

the theory, nor indeed utility, of burnt hart's horn for any purpose as a remedy.

Officinal preparation. *Mistura Cornu usti. L.*

SPONGIA USTA. Lond. *Burnt Sponge.*

"Cut sponge into small pieces and bruise it, in order to free it from any adhering extraneous substances; then burn it in a covered iron vessel, until it become black and friable; finally, rub it to a very fine powder."

The properties of fresh sponge have been already noticed: when burnt, the residue consists of carbonate and phosphate of lime, subcarbonate of soda, and charcoal. The principal active ingredient is the subcarbonate of soda, but it is asserted that a mixture of this principle and charcoal does not produce the effects of burnt sponge.

Medical properties and uses. — Burnt sponge is tonic, deobstruent, and antacid. It has been much recommended in bronchocele, scrophulous affections, and herpetic eruptions: and I have witnessed its efficacy in scirrhus testicle, when given in combination with cinchona bark. The dose is from ʒj. to ʒij. mixed into the form of an electuary, with powdered cinnamon and honey. In bronchocele the patient is directed to swallow the portion of electuary very slowly, from a supposition that some local effect is produced.

TESTÆ PRÆPARATÆ. Lond. *Prepared Shells.*

"Wash the shells with boiling water, having previously freed them from extraneous matters, then prepare them in the manner directed for the preparation of chalk."

OSTREARUM TESTÆ PRÆPARATÆ. Dub. *Prepared Oyster Shells.*

"These are to be prepared in the same manner as chalk."

OVORUM TESTÆ PRÆPARATÆ. Dub. *Prepared Egg Shells.*

"These are to be prepared in the same manner as chalk."

Both in oyster and egg-shells the predominating ingredient is carbonate of lime, and therefore these prepared shells do not differ from chalk, except in containing a small portion of gelatin or albumen. But as this does not in any degree affect their medicinal properties, which are exactly the same as those of chalk, they might well be spared from the list of preparations. The dose is from grs. x. to ʒij. or more.

EMPLASTRA.

PLASTERS.

THESE are solid, tenacious compounds, adhesive in the ordinary heat of the human body. The base of the majority of

plasters is a chemical combination of the semivitreous oxide of lead and oil; but some of them owe their consistence to wax and resin; and others contain no oily nor fatty matter whatsoever. Deyeux proposes¹ to confine the name of plasters to the combinations of metallic oxides with oils or fat; and to give those not containing oxides, the term solid ointments; but this definition would include among the plasters some of the ointments, and exclude many of the plasters.

Plasters should not adhere to the hand when cold; they should be easily spread when heated; and should remain tenacious and pliant after they are spread; but should not be so soft as to run when heated by the skin. All plasters become too consistent and brittle when long kept; but in this case, those which are unctuous may be re-melted by a gentle heat, and some oil added to them. They are usually formed into rolls, each of which is wrapped in paper; and when to be used, they are melted and spread on leather, calico, linen, or silk. Those that contain metallic oxides ought to be melted by boiling water, for in a greater degree of heat the fatty matter is apt to reduce the oxide.

Plasters are employed as local remedies to answer various indications. When the materials of which they are formed are soft and bland, they are used simply as coverings to sores and abraded surfaces, to protect them from the action of the air, and give support to the parts; but in many instances they contain acrid and stimulating substances, and operate as rubefacients, or as blisters.

EMPLASTRUM AMMONIACI. Lond. Edin. *Ammoniac Plaster.*

"Take of purified ammoniac, *five ounces*; acetic acid, (distilled vinegar,) *half a pint*. Dissolve the ammoniac in the vinegar, then evaporate the solution in an iron vessel placed in a water-bath, constantly stirring until it acquire a proper consistence."

This plaster is stimulant and resolvent. It is applied to scrophulous tumours and white swellings; and sometimes over the scalp, in tinea capitis.

EMPLASTRUM AMMONIACI, CUM HYDRARGYRO. Lond. *Ammoniac Plaster with Mercury.*

"Take of purified ammoniac, *a pound*; purified mercury, *three ounces*; sulphureted oil, *a fluid drachm*. Rub the mercury with the sulphureted oil until the globules disappear; then add gradually the ammoniac previously melted, and mix the whole together."

¹ *Annales de Chimie*, xxxiii. 52.

Dublin.

"Take of pure gum ammoniac, *a pound*; purified mercury, *three ounces*; turpentine, *two drachms*. Rub the mercury with the turpentine until the globules disappear; then add gradually the ammoniac previously melted, and melt the whole together."

