

A few remarks on the uses and mode of applying the new materials lately introduced by the Patent Epithem Company, as a substitute for poultices and fomentation cloths / [Alfred Markwick].

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A
FEW REMARKS
ON
THE USES AND MODE OF APPLYING THE
NEW MATERIALS
LATELY INTRODUCED BY
The Patent Epithem Company,
AS A SUBSTITUTE FOR
POULTICES AND FOMENTATION CLOTHS;
AND ALSO, AS
A PROTECTOR TO THE CHEST,
AND
A VALUABLE REMEDY IN CASES OF RHEUMATISM,
SORE-THROAT, TIC DOULOUREUX, ETC.

By **ALFRED MARKWICK,**
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1846.

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( **GRATIS.** )





## OPINIONS OF THE PRESS.

"The Impermeable Piline is, in our opinion, calculated to secure general public patronage. In this chilly and variable climate, effectual defences against the colds and other attacks, which so frequently end in pulmonary consumption, are matters of general interest to all classes of the community." "Mr. Markwick's invention appears to combine all the requisites of an effectual chest protector." "We have little doubt but as this very useful article becomes known it will at the same time become very popular." "The Impermeable Spongio Piline is in addition much cheaper than the articles," (poultices and fomentation cloths), "it is meant to supersede, and on the ground of economy alone, we should imagine will be very generally adopted in all cases where such applications are required"—*Advertiser*, Oct. 13th, 1846.

"A new and valuable material," (the Impermeable Piline), "as a protector to the chest, and in all cases of rheumatism, sore throat, tic douloureux, &c." "As a substitute for poultices and fomentation cloths," (the Impermeable Spongio Piline), "it is perfectly efficacious, all the objections attendant upon the latter being entirely done away with, besides the new material combining in itself numerous advantages hitherto unknown."—*Morning Herald*, Oct. 16th.

"Very rarely are we able to express so favourable an opinion of an invention, as we now feel bound to do, of Mr. Markwick's patent Epithems" "The Impermeable Piline is, in our opinion, calculated to secure general and public patronage." "We trust the inventor will reap those advantages he so much deserves for producing an article combining so many advantages for the public benefit."—*Family Times and The Railway Bell*, Oct. 17th.

"In a surgical point of view, the material seems to have supplied, in the most perfect manner, a great desideratum, especially combining cleanliness with economy. However, we think that the Epithem may extend its utility beyond the walls of the hospital, or the chamber of the invalid. One description of the fabric, especially, would form an admirable appendage to the outfit of every soldier about to serve in tropical climates."—*United Service Gazette*, Oct. 17th.

"Mr. Markwick's newly invented Epithem, as a neat, cleanly substitute for those nasty contrivances, blisters and poultices is certainly worthy of the patronage of the medical world." "Being saturated with warm water, it forms an excellent poultice, having all the softness, heat, and moisture of a poultice, without its weight." "It," the Impermeable Piline. "is also used as a chest preserver, it answers all the purposes of a prepared hare skin, while it has this advantage over a hare skin—moisture does not make it either useless or uncomfortable."—*Sun*, Oct. 16th.

*Opinions of the Press continued, pages 11, 12.*



## FEW REMARKS,

*&c. &c. &c.*

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THE numerous and highly successful trials that have been made both by myself and others, and the very favourable opinions that have been expressed by several professional men of the Epithems,\* to which I am about to allude in the following pages, sufficiently warrant me in recommending them with the utmost confidence to the public as being most valuable and effectual materials for the purposes for which they are respectively applicable.

