CHAP. XV.

RUBEFACIENTS AND EPISPASTICS.

Rubefacients and Epispastics operate nearly on the same principle, and produce similar effects, differing only in degree. They may therefore be considered as subdivisions of one class.

The term Epispastic has been applied to whatever application has the power of producing a serous or puriform discharge, by exciting a previous state of inflammation or suppuration. The term includes blisters, issues and setons; but it is more commonly restricted to the first of these, and it is this which chiefly falls under the department of Materia Medica.

Blisters are those external applications which excite inflammation on the skin, and which, occasioning a thin serous fluid to be poured from the exhalants, separate the cuticle from the true skin, and form the appearance of a vesicle or blister.

The mode in which they produce this effect is sufficiently evident; it is to be referred to the stimulating power of the substances applied, which exciting increased action in the extreme blood vessels, induces inflamma-

tion, and causes the pouring out of the serous fluid with which the vesicle is filled. Hence we deduce the primary effects of these applications on the general system. By the increased action they excite, and the pain they occasion, they act as stimulants, and they may act, it has been supposed, as evacuants, by the quantity of fluid which they cause to be poured out.

There can now be little dispute by which of these modes of operation blisters are used with advantage in the treatment of diseases. The quantity of fluid discharged is so inconsiderable, and the relief obtained often so sudden and complete, that it would be assigning a very inadequate cause for their effects, if we should ascribe these to any evacuating power.

Some have imagined that cantharides, which forms the basis of the common blistering applications, are absorbed in part by the inflamed surface, and that it is to the peculiar action of this acrid matter stimulating the system, that many of the effects of blisters are owing. But there is no proof, nor indeed any reason to believe, that this absorption is uniform or frequent; the same effects are obtained from blistering applications into the composition of which cantharides do not enter, while they are not obtained from the internal administration of cantharides. The effects of blisters are therefore to be ascribed to the pain and inflammation they excite, and the stimulus which is thence propagated to the general system.

It is a principle with regard to the living body, demonstrated by many facts, that where a morbid action exists,

it may be often removed by inducing a different action, even of a morbid kind, in the same part, or in parts as contiguous to it as possible; and where the morbid action extends to the whole system, it may be removed by one of a different kind being excited either generally, or in any particular part of the body.

From this principle is explained the efficacy of blisters in all cases of inflammation and spasmodic constriction; a new inflammation being excited by the blister which occasions derivation of action. Hence, too, the advantage obtained is greater when the blister is applied as near as possible to the part affected. This principle regulates the application of blisters in pneumonia, hepatitis, phrenitis, angina, ophthalmia, rheumatism, and every other case of active inflammation. In these affections, blisters are used with evident advantage; the local inflammation which is excited more than counterbalancing, by this operation, the stimulant effects at the same time produced.

A similar principle exists with respect to the pain excited by blisters, which may also be applied to the explanation of the advantages derived from them in other diseases. It has long been remarked, that exciting one pain often relieves another, and hence blisters afford relief in toothach, and other painful affections. Epilepsy and hysteria arising from irritation have been removed by blisters; apparently from their exciting pain, engaging the attention, and diminishing the sensibility to irritation.

Lastly, blisters exert a stimulant operation on the general system, and raise the vigour of the circulation.

Hence their utility in fevers of the typhoid kind, where extreme debility prevails. From their peculiar operation too, they are the only remedy that can be used to obviate the local inflammation of the brain, or other parts, that sometimes exists in fevers of this kind, as they contribute to resolve it without reducing the strength of the system.

It is also from their stimulating power, and perhaps from exciting pain, that blisters are of advantage in apoplexy and paralysis.

RUBEFACIENTS operate precisely in the same manner as blisters; they excite pain and inflammation, but only in an inferior degree, so that no fluid is discharged; and by these effects they more peculiarly obviate local inflammation. They are used, therefore, for the same purposes.

EPISPASTICS AND RUBEFACIENTS.

MELOE VESICATORIUS.
EUPHORBIUM.
PIX BURGUNDICA.
SINAPIS ALBA.
ALLIUM SATIVUM.
AMMONIA.

CANTHARIDES. Meloe Vesicatorius. Lytta Vesicatoria.