In these plasters the mercury is in the state of oxide, with a minimum of oxygen. They are powerful discutients, and are applied to indurated glands, hydarthus, nodes, tophi, and indolent tumours.

EMPLASTRUM AROMATICUM. Dub. *Aromatic Plaster.*

"Take of frankincense, *three ounces*; yellow wax, *half an ounce*; cinnamon bark in powder, *six drachms*; oil of pimenta, oil of lemons, of each *two drachms*. Melt the frankincense and the wax together, and strain the mixture; when it thickens by cooling, mix with it the powder of cinnamon previously rubbed with the oils, and form them into a plaster."

This plaster, which is an elegant stimulant, is applied on the region of the stomach in dyspepsia, and increased irritability of that viscus, to allay pain and vomiting; and to expel flatus. As the oils are very volatile, it must be spread with the thumb without being melted. It requires to be frequently renewed, and is consequently not very adhesive.

EMPLASTRUM ASSAFCETIDÆ. Edin. *Assafoetida Plaster.*

"Take of plaster of semivitreous oxide of lead, assafoetida, of each *two parts*; galbanum, yellow wax, of each *one part*."

This plaster is sometimes applied over the umbilical region, in flatulence and hysteria.

EMPLASTRUM CALEFACIENS. Dub. *Warm Plaster.*

"Take of plaster of cantharides, *one part*; Burgundy pitch, *seven parts*. Melt them together with a moderate heat, and mix them so as to form a plaster."

This plaster is stimulant and rubefacient, and is applied with advantage in catarrh, hooping-cough, sciatica, and local pains.

EMPLASTRUM CERÆ. Lond. *Wax Plaster.*

"Take of yellow wax, prepared suet, of each *three pounds*; yellow resin, *a pound*. Melt them together, and strain."

EMPLASTRUM SIMPLEX. Edin. *Simple Plaster.*

"Take of yellow wax, *three parts*; mutton suet, white resin, of each *two parts*."

These plasters were originally intended for dressing blistered parts, with the view of promoting a discharge; but, owing to the pain and irritation they induce, they are now seldom employed. They may be spread with a hot iron.

Official preparation. *Emplastrum Lyttæ*. L.

EMPLASTRUM CUMINI. Lond. *Cumin Plaster*.

"Take of cumin seeds, carraway seeds, laurel berries, of each *three ounces*; dried pitch, *three pounds*; yellow wax, *three ounces*. Melt the pitch and the wax together, then add the other ingredients in powder, and mix."

This plaster is stimulant and discutient. It is applied to the hypogastric region in flatulence and a cold feeling of the bowels, and to indolent tumours.

EMPLASTRUM GALBANI COMPOSITUM. Lond. *Compound Galbanum Plaster*.

"Take of purified galbanum, *eight ounces*; plaster of lead, *three pounds*; common turpentine, *ten drachms*; resin of the spruce-fir powdered, *three ounces*. Having melted the galbanum and the turpentine together, mix in first the resin, and then the plaster of lead previously melted by a slow fire, and mix the whole together."

EMPLASTRUM GUMMOSUM. Edin. *Gum Plaster*.

"Take of plaster of semivitreous oxide of lead, *eight parts*; ammoniac gum-resin, galbanum, yellow wax, of each *one part*. Add the gum resins to the melted plaster and wax, and mix."

EMPLASTRUM GALBANI. Dub. *Plaster of Galbanum*.

"Take of litharge plaster, *two pounds*; galbanum, *half a pound*; yellow wax sliced, *four ounces*. To the galbanum melted by heat add the litharge plaster and the wax; then melt the whole together by a gentle heat."

These plasters are stimulant and suppurative. They are applied with advantage to scrophulous tumours; to joints which have been long affected with arthritic pains; and to the loins in rickets. As a suppurative they are applied to indolent tumours; and to reduce the induration which often remains around abscesses, after they are discharged.

EMPLASTRUM HYDRARGYRI. Lond. *Mercurial Plaster*.

"Take of purified mercury, *three ounces*; sulphureted oil, *a fluid drachm*; plaster of lead, *a pound*. Rub the mercury with the sulphureted oil until the globules disappear; then add by degrees the lead plaster melted, and mix the whole."

Edinburgh.

"Take of olive oil, resin, of each *one part*; mercury, *three parts*; plaster of semivitreous oxide of lead, *six parts*. Rub the mercury with the oil and the resin previously melted together and cooled, until the globules disappear; then add gradually the plaster of semivitreous oxide of lead melted, and let the whole be carefully mixed together."

