

great pain in paroxysms. Pulse 110, small, weak, and sometimes intermitting; tongue dry and furred; and she appeared far too much exhausted for further depletion.

I saw, just at this time, Dr William Stokes' excellent paper in the Dublin Journal on the Use of Opium, where antiphlogistics are precluded, and I determined to try it. I ordered, therefore, twelve pills, each containing one grain, and told the patient to take one whenever the paroxysms of pain recurred.

The most beneficial change resulted. In a few days the pain ceased, the pulse became slower and fuller, the tongue cleaner, and gradually the swollen *uterus* diminished in size. The patient is now perfectly well.

During the time she took the opium no other remedies were employed; and, when I prescribed it, she was apparently all but out of the reach of medicine.

Young women after their first confinement appear peculiarly subject to inflammation of the mammary gland, terminating in abscess. Whether or not this may be explained from the analogy of secretion with inflammation, as suggested, I think, by Meckel, future observations may *determine*. There is one very common fact, which would appear to support this view. Many cases occur in which, after milk has been secreted, the breast continues to swell,—becomes hot, painful, and hard. The secretion is then suspended. Remove now the *excess* in the action going forward, the breast will be restored to its former state, and the secretion reappear.

To obtain this effect leeches may be necessary, or even a general bleeding, with fomentations and purgatives, combined with tartar-emetic in small doses.

When these means failed and abscess formed, it was generally allowed to break spontaneously. None of the cases were tedious. The wound speedily healed, leaving in some, however, a degree of hardness after it.

We did not find the patients more liable to subsequent attacks of abscess than those who had *not* previously suffered from it.

104, *Stephen's Green, Dublin.*

ART. VI.—*An Account of an Improved Mode of Administering Sulphate of Magnesia (Epsom Salt), whereby it is rendered an agreeable, safe, and efficacious purgative, applicable to almost every case in which a purgative is required.* By JAMES HENRY, M. D. Vice-President of the King and Queen's College of Physicians in Ireland.

SATURATE any quantity of cold water with sulphate of mag-

nesia ; filter through paper, and add to every seven ounces of the solution one ounce of the *dilute* sulphuric acid of the Dublin or Edinburgh pharmacopœias.

Dose.—One table-spoonful in a wine-glass of water.*

In those cases in which the bowels are very easily moved, a single table-spoonful is sufficient to produce a considerable purgative effect.

In ordinary cases, a table-spoonful taken an hour or two before breakfast produces one or two evacuations immediately after breakfast.

In other cases, the dose is to be repeated once or twice, at intervals of two or three hours, according to circumstances.

Where the symptoms are urgent, a table-spoonful may be given every hour until the effect is produced ; and where the urgency is extreme, a saturated solution of the salt, containing only one-half of the above-mentioned quantity of acid, may be given in doses of two table-spoonfuls, repeated every hour.

This combination of sulphate of magnesia and sulphuric acid, administered according to the preceding directions, possesses the following properties.

1. It is an effectual purgative, never failing to move the bowels in all cases in which the bowels can be moved by medicine. I am not acquainted with any purgative which is more certainly effectual.

2. It is quick in its operation ; the effect being produced in ordinary cases within two or three hours after the first or second dose, and a necessity rarely arising for the continuance of the medicine beyond the third dose.

3. It is safe, never purging so as to produce exhaustion.

4. It does not give rise to the slightest degree of nausea, but, on the contrary,

5. Quickly puts a stop to nausea, and appeases irritability of the stomach.

6. Flatulence, that most distressing attendant upon constipated bowels, is immediately and signally relieved by this medicine, which not only promotes the expulsion of the *flatus* already generated, but diminishes the tendency to its further secretion.

7. In a few minutes after this medicine has been swallowed, so agreeable a sensation of warmth is felt in the stomach, that the medicine is not only readily taken, but even relished by many persons whose stomach will not retain any other liquid purgative, unless impregnated with the hottest aromatic tinctures.

* Each table-spoonful contains about two drachms of sulphate of magnesia, and half a drachm of dilute sulphuric acid.

8. The operation of this medicine is not attended by either sickness, faintishness, or griping. In this respect the acid saline solution possesses a remarkable superiority over all the purgatives in common use.

9. This medicine can be taken every day, or every second day, for a considerable length of time, not only without impairing the stomach or other digestive organs, but with manifest advantage to them. *

10. The continued use of this medicine does not produce that irritation of the *rectum* which so commonly attends the continued use of other purgatives.

11. This medicine is not disagreeable to the sight, being perfectly limpid and transparent as the purest spring water.

12. It has no smell.

13. The bitter nauseous flavour of the sulphate of magnesia being almost completely hidden by the acid, the taste of the solution can hardly be said to be at all disagreeable, and is certainly much less so than that of most other liquid purgatives.