UNDER the history of this substance as a diuretic, it has been remarked, that it is a still more important article of the Materia Medica as an epispastic. It is the substance, indeed, which is now almost exclusively employed to raise a blister, as it acts with certainty, and is not liable to induce that deep-seated ulceration, which sometimes follows the application of other acrid substances that have been used for the same purpose. The cantharides in powder is mixed with lard and wax, so as to form a plaster of a proper consistence, which is applied to the part, generally for 10 or 12 hours: at the end of that time, the proper vesicle is usually formed; it is then cut, to allow the serous fluid to be discharged, and the inflamed part is dressed with any mild ointment. Camphor has been sometimes added to the blistering plaster, with the view of obviating the strangury which is liable to be occasioned. But it is very doubtful if it has any such effect: the plentiful use of diluents, while the blister is applied, prevents it much more certainly; and it is always proper when a blister is applied, especially if large, or in inflammatory diseases, to order the patient to drink freely of any mild diluent liquor. Where the strangury does occur, from the application of a blister, it is relieved by an enema of tepid water, with a little of expressed oil, and 30 drops of tincture of opium.

In some diseases, as in apoplexy, it is of importance to be certain of the operation of an epispastic, and to have its effect produced in a short time. To attain these, a compound plaster is ordered by the Edinburgh College, Emplast. Meloes Vesicat. Comp. in which the stimulating and epispastic power of the cantharides is increased by the addition of other acrid substances, burgundy pitch, turpentine, verdigrease, mustard and pepper.

After a blister has been raised, it is often of advantage to convert the serous discharge into one of a purulent nature, by exciting suppuration, or to form what is termed an Issue: this can easily be effected by the application of any acrid stimulating ointment; one composed of wax and oil, with a small proportion of cantharides, is commonly used for this purpose, as by the irritation it excites, it keeps up the inflammation, and at length produces suppuration. Any foreign body retained on the inflamed part answers the same purpose. What are named Orange Peas, the small unripe fruit of the orange, polished, are usually employed, as by their odour they cover the fœtor of the discharge. One of these is retained on the blistered part by a slip of adhesive plaster, and by the irritation it occasions keeps up a constant discharge. A seton, or cord introduced by means of a needle, answers the same purpose. When by any of these methods a puriform discharge is established in a part, considerable effects arise from the morbid action which it continues, and the evacuation it occasions. It is a practice often employed with advantage in asthma, paralysis, and a number of chronic affections.

EUPHORBIUM. Euphorbia Officinalis. (Page 442.)

THIS resinous substance, already considered as an errhine, is a powerful vesicatory. It enters into the epispastic compositions of the farrier, and might be employed, mixed with other epispastics, when it is of importance to obtain the effects of a blister in their full extent, speedily and with certainty.

PIX BURGUNDICA. Burgundy Pitch. Pinus Abies. *Monœcia. Monadelph. Coniferæ.*

THIS resinous concrete is obtained by exudation from incisions made in the trunk of the tree. It is boiled with a small quantity of water; is strained; and when cold forms a concrete resinous matter, retaining a little essential oil. As a rubefacient, it is spread upon leather, and applied to the skin: it excites a slight degree of inflammation, and an exudation of serous fluid, without entirely separating the cuticle, so as to produce a blister. Hence it is less painful in its operation, and the application of it can be continued for a considerable time. It is used with advantage in catarrh, pertussis and dyspnœa.

Offic. Prep.—Emp. Pic. Burg. *Dub.*

SINAPIS. Mustard. (See page 332.)—The flour of mustard-seed, mixed with an equal part of wheat-flour or crumbs of bread, and made into a paste with vinegar, forms what is named a Sinapism, an application which acts as a powerful rubefacient. It is applied to the soles of the feet in typhoid fevers, where there is extreme de-

bility, or determination to the head. It is used in the same manner in comatose affections; the application of it in either case being continued for an hour or two. It soon excites a sense of pain, and if applied long produces inflammation.

Offic. Prep.—Catap. Sinapeos. *Lond. Dub.*

Allium. Garlic. (See p. 424.)—The bruised root of this plant, applied to the soles of the feet, produces effects similar to those of the sinapism, and is used for the same purpose. It is less powerful, and its odour is ungrateful.

Ammonia. Ammonia.

The solution of ammonia in water (Aq. Ammoniæ) is obtained by decomposing muriate of ammonia by lime, with the assistance of heat, the ammoniacal gas being absorbed by water, through which it is transmitted. The solution has a very pungent odour, and applied to the skin acts as a rubefacient. The common form under which it has been employed, is mixed with two or three parts of expressed oil, with which it forms a thick saponaceous compound, formerly known by the name of Volatile Liniment. A piece of flannel moistened with this, and applied to the skin, soon excites pain and superficial inflammation. It is often employed instead of a blister to the throat, in angina tonsillaris, being less painful, yet frequently effectual. It is also sometimes applied by friction to relieve the pain of rheumatism.

Offic. Prep.—Ol. Ammon. *Ed. Dub.*