These articles are of two kinds, and are termed according to their structure, the "IMPERMEABLE SPONGIO PILINE" and the "IMPERMEABLE PILINE;" the former being intended for the application of warm fluids to the surface of the body, and consequently as a substitute for *poultices* and *fomentation cloths*; and the latter as a *protector for the chest, a covering for rheumatic joints, &c. &c.*

As regards the "IMPERMEABLE SPONGIO PILINE," it may be as well before alluding to its uses, to explain in as clear and non-technical a manner as possible:—*First*, The nature of poultices and fomentations, and the mode in which they act; *Secondly*, what their effects depend on; and *Thirdly*, to point out not only their inefficacy, but also the very great objections attendant upon their employment. By this means we shall be better able to fully appreciate the advantages of the new Epithems.

\* The word Epithem is derived from two Greek words ἐπὶ upon, and τιθεῖμι to place, and is applied to all local applications, whether dry, liquid, or soft, that are employed with a view to produce certain effects.



I.—*On the nature of Poultices and Fomentations, and on the mode in which they act.*

Poultices are external applications of a pulpy and tenacious consistence, possessing properties varying according to the nature of the heated fluid which enters into their composition. They may be said to consist of two parts, the *fluid part* and the *body*; the latter being formed generally of bread, linseed-meal, potato-starch, bran, or malt, and intended for the purpose of giving to the Epithem its proper tenacity, and to act merely as a recipient for the former. The fluid part consists of simple water, or some mucilaginous decoction, and any addition made to it for the purpose of increasing the sedative, or soothing properties of the common emollient poultice which I take as the type, or of converting them into those of a stimulating or astringent character, constitutes what is called the *accessory*.

Fomentations on the other hand, are heated fluids, either simple or medicated, applied to the surface of the body by means of flannel or sponge. They differ, therefore, from poultices; first, in the substance or material used for applying them not being of a pulpy or tenacious nature; and secondly, in their being much more frequently renewed. They both act by relaxing the skin, opening the pores, increasing the exhalation from the surface, and soothing not only the part to which they are applied, by their direct action on the nerves of the skin, but also, by sympathy with these nerves, parts more deeply seated. To what extent, however, these results are produced will be presently shown.

II.—*What their effects depend on.*

It is well known that the whole of the beneficial effects of the common emollient cataplasms or poultices and fomentations are solely dependent on the *warmth and moisture they contain*. Hence it is evident that the *longer* these can be *retained*, the *more favourable will be the results of their application*.



The popular idea that much of the virtue of poultices is due to the "drawing" properties, as they are termed, of the substance of which their *body* is formed, is a very erroneous and decidedly prejudicial one. Neither the bread nor the linseed-meal, &c. has *anything whatever* to do with the action of a poultice, unless it be, as I shall presently point out, to destroy in a great measure the effects that are required to be produced. On the contrary, as I just now stated, it is merely the vehicle for the warm fluid, like the flannel or sponge in fomentations. This important fact cannot be too strongly impressed on the mind of the reader, and the remarks which I shall have occasion to make respecting the objectionable nature of poultices will tend very materially towards this most desirable and most essential object.

III.—*On the objections to, and the inefficacy of, the ordinary poultices.*

The principle objections to the common poultices are :—

First.—That they soon get cold and dry, particularly if the part be very hot, and then no longer produce the requisite, beneficial, and soothing effects.

Second.—That they in consequence require to be frequently changed, a very great disadvantage, from the trouble, annoyance, and aggravation of the pain it occasions the patient.

Third.—That the material, or substance which is usually employed to render them of the proper degree of consistence, is of that nature as to enter quickly into decomposition, especially if the temperature of the part to which it is applied be very elevated. Very fetid disagreeable gases then become evolved, which are so irritating as not only to destroy the emollient and relaxing properties of the warmth and moisture, but also to greatly aggravate the disease for which the Epithem is employed, and, likewise in many instances to produce a very painful pustular eruption, which it is evident must considerably increase the patient's suffering.



Fourth.—That they have a very unpleasant sour smell, which alone must render them exceedingly disagreeable applications, particularly when applied to the head or face.