1 Quacksilberplaster (G.)

The mercury in these plasters is in the state of oxide, with a minimum of oxygen; and the sulphureted oil, ordered by the London College, is intended to diminish the labour required for this oxidizement of the metal. The plasters are powerful discutients, and are applied to buboes, venereal tumours, nodes, when they are not very painful to the touch, and indurations: they are also applied to joints affected with obstinate syphilitic pains.

EMPLASTRUM LYTTÆ. Lond. *Blistering Plaster.*

“Take of blistering flies reduced to a very fine powder, a pound; wax plaster, a pound and a half; prepared lard, a pound. Melt the plaster and the lard together, and having removed them from the fire, when the mixture is just about to become solid, sprinkle in the blistering flies, and mix the whole together.”

EMPLASTRUM CANTHARIDIS VESICATORIÆ. Edin. *Blistering Plaster.*

“Take of mutton suet, wax, white resin, blistering flies reduced to a very fine powder, of each equal weights. Mix the powder with the other articles previously melted together, and removed from the fire; then stir until the mixture stiffens in cooling.”

EMPLASTRUM CANTHARIDIS. Dub. *Blistering Plaster.*

“Take of purified yellow wax, mutton suet, of each a pound; yellow resin, four ounces; blistering flies in fine powder, a pound. Melt the wax, the suet, and the resin together, and a little before they concrete in becoming cold, sprinkle in the blistering flies, and form the whole into a plaster.”

These plasters are of a moderately soft consistence, so as to admit of being spread without the assistance of heat, which destroys the acrimony and epispastic property of the flies; but they seldom fail of raising a blister, if the flies be good, and have not been added when the other ingredients were too hot. When they are to be used, a piece of leather of a proper shape and size is first spread with adhesive plaster, and over this the blistering plaster is extended of a moderate degree of thickness, and as smooth as possible, by the means of the thumb; a proper margin being left, so as to enable it to adhere closely to the skin. There is, however, an evident waste of flies, as those flies only which are on the surface of the plaster, when it is spread, act on the skin; and it has been suggested by Parmentier², that the same effect would be more economically produced by sprinkling the powdered flies on a piece of farinaceous paste,

¹ Emplâtre de Cantharides (F.) Kanthariden pflaster (G.) Empiastro di Cantarelle (I.)

² *Annales de Chimie*, xlviij.

spread on linen or leather. Blistering plasters require to remain applied for twelve hours to raise a perfect blister; they are then to be removed, the vesicle is to be cut at the most depending part, and without removing the cuticle, the vesicated part is to be dressed with simple cerate or spermaceti ointment; and the old cuticle allowed to remain until a new one is formed under it, when it peels off, and the whole is healed in the course of a few days. The application of these plasters, however, is sometimes attended with strangury and bloody urine, which arise from the active principles of the insect being absorbed, and irritating the kidneys and urethra. This effect is very much increased if the blister be applied over an abraded surface, as, for example, on the head immediately after it has been shaved; and it also occurs if the plaster remain too long applied. To prevent strangury, camphor has been recommended to be mixed with the blistering composition, but it has no good effect; and it is better obviated by copious dilution with milk, or mucilaginous fluids, and fomentations of warm milk and water to the blistered part, after the removal of the plaster. When the head is the part intended to be blistered, it should be shaved at least ten hours before the plaster is applied; and in all cases it is perhaps a good rule to interpose a piece of thin gauze between the vesicatory and the skin, wetted with vinegar, and applied smooth and very close over the plaster.

In some diseases of irritation, particularly in children, the blistered part, instead of healing kindly, becomes a spreading sore; the cutis vera is destroyed, and the part cannot be healed until the irritability of habit which induced this unpleasant state is allayed. In such cases, the best local application is a warm emollient poultice; and bathing the denuded surface frequently with tepid milk and water; while at the same time cinchona bark is internally administered.

EMPLASTRUM CANTHARIDIS VESICATORIE COMPOSITUM. Edin. *Compound Plaster of Spanish Flies.*

“Take of Venice turpentine, *eighteen parts*; Burgundy pitch, blistering flies, of each *twelve parts*; yellow wax, *four parts*; subacetite of copper, *two parts*; white mustard seeds, black pepper, of each *one part*. Melt the Burgundy pitch and the wax, and add to them the turpentine. While these remain still warm, after being melted, sprinkle in the other ingredients reduced to fine powder, and mix them, stirring constantly, so as to form a plaster.”

This plaster is intended to raise a blister more quickly than the former; and hence is adapted for cases of gout and cramps of the stomach, in which the effect of the blister must be al-

most instantly produced. Its operation is accompanied with great pain, and a very pungent sense of heat: and it is apt to produce very unpleasant ulceration if allowed to remain too long applied.

