Records OF THE LOCK HOSPITAL.

BY
HENRY LEE, Esq., F.R.C.S.,
SURGEON TO THE HOSPITAL.

VI.—THE CALOMEL VAPOUR-BATH.

[Continued from page 54.]

GENERAL calomel fumigation may be used in cases where the administration of mercury by other methods is inadmissible. On account of the small amount of calomel required, it may be used, sometimes with the greatest benefit, even where other modes of fumigation, requiring larger quantities of mercury, cannot be borne. Two remarkable cases, illustrating this fact, are at present under my observation.*

Calomel appears, indeed, to have been formerly used for the purposes of general fumigation, as well as other preparations of mercury. But it was used in the same quantities as those other preparations, and was, therefore, open to some of the same objections as they.

M. Rapou published in Paris, in 1824, two volumes on Fumigations as employed in various diseases. The mercurial preparations which he recommended were cinnabar, Lalouette's mercurial powder (which consisted of a mixture of mercury and clay), calomel, and corrosive sublimate.

The quantity used of the first three, he recommended to be from "a quarter to half an ounce each time." The amount of the corrosive sublimate, he says, should not exceed five or six grains.

Even with these very large quantities, M. Rapou had only seen salivation produced in three instances, and these were of a very short continuance, and yielded to the use of ordinary baths. It should, however, be noted that M. Rapou recommended the mercurial fumigations to be used with steam, which, he said, calmed the system, softened the skin, and did not prevent the absorption of the mercury.

Now, all the methods of applying mercurial fumigation above mentioned required the use of a complicated apparatus, which private individuals would not command. In order to adapt this method to general use, it was necessary so to modify the apparatus that any one could use it in his own room; and this has now been most effectually accomplished. Mr. Langston Parker recommends an apparatus, for the use of

which the patient is placed on a chair, and covered with an oil-cloth lined with flannel, which is supported by a proper framework. Under the chair are placed a copper bath containing from half a pint to a pint of water, and a tinned iron plate, on which is put from one to three drachms of the bisulphuret of mercury, or the same quantity of the grey oxide, or the binocide, or other mercurial preparation; under each of these is a spirit-lamp.

The mode of treatment by this apparatus appears to have been most successful in Mr. Parker's hands. He says, "I never saw the most delicate patient, male or female, whose health was injured under the plan I recommend; and I have very rarely seen a disease that has not been cured. The experience derived from the treatment of many thousand cases warrants me in speaking thus positively on the subject." The apparatus recommended by Mr. Parker is not, however, one which a patient can use at his own house; nor, as far as I know, is a patient enabled to obtain such an apparatus for himself; or to give himself his own bath.

Using the same large quantities of the mercurial preparations as Mr. Pearson and Sir B. Brodie, it is somewhat remarkable that neither M. Rapou nor Mr. Langston Parker have seen any of the injurious effects of this remedy which were recorded by those gentlemen. This may be, perhaps, in a great measure, accounted for by the fact that both M. Rapou and Mr. Parker recommend the bath to be used so as to produce a very considerable amount of perspiration. Any action thus induced is determined to the skin, and the intensity of the specific action is thus preventing from developing itself in any internal part. Another, and perhaps a still more important point is, that, after the bath as employed by Mr. Parker, the body is "rubbed dry." In this process, a very large proportion of the mercury which has been deposited upon the surface is necessarily removed. In the calomel vapour-bath, as I have now used it for several years at the Lock Hospital and elsewhere, fifteen or twenty grains of calomel only are used; but that which is deposited upon the skin is allowed there to remain, and, by a slow process of imbibition, a part of it is probably absorbed into the blood. A continued slight action is thus maintained, and the danger of any violent or sudden effect completely obviated. It may be observed also that, if any very great amount of perspiration be induced, it will tend to remove the mercurial powder from the surface of the skin, and thus diminish the effects which would otherwise be produced.

Several different kinds of apparatus have been made for the purpose of administering calomel fumigation, since its introduction at the Lock Hospital. Mr. Matthews of Portugal Street constructed an apparatus which answered every purpose. It consisted of two spirit lamps, one of which volatilised the calomel, while the other boiled a small quantity of water. The patient sat over these, enveloped in a cloak or large blanket fastened round his neck, and became quickly surrounded by an atmosphere of moist mercurial vapour.

The most convenient calomel vapour-bath, and that which is now generally used, is one which was made at my request by Mr. Blaise, of 67, St. James Street. This was completed, after many experiments and modifications undertaken and di-

* In one case, a patient who had had his throat affected between eleven and twelve years, and who was unable to swallow even fluids without the greatest inconvenience and distress, was reduced to such a degree, that it was feared he would sink. The back of this patient's throat was one mass of phagedenic ulceration. Under the direction of Mr. Davis of Spring Gardens and myself, the calomel fumigating baths were administered every night; and, at the expiration of three weeks, the ulceration had become quite clean, the patient could swallow without any inconvenience, and had gained considerably in weight.