Fifth.—That they prevent the fluid from coming into that direct and effectual contact with the skin, which is so absolutely necessary to enable it to produce the whole of its beneficial action. I need only refer for confirmation of this fact, to the *state of combination* in which it exists in the bread and more particularly in the linseed-meal poultice, a heavy, I may say doughy compound being formed, which, is in many very painful affections perfectly insupportable. This brings me to the

Sixth objection, *viz.* their weight. In fact, it is acknowledged by Mr. Liston, the surgeon, that *weight, putrefactive fermentation, stench, and filth*, are inseparable from them.

As regards the *inefficacy* of poultices, it follows from the above remarks, relative to their objectionable nature, that they *must* be very ineffectual remedies. For instance, we have seen that the whole of their soothing and relaxing action is dependent entirely on the degree of warmth and moisture they contain, and on the time they are capable of retaining it; and, as one of their principal objections consists in their possessing this most essential requisite to a very slight extent only, that is to say, that they cool too quickly and soon become dry and harsh, it must be at once apparent that they are by no means calculated for the conveyance or application of warm fluids to the surface of the body. And when it is considered that they are allowed to remain *unchanged* for as long as three, six, eight, and ten hours, and sometimes longer, during nearly the whole of which time they are absolutely useless, nay, even injurious, it cannot be wondered at that they should have been, in a great measure abandoned by medical men. Indeed Mr. Liston remarks, when speaking of them in his *Operative Surgery*, that “*a poultice, the very name of which is associated with putrefaction and nastiness, has very*



*seldom been employed, either in my hospital or private practice for the last ten or twelve years; in fact, our nurses at the North London have now almost forgotten the mode of forming the abomination."*

The great objections to fomentation cloths, are :—

First.—That their temperature cannot be maintained for a sufficient length of time, and hence they require to be frequently renewed.

Second.—That the materials themselves, and the coverings necessary to moderate their cooling, render them much too weighty.

Third.—That much time and heat is lost in wringing them, as must be evident from the following paragraph in Dr. Thomson's *Materia Medica*. "*The flannels should be at least three yards long, and the ends sewed together; they should be quickly wrung dry by sticks passed through them, and turned in opposite directions; then applied as lightly as possible over the parts to be fomented; and the whole enveloped in dry flannel.*"

This paragraph serves also to illustrate the second objection, namely, *their weight*; for I apprehend that three yards of damp flannel, to say nothing of the additional dry envelope to keep them warm, and the bed-clothes, will not be found the *lightest article* in the world, by a patient suffering from very severe and painful inflammation of the bowels, for instance, or their serous covering the peritoneum.

Having now made ourselves acquainted with the objectionable nature, and the inefficacy of the ordinary poultices and fomentation cloths, we are prepared to examine into the uses, the advantages and the superiority of the material lately invented to replace them.

This is an article composed of a mixture of sponge and wool, felted together, so as to form an even and soft fabric, which may be made of various degrees of thickness, and afterwards rendered impermeable by a coating of india-rubber. Its texture, therefore, is spongy, and hence it is enabled in the first place to hold a considerable quantity of fluid, which it readily yields to the part to which it is applied, and in the



second, renders it a bad conductor of heat; consequently, and the evaporation being at the same time prevented by the caoutchouc backing, it retains its warmth and moisture for a much longer time, and produces much more beneficial results than any poultice or fomentation can do. The aqueous vapour, which is thus effectually prevented from passing off by the india-rubber, *keeps up the temperature of the Epithem, and greatly promotes for a considerable time, and without the necessity for frequent renewal its soothing and relaxing action.* Indeed, so true is this case, that when it has been allowed to remain even for twenty-four hours, it has been found, at the end of that time, perfectly *warm and moist*; and it is to this very important property of retaining the temperature of the fluid for so long a time, that I attribute the very beneficial and highly satisfactory results that have followed its employment in numerous cases. (See a Report by the author, in *The Medical Times*, for September 19, 1846, of two cases, in which it was applied after poultices had failed, with very marked good effect.) Besides these advantages, its little bulk, its extreme lightness, and its perfect freedom from any unpleasant smell, render it of very extensive application. Thus it is well adapted for all parts, however uneven, and for all cases, where heat and moisture are required, of no matter how painful a character, as in the former it can be retained in its place with the greatest facility; while in the latter it causes not the slightest inconvenience to the patient. For the head and face, likewise, it constitutes a delightfully clean, soft, and soothing epithem; and for the groins, where the ordinary poultice can be but imperfectly retained in consequence of its weight and pultaceous nature, is extremely useful in enabling the working-man, whose maintenance, as well as that of his family depends upon his exertions, to go about his usual avocations with the swelling covered by a comfortable, light, convenient, and beneficial poultice.