EMPLASTRUM OPII. Lond. Edin. *Plaster of Opium.*¹

"Take of hard opium powdered, *half an ounce*; resin of the spruce-fir powdered, *three ounces*; lead plaster, *a pound*. Melt the plaster and the resin together, then add the opium, and mix the whole."

This plaster is anodyne, and supposed to be useful in relieving rheumatism and local pains: but although it is undoubtedly certain that opium, in that state of minute division in which it exists in the tincture, produces its specific effect on the system in a small degree, when externally applied; yet we doubt whether the anodyne properties of this plaster are such as to sanction its adoption into the London Pharmacopœia.

EMPLASTRUM OXIDI FERRI RUBRI. Edin. *Plaster of red Oxide of Iron.*

"Take of plaster of semivitreous oxide of lead, *twenty-four parts*; white resin, *six parts*; yellow wax, olive oil, of each *three parts*; red oxide of iron, *eight parts*. Rub the red oxide of iron with the oil, and adding the other ingredients melted, mix the whole well together."

EMPLASTRUM THURIS. Dub. *Plaster of Frankincense.*

"Take of litharge plaster, *two pounds*; frankincense, *half a pound*; red oxide of iron, *three ounces*. To the plaster and frankincense melted together add the oxide, stirring them together so as to form a plaster."

These plasters are supposed to be tonic; and are used in muscular relaxations, and weaknesses of the joints after sprains: but they act chiefly in affording a mechanical support to the parts.

EMPLASTRUM PICIS COMPOSITUM. Lond. *Compound Pitch Plaster.*

"Take of dried pitch, *two pounds*; frankincense, *a pound*; yellow resin, yellow wax, of each *four ounces*; expressed oil of nutmeg, *an ounce*. To the pitch, resin, and wax, melted together, add first the frankincense, then the oil of nutmeg, and mix the whole."

This plaster is stimulant and rubefacient. It is used in catarrh, and other pulmonary affections, applied to the thorax; and in head-ach and chronic ophthalmia, applied to the temples. When a serous exudation takes place, the plaster should be frequently renewed.

¹ Opiumplaster (G.)

EMPLASTRUM PLUMBI. Lond. *Lead Plaster.*^{*}

"Take of semivitreous oxide of lead, rubbed to a very fine powder, *five pounds*; olive oil, *a gallon*; water, *two pints*. Boil them together over a slow fire, stirring constantly until the oil and oxide of lead cohere into the consistence of a plaster. It will be necessary, however, to add a little boiling water, if that which was employed in the beginning shall be consumed before the end of the process."

EMPLASTRUM OXIDI PLUMBI SEMI-VITREI. Edin. *Plaster of Semivitreous Oxide of Lead.*

"Take of the semivitreous oxide of lead, *one part*; olive oil, *two parts*; water, *a sufficient quantity*. Boil them, stirring constantly, until the oil and the oxide unite into a plaster."

EMPLASTRUM LITHARGYRI. Dub. *Litharge Plaster.*

"Take of litharge in fine powder, *five pounds*; olive oil, *nine pounds*; boiling water, *two pints*. Mix them at a high temperature, constantly stirring, until the oil and the litharge unite so as to form a plaster; supplying occasionally any waste of water that may take place."

The use of the water in the formation of these plasters is to moderate the heat of the mixture, until the oil and the oxide combine, by which means the reduction of the metal is prevented; a circumstance which is apt to take place from the strong attraction of the oil for oxygen when raised to a high temperature. By continuing the boiling the water is dissipated; and the temperature can then be increased to a sufficient degree to give the plaster the necessary consistency. The water which is added should be previously made hot; as cold water is apt to produce an explosion, which may prove dangerous to the operator. When long kept, these plasters change their colour, and lose most of their sensible properties.

These plasters are intended chiefly to defend excoriated surfaces from the action of the air; and to form the basis of some other plasters.

Official preparations. *Emplastrum Hydrargyri.* L. E. *Emplastrum Opii.* L. *Emplastrum Assafoetidae.* E. *Emplastrum gummosum.* E. *Emplastrum Galbani.* D. *Emplastrum Galbani compositum.* L. *Emplastrum Oxidi Ferri rubri.* E. *Emplastrum Resinae.* L. E. D. *Emplastrum Saponis.* L. E. D. *Emplastrum Thuris.* D.

EMPLASTRUM RESINÆ. Lond. *Resin Plaster.*²

"Take of yellow resin, *half a pound*; lead plaster, *three pounds*. Melt the lead plaster by a gentle heat, then add the resin in powder, and mix."

^{*} Emplatre de diachylon (F.) Bleipflaster (G.)