14. It is cheap.

15. It is easily procured everywhere.

16. It keeps for an unlimited length of time.

From the experience of three years, during which I have made daily use of this purgative in the course of my practice as a physician, I have ascertained that the acid saline solution possesses the properties which I have just enumerated. †

The great superiority of this mode of combining and administering sulphate of magnesia, above all the other modes in which it has been hitherto administered, will appear from a comparison of the effects of the solution made, as above directed, with those of sulphate of magnesia, whether administered as a domestic remedy, or under the direction of the physician.

Sulphate of magnesia, when used as a domestic remedy, is dissolved in warm water, in the proportion of one or two ounces of the salt to a large tea-cup of water. This is taken at a single draught. Thus taken, sulphate of magnesia seldom fails to produce several copious liquid evacuations, and has accordingly acquired great celebrity, both in these countries and on the continent of Europe, as a safe and efficacious purgative. In this form, however, it is attended by the following inconvenien-

* The frequently repeated contact of the acid saline solution being injurious to the teeth, it is useful to adopt the precaution of taking the medicine through a quill, or from the spout of a small tea-pot, whenever it is necessary to continue its use for any length of time.

† Several persons to whom I have given this medicine have told me, that, some years ago, they obtained a medicine strongly resembling it, both in appearance and properties, from a gentleman in this city, since deceased, who prepared it himself, and vended it as a nostrum.

ces, from all of which the acid solution above described is entirely free.

1. It is to all persons extremely disagreeable, and by many cannot be swallowed at all.

2. So large a quantity taken at one dose is apt to produce, almost immediately, heaviness, headach, and even nausea.

3. This dose, as it is called, of Epsom salts operates severely, producing almost always so many copious liquid evacuations, as to inconvenience even the robust, and not unfrequently to reduce invalids and debilitated persons to a state of dangerous exhaustion.

4. A distressing flatulency of stomach and bowels accompanies its operation, and continues for some time afterwards.

5. Although the immediate effect of a dose of Epsom salts is to open the bowels freely, yet it is almost invariably found that the costiveness which follows the operation of the medicine is worse than that which it was taken to relieve.

In order to obviate the inconveniences attendant upon the operation of sulphate of magnesia, administered uncombined and in a full dose, physicians usually administer it in divided doses, and in combination with various other medicinal substances. Thus they frequently direct two ounces of the salt to be dissolved in from six to eight ounces of the acid infusion of roses, and one or two table-spoonful of the solution to be given every second or third hour. By this means they obtain the following advantages.

1. The medicine being taken in divided doses, the ill effects of a full dose taken at once are avoided.

2. The disagreeable taste of the salt is in a considerable degree hidden by the infusion of roses, and by the small quantity of sulphuric acid contained in it.

3. The acid contained in the infusion of roses contributes in some degree to make the salt lie more easily on the stomach, and to prevent griping.

But although sulphate of magnesia thus administered possesses these advantages over sulphate of magnesia as taken popularly, and without medical advice, yet it is still defective as a remedy; because, first, the proportion of the salt to the water in which it is dissolved is so small, that a great quantity of the solution must be taken before the effect is produced, by which means unnecessary trouble is given to the patient, and much time lost. Physicians, sensible of this disadvantage, do not usually administer the salt in this form, except to persons whose bowels are easily moved by medicine; and if they do administer it in this form to others, are under the necessity of giving a mercurial or resinous pill on the preceding night, which, by its ac-

tivity, may compensate for the inactivity of the salt. Thus, two medicines are used, where, if a saturated solution of the salt were employed, one would suffice. *Secondly*, The quantity of acid in the infusion of roses is not sufficient to hide the disagreeable flavour of the salt, much less to correct its nauseating and griping properties. Physicians, therefore, very often add a drachm, or two drachms of the dilute sulphuric acid to the solution, thereby rendering it less nauseous and griping. But this quantity of acid is, as I have ascertained by repeated trials, utterly insufficient to neutralise effectually the disagreeable properties of the salt,—*an entire ounce of the acid being required for every seven ounces of the solution.*

On other occasions, the physician, instead of the infusion of roses, uses some one of the warm distilled waters as a solvent for the salt, and adds to the solution either a purgative or an aromatic tincture, or both. All these complicated processes are used to effect that which is more readily, more certainly, and more cheaply effected by the simple formula, which it is the object of this paper to recommend. Prepared according to that formula, the acid saline solution is a purgative capable of almost universal application, being not only well suited for domestic use, and for the practice of the physician, but being pre-eminently adapted for employment as the ordinary purgative of hospitals, dispensaries, and other public institutions, and more especially of the army and navy services.

It is adapted for domestic use, because it is safe, efficacious, easily prepared, devoid of disagreeable taste and smell, does not produce nausea or griping, and keeps for an unlimited length of time.