In the other case, a patient had had his penis "gradually wasted away" by phagedenic ulceration, until the ulcer was on a level with the serotum. The disease had gradually progressed. Having ordered him a calomel vapour bath every night, I had an opportunity of seeing him exactly three weeks and two days after he had commenced their use. The ulceration was at that period all but healed. Previously to trying the calomel baths, this patient had been subjected to all the ordinary modes of treatment.

rected by Mr. Pollock, surgeon to St. George's Hospital. In this apparatus, there is only one lamp, which sublimes the calomel and boils the water at the same time. In the centre of the top, immediately over the wick of the lamp,

is a small, separate, circular tin plate, upon which the calomel is placed. Around this is a circular depression, which may be one-third filled with boiling water. The apparatus is then placed on the ground, and the lamp is lighted. The patient sits over it, with an American cloth cloak, or a Mackintosh (also sold for the purpose by Mr. Blaise), fastened round his neck. He thus becomes surrounded by calomel vapour, which he is generally directed to inhale for two or three separate minutes during each bath. At the expiration of a quarter of an hour or twenty minutes, the calomel is volatilised, and the water has boiled away. A portion of the calomel is deposited, together with the condensed vapour of the steam, on the patient's body, and is there to be left to undergo a partial absorption. The quantity of spirits of wine used upon each occasion is so regulated, that the lamp goes out of his own accord about the same time as the calomel and the water disappear. The patient then gradually unfastens the cloak, and in about a minute he is sufficiently cool to put his night-dress on without much interfering with the very fine layer of calomel which covers his body. He must be particularly told not to wipe his skin, as by so doing he would necessarily interfere with the action of the medicine.

Of all the modes of administering mercury, fumigation is that which is attended with the least demand upon the patient's constitution. The amount administered in this way can be regulated with the greatest facility; and the action may be maintained without inconvenience for almost any period. On this account, as well as for other reasons, fumigation is, in my opinion, less liable to be followed by the recurrence of secondary symptoms than any other mode of treatment whatever; and of all the methods of mercurial fumigation, that by calomel is the safest and most convenient, if not the most efficacious. The imbibition of the medicine through the skin prevents its injurious action upon internal parts; while the small quantity used, although quite sufficient to produce any amount of action that may be required, insures the patient against any sudden or violent effects.

In this mode of using mercury, the whole of the skin may act as the absorbing surface; and, when requisite, the effect may be still further increased by absorption from the mucous membrane of the nose, mouth, and bronchial tubes.

In secondary syphilitic affections, the surface of the body and the mucous membranes are peculiarly liable to be affected; and the process of fumigation has here this great advantage, that the remedy is applied directly to the diseased parts, and acts immediately upon them. When administered internally, it has, on the contrary, first to be absorbed into the blood, and carried the round of the circulation, perhaps more than once, before it comes into contact with the affected structures. Many old and intractable syphilitic ulcerations yield with surprising rapidity to local calomel fumigation; and there is no reason

why the same principle should not be taken advantage of in treating the more general forms of the disease.

Calomel alone, without the vapour of water, may be used, especially where the local action of the medicine alone is required. But, from a series of comparative trials which were made at the Lock Hospital in the early part of the year 1856, it became evident that, for the purposes of fumigation, it was advisable that a certain amount of the vapour of water should be present.

In the *BRITISH MEDICAL JOURNAL* for July 24th and August 14th, 1858, are given tables containing the particulars of 276 cases treated by calomel fumigation, and the time during which the patients were respectively under treatment. These tables might easily be continued up to the present time; but to do so would only be to repeat, without any essential variation, the facts which have already been published.

The conclusions, however, which were arrived at in the year 1858 may now be emphatically repeated, after nearly six years additional experience. "The syphilitic poison, in a very great majority of cases, produces its principal effect upon the skin. Through this organ nature attempts to eliminate the poison; and much importance is attached to a free secretion from the skin, as assisting the action which nature has already commenced. It appears, from an extensive trial, that not only is the poison eliminated from the system most effectually in this way, but that the effects of mercury upon the patients' constitutions are of a much milder character than under other modes of administering the remedy. This difference is attributable: 1. To the small quantity of mercury which is required, when used in this way, in order to produce the requisite effect. 2. To the fact that the imbibition of the medicine through the skin leaves the digestive organs unirritated and the digestion unimpaired. 3. To the circumstance that there is something in the free secretion from the skin, which the combination of steam and calomel produces, that moderates and controls the mercurial action. Out of all the cases which have been treated by calomel fumigation in the Lock Hospital, only one case of troublesome salivation has occurred, and in this case the patient had been taking pills internally before his admission into the hospital." (P. 679.)

FEMALE NURSES. "I have referred, in general terms, to the very judicious and skilful hospital treatment of the soldiers, and their extraordinarily careful and attentive nursing. In these respects, in all the regular and established army hospitals, there is but little room for improvement. The nurses, both male and female, seem thoroughly to understand their business; and there is, generally, no lack of jellies, cocoa, arrowroot, lemon-juice, dried fruits, and other delicacies. Notwithstanding the objections I have seen raised against female nurses in our army hospitals, it is only necessary to see how, like angels of mercy, they are regarded by the poor sick soldier; and how their soft, kind, and gentle ministrations carry comfort to his heart and consolation to his spirit,—to be satisfied that their services cannot well be dispensed with." (*Corresp. Amer. Med. Times.*)

ROYAL COLLEGE OF PHYSICIANS. The Gulstonian Lectures this year will be delivered by Dr. Pavy; the Croonian Lectures by Dr. R. Lee; and the Lumleian Lectures by Dr. C. J. B. Williams.