² Harzigtes Bleipflaster (G.)

EMPLASTRUM RESINOSUM. Edin. *Resinous Plaster.*

"Take of plaster of semivitreous oxide of lead, *five parts*; resin, *one part*. Melt them with a gentle heat; then continue stirring the mixture until it becomes stiff in cooling."

EMPLASTRUM LITHARGYRI CUM RESINA. Dub. *Litharge Plaster with Resin.*

"Take of litharge plaster, *three pounds and a half*; yellow resin, *half a pound*. Melt the litharge plaster by a moderate heat, then add the resin reduced to very fine powder, that it may melt quickly, and form a plaster."

These plasters are defensive, adhesive, and gently stimulant. They are used for retaining together the lips of recent wounds, when it is wished to heal them by the first intention; to give support to ulcerated parts; and to assist their granulation and cicatrization, according to the excellent method of Mr. Baynton. The plaster, however, originally used by Mr. Baynton contained less resin; 3vj. only being added to lb. j. of the litharge plaster; but this preparation answers the purpose equally well, except in very irritable habits. The best substance for spreading it on for the above purpose is calico; and it is of some importance to spread it equally and thin; to effect which the calico must be stretched, and the plaster melted and beginning to cool, must be poured on one end of it, and equally extended over the whole surface by means of a spatula, held horizontally, and one edge of the blade raised to an angle of 45 degrees: or it may be still more equally done by passing the calico, on which the fluid plaster has been poured, through a machine formed of a straight blade of steel, fixed by screws, at a proper distance from a polished plate of the same metal. It is sold ready spread.

EMPLASTRUM SAPONIS. Lond. Dub. *'Soap Plaster.*

"Take of hard soap sliced, *half a pound*; lead plaster, *three pounds*. Mix the soap with the melted plaster; then boil it down to a proper consistence."

EMPLASTRUM SAPONACEUM. Edin. *Soap Plaster.*

"Take of semivitreous oxide of lead, *four parts*; gum plaster, *two parts*; soap sliced, *one part*. Mix the soap with the plasters melted together; then boil them a little so as to form a plaster."

Dr. Powell properly observes, that the soap plaster of the London College "must be formed into rolls when it begins to thicken, for afterwards, although it be still somewhat soft, it loses its tenacity, and will break to pieces."²

¹ Seifenpflaster (G.)

² Powell's Translation of the London Pharmacopœia, 2d. edit. 324.

Soap plaster is discutient; and is applied to lymphatic tumors: but it is much less useful than the mercurial plaster.

CERATA.

CERATES.

THESE are unctuous compositions possessing a certain degree of firmness, intermediate between that of plasters and that of ointments. Their consistence depends on the wax they contain; and from it they derive their generic appellation. The most important circumstance to be attended to in their preparation is the freshness of the fat and the oils employed; and their preservation in this state.

CERATUM SIMPLEX. Lond. *Cerate*.¹

"Take of olive oil, *four fluid ounces*; yellow wax, *four ounces*. Add the oil to the melted wax, and mix."

This is a useful simple emollient dressing to excoriations and sores.

CERATUM CALAMINÆ. Lond. *Calamine Cerate*.

"Take of prepared calamine, yellow wax, of each *half a pound*; olive oil, *a pint*. Mix the oil with the melted wax; then remove the mixture from the fire, and as soon as it begins to thicken, add the calamine, stirring constantly until it be cold."

CERATUM CARBONATIS ZINCI IMPURI. Edin. *Cerate of Impure Carbonate of Zinc*.

"Take of simple cerate, *five parts*; prepared impure carbonate of zinc, *one part*. Mix."

UNGENTUM CALAMINARE. Dub. *Calamine Ointment*.

"Take of ointment of yellow wax, *five pounds*; prepared calamine, *a pound*. Make them into an ointment."

These preparations are very useful dressings to excoriations and ulcers; and as they are in some degree desiccative, they are also applied to burns after the inflammation is abated; and to the eye-lids in ophthalmia tarsi. They have been long known in practice under the name of *Turner's cerate*.

CRATUM CETACEI. Lond. *Spermaceti Cerate*.²

"Take of spermaceti, *half an ounce*; white wax, *two ounces*; olive oil, *four fluid ounces*. Melt the spermaceti and the wax together, then add the oil, and stir them until they be cold."

CERATUM SIMPLEX. Edin. *Simple Cerate*.

"Take of olive oil, *six parts*; white wax, *three parts*; sper-

¹ Cerat simple (F.) Cerotto semplice (I.)

² Cerat de blanc de balaine (F.) Cerotto di Spermaceti (I.)