It is suited to the practice of the physician for the same reasons, and also because it is not only an elegant-looking preparation, being, when used singly, as transparent as the purest spring water, but is easily given in combination with other medicinal substances, as sulphate of quinine, &c. By diminishing the quantity of the salt, or increasing that of the water, as well as by the increase or diminution of the dose, the physician can adapt the medicine still more accurately to the particular circumstances of each case. He can also at pleasure alter its flavour and appearance, by adding to each half-pint of the solution, half an ounce of the infusion of roses, or of any coloured syrup,—as the syrup of red poppies, which gives the solution a rich red colour, or the syrup of saffron, by which it is rendered a beautiful yellow. Except in a few rare cases, the quantity of the acid ought not to be much increased beyond what I have specified. I have, however, given it in double the quantity, without any bad effect; but I would not recommend the practice for general adoption.

The acid saline solution is besides peculiarly adapted for the use of hospitals, dispensaries, and the army and navy services; because, in addition to the valuable properties just enumerated, it is cheap, easily procured, easily carried,* and may be made to supply the place of almost every other purgative.

In all these respects it is infinitely superior to the ordinary purgative of our public institutions, which consists of an infusion of senna, holding in solution either sulphate of magnesia or sulphate of soda, or both, and commonly known by the name of the "black bottle." This medicine, in as much as it contains senna, is,

First, Expensive in the first purchase.

Secondly, Containing senna it will not keep, for which reason much of it is lost, and the expence thereby considerably enhanced.

Thirdly, Containing senna, it has a most nauseous odour.

Fourthly, Containing senna, it has a most disagreeable appearance, whence its popular name, "black bottle."

Fifthly, Containing senna, it is apt to be rejected by vomiting. This emetic property of the medicine is, when not desired, always distressing, sometimes injurious to the patient, diminishes and delays its purgative effect, and increases the expence, in as much as it makes a greater quantity necessary.

Sixthly, Containing senna, it produces at the time of the operation of the medicine considerable sickness and griping.

To obviate this inconvenience, it is usual to combine aromatic tincture with it, by which not only is the expence very considerably increased, but the medicine rendered less fit for many cases.

Seventhly, The ordinary dose of the "black bottle" is one wine-glassful, which is at least thrice the bulk of the largest dose that is ever required of the acid saline solution.

Eighthly, Senna cannot always be procured, especially in country parts; and when it can be procured, is frequently of bad quality, its high price affording an inducement for the introduction of inferior qualities into the market, and for the adulteration of the superior kinds by the admixture of various substances.

Ninthly, The superior kinds of senna being the produce of a foreign country, the supply may be stopped by various accidents, as by war, foreign export, regulations, &c.

Tenthly, The money paid for senna is so much sent out of the country, while sulphuric acid being of home manufacture, the money expended on it circulates at home.

Eleventhly, For making the "black bottle," boiling water is

* It is scarcely necessary to observe, that in the army and navy services, the salt should be carried in the dry state, and the solution made only when wanted for use.

required, and, even after the boiling water has been procured, an hour must elapse before the senna is sufficiently infused. As the infusion does not keep more than two or three days, (and in warm climates not even so long,) only a small quantity of it can be made at once. On the other hand, the acid saline solution can be made in the space of a few minutes, and in any quantity.

I have instituted the preceding comparison between the acid saline solution and the "black bottle," because the latter is the ordinary purgative of our public medical institutions. It is as unnecessary, as it would be tedious, to compare the acid saline solution with each individual purgative employed by physicians.

Every physician will of course be guided in the choice of his purgatives by the peculiar circumstances of each case, but there is no purgative so generally applicable to all cases, so safe, so agreeable, and at the same time so efficacious, as the acid saline solution. It is the reproach of our art that the means which we employ to remove disease are almost always disagreeable, sometimes as disagreeable as the diseases themselves.

Our purgatives particularly subject us to this reproach, and in an especial degree, our liquid purgatives. If I shall have succeeded in introducing to general notice a liquid purgative which is not disagreeable, either to the taste or smell or sight, while at the same time it is efficacious, without producing sickness or griping, I shall feel that I have contributed somewhat to lessen the reproach hitherto but too justly cast upon our art, and that the time which I have bestowed on this subject has not been thrown away.

Dublin, September 1833.

ART. VII.—*Cases of Mental Derangement terminating fatally, with the Appearances disclosed by Inspection.* By JOHN SMITH, M. D. Fellow of the Royal College of Physicians, Edinburgh, and Physician to the City Charity Work-House and Lunatic Asylum.

1st. JOHN FERGUSON, æt. 33, black hair, and sallow complexion, stout make, a discharged soldier, unmarried, was admitted into the Asylum on the 18th July 1818, in a state of deep melancholy. He was dismissed on the 28th of the following March; but, having become worse, he was re-admitted in May. He was now sunk in the deepest melancholy and despair, indifferent to everything around him, and very averse to taking food. There was no rousing him to take exercise, or enter into conversation. He remained stationary with his eyes fixed and staring,