Another great advantage of this newly invented article is, that it can be had of various shapes, as



gloves for instance, and of any size, so that a whole limb, nay even the whole body, if necessary, may be *poulticed* with the greatest ease, it being, in fact, a ready made poultice, so to speak, requiring only to be impregnated with hot-water, or some medicated decoction to be fit for use. A vast amount of time and trouble is thus saved, and all chance of the poultice being "*badly made*" avoided; for I may mention, that although so common or rather popular a remedy, but few persons know how to form it.

From the above remarks on the nature of this material, it is, I think, but fair to conclude that its *uses* will be much more *extended* and *valuable* than those of any other ever yet employed.

Moreover, it is *cheaper* than either bread, linseed-meal, &c., or flannel; and when this is considered, in connexion with its *unobjectionable* qualities, it is evident that it must be invaluable, particularly to the poor who can but very ill afford the expense attendant upon a long course of poulticing, especially with bread, the "*staff of life*."

The principal object in using the "*Spongio Piline*," for such is the name given to this new material, is to impregnate it with as much liquid as it can conveniently hold without running out. It is advisable, however, not to wet the "*impermeable backing*," so that no time or heat may be lost in drying it, and that the patient's linen may not be moistened. This may be avoided in two ways, either by placing the Epithem on the surface of the water, and allowing it to completely saturate itself, the superabundance being afterwards expressed by gently passing the hand across it, or by pressing the fluid from the borders; or by placing it on a table, or on the hand, and pouring the water on it.

The "*Impermeable Piline*" is a fabric formed of wool and other materials that are bad conductors of heat, and backed by a composition, of which india-rubber forms a part, and which is, in some cases, according to the purpose for which the Piline is employed, covered by silk so as to give it a



neat and even elegant appearance. It is intended, as we have seen, as a *protector* to the *chest*, and as a covering for "rheumatic joints, &c., and will be found extremely useful in cases of sore-throat, tic-douloureux, and other diseases. As a protector to the chest, it will prove *invaluable*; indeed, when I say that it effectually retains the warmth of the part to which it is applied, and entirely prevents all contact of cold or damp, its superiority over hare-skins, and, in fact, every thing that has ever been before invented, must be at once apparent. It excites the vessels of the surface, increases the exhalation from them, and produces a degree of counter irritation, which is of so much advantage in many cases. It is made of various degrees of thickness, so as to adapt it both for constant wear next the skin, and as an occasional covering to be placed between the waistcoat and the shirt, on leaving heated rooms, places of worship, theatres, &c. &c. or when exposed to the weather. Hence, it is well adapted for persons in travelling, for railway-guards, and policemen.

When moistened with some stimulating liniment, it will be found an excellent substitute for what are called "WARM PLASTERS," unattended by the very great objections to which these are subject. Thus they do not like these adhesive applications in any way confine the motions of the chest, but on the contrary allow of its free expansion; neither do they soil the linen or the person, nor occasion that unpleasantness, and the inconvenience that is necessarily attendant upon the use of these very disagreeable remedies.

For various diseases in animals also these new materials will be particularly useful. This, however, is a subject rather foreign to this Pamphlet, therefore, I will do no more than merely mention the fact, leaving it to others to whose province it more particularly belongs, to enter more into detail respecting it.



