a deodorant. In dilute solution it is a mild stimulant. Employed in the form of powder it acts as a gentle caustic, and may often be applied with advantage in sloughing ulcers.

Quinæ Sulphas. Dr. C. I. WILLIAMS (*Southern Practitioner*, Nov., 1879,) recommends in old sores—

277. R.	Quinæ sulphatis,	ʒj.	
	Iodoformi,	ʒj.	M.

Dust on the ulcer several times daily.

Sodii Boras. A favorite application of Mr. SAMSON GAMGEE'S to old ulcers is—

278. R.	Sodii boratis,	ʒ ss.	
	Tinct. lavand. comp.,	ʒjss.	
	Glycerinæ,	f. ʒjss.	
	Aquæ,	f. ʒvi.	M.

For local use as a lotion.

Sulphides. Dr. RINGER says that a sore discharging a thin, watery, unhealthy ichor will, under the administration of the sulphides of calcium, speedily undergo a healthy change, the discharge becoming at first more abundant, afterwards diminishing, and throughout continuing thicker and healthier.

Sulphurosum Acidum may be used diluted as a wash.

Tannicum Acidum. Tannin, having the property of coagulating albumen, is employed largely to sores with profuse discharge and luxuriant granulations. Added to glycerine, it is a very effective dressing.

Zincum. The sulphate of zinc, as a stimulant and astringent, lessens the secretion and promotes healthier growth in ill-conditioned, free-secreting sores. The chloride, in dilute solution, is a still more energetic article.

The Elastic Bandage. As an important advance in the treatment of ulcers of the extremities, must be mentioned the elastic bandage as employed by Dr. HENRY A. MARTIN, of Boston. He applies it firmly above the ulcerated part, and is so fully convinced of its value that he says that such a bandage without any other means or appliance whatever, is all that is necessary for the perfect and permanent cure of all curable non-specific ulcers of the leg.

VIII. LESIONS OF THE BONES AND JOINTS.

Bunion and Ganglion—Caries and Necrosis—Osteitis and Periosteitis—Sprains—Synovitis (Arthritis.)

BUNION AND GANGLION.

BUNIONS.

PROFESSOR S. D. GROSS, M. D., PHILADELPHIA.

For the radical cure of this troublesome affection, excision of the sac has been resorted to, but this operation is liable to be followed by erysipelas, and is dangerous. A much safer plan is to divide the sac subcutaneously with a delicate tenotome, cutting it up into numerous fragments, and then penciling the surface of the swelling several times a day with tincture of iodine. This method our author has practiced in numerous cases with gratifying results.

DR. CHARLES H. LOTHROP, OF IOWA.

This writer tried a variety of apparatus, Bigg's, Erichsen's, etc., without benefit, but is satisfied that the following will be found successful. Displacement of the toe is the obstacle to be overcome. A large and wide boot, shoe or slipper must be worn, made of cloth or other light material. A cot, made of muslin or some other firm and soft fabric, is placed upon the great toe of the affected foot. One or more strips of adhesive plaster are placed on and around the heel, their free extremities extending toward the free end of the cot upon the toe. The ends of the plaster and cot are then connected by means of a strong rubber ribbon, so that there is a constant traction of the toe to return to its natural position. If necessary, other strips of plaster should be applied to retain the apparatus in position, one about the instep, and one about the ball of the foot; while another may be bound about the great toe and attached to the second.

The contractile power of the external ligament and abductor pollicis is thus overcome without injury. If they do not readily yield, they