"The chest protector is made impermeable to air or wet. Covered with silk, it has a neat appearance, and may readily be slipped over the chest in a moment."—*Britannia*, Oct. 17th.

"It affords us much pleasure in being able to recommend Markwick's patent Epithems. The Impermeable Piline will be found to constitute one of the most available chest protectors ever invented, and will no doubt prove an admirable auxiliary to the hydropathic system, and an extremely useful application in cases of rheumatism, &c. &c. &c.—we have no hesitation, therefore, in recommending it. The Impermeable Spongio Piline, is intended for applying warm fluids to the surface of the body. The immense quantity of fluid it holds, and the great length of time it retains its heat, must render it far superior to hot poultices and fomentation cloths, for which it forms a very excellent substitute. It will, we doubt not, be greatly sought after by the profession and the public. These Epithems are also admirably adapted for persons employed on railway stations, as well as travelling, for wharfs, &c.—in fact all those exposed to cold and wet."—*Mining Journal*, Oct. 17th.

"The new chest protector is composed of wool and an impermeable covering, and consequently admirably calculated to resist the noxious influences of damp and night air. The brief trial we have as yet given, has fully satisfied us of the value of the invention, which in such a climate as ours, and for the purpose of travelling, is of very great value. Its title of 'Chest Protector,' is assuredly well justified."—*Satirist*, Oct. 17th.

"Among the useful inventions of the present day, we shall be much mistaken if two, just brought out under the name of Epithems, are not found to take the first rank." "The Impermeable Spongio Piline, is intended to supersede the ordinary poultices, and will, we think, most certainly do so; being not only more efficacious, but combining cheapness, cleanliness, and durability. The Impermeable Piline, as a protector to the chest, appears to be as much superior to the hare skin and warm plasters, as the article we have above described is to the ordinary poultice."—*Bell's Weekly Messenger*, Oct. 17th.

"Newly invented materials, intended to be used for sanatory purposes, and which, we have no doubt, will be very generally adopted." "The Impermeable Piline is applicable to many purposes, but chiefly as a protector of the body against external cold. Thus it will be found an admirable substitute for the hare-skin chest protector; nor will it be found less useful as an external covering for the chest upon leaving a heated room, theatre, &c.; and being very light and small in bulk, it may be carried about without inconvenience." "The Impermeable Spongio Piline is liable to none of the objections of poultices." "Two or three pieces of it in a family would be of great value."—



"For those whose complaints require the aid of a blister, or such relief as a cataplasm can afford, it is of great service, and can be applied by anybody. To those who are accustomed to wear hareskins, or which are called 'comforters,' on the chest, it is equally important, and much more efficacious than any thing used for that purpose."—*Bell's Life*, Oct. 17th.

"This, the Impermeable Spongio Piline, is designed as a substitute for the poultice, and it is admirably suited for the purpose. It is as soft as bread or linseed:" "By this invention therefore, comfort, convenience, and economy, are equally consulted." "The materials are trifling in price and certainly, considering their utility in almost every kind of illness, no family ought to be without a supply of them. A few shillings will stock a house. We can with the utmost confidence recommend them to the attention of the readers of the *Critic*."—*Critic*, Oct. 17th.

"The materials in question, like all other clever and practical contrivances are of simple construction. Their valuable uses and easy mode of application are seen at a glance." "Articles," (hareskins) objectionable for many reasons, objections which may not be applied to this new invention," (the chest protector.) "Every housekeeper should keep some of it," (the substitute for poultices and fomentation cloths), "at hand for it is cheap." "Homely and familiar associations should be hung about it, for it is destined to supersede the antiquated process of applying soaked bread, or some other consistence, which speedily becomes dry, hardened and putrid." "We can therefore with much confidence recommend the Epithems to the public, as articles that are likely to be highly prized for the many advantages belonging to them."—*Era*, Oct. 18th