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## MISCELLANEOUS ARTICLES, ORIGINAL AND SELECTED.

SECTION I.---ORIGINAL PAPERS.

I. Miscellaneous Observations on Purgative Medicines, and on Costiveness. Communicated for this Journal by JOHN WARE, M.D.

ALTHOUGH there is perhaps no one point of practice, on which physicians of the present day are more generally agreed, than with regard to the great importance and utility of purgative medicines, yet it is probable that they do not in actual practice always recognize the extent to which they may be carried with advantage. There are few who do not, when they begin a course of treatment, secure a free evacuation of the alimentary canal; and who do not, as they proceed, take care to keep up an open state of bowels,---that is, to procure every day, or at farthest every other day, one or two discharges by the exhibition of some aperient. This routine is undoubtedly sufficient in the large majority of the cases to which we are called ; cases, in which the powers of the system are, with a little assistance from art, adequate to the restoration of health; cases, in which there is no reason for suspecting the presence of any unnatural quantity of fæ-But where an accumulation of fæces actually exists. ces. it is by no means an easy matter to get the bowels thoroughly evacuated, nor can it be generally effected in a very short And yet this evacuation is always important, and period. often essentially necessary to the success of our treatment; for, even where we do not conceive the disorder to have originated from the state of the bowels, still this state has an influence upon its course,---and is as important to be taken VOL. XVI. 11

into consideration in the treatment, as if it were an original element of the disease.

The objects which may be effected by purgatives are two; 1, the evacuation of the contents of the intestines; 2, the production and evacuation of fluids by secretion from the mucous surface of the intestines, and from the glands opening upon that surface. These objects are in their nature perfectly distinct; and under different circumstances of disease, we have recourse to purging with each of these distinct purposes. But still, in actual practice, we cannot in any way effect one, independently of the other. Thus, when there is an accumulation of fæces, the most ready method of evacuating them, would be simply to excite the peristaltic motion of the intestines. But we have no article which will do this, without at the same time exciting the secretions, so that the cathartic effect will be partly owing to the action of the secreted fluids, which, in passing over and through the hardened masses which fill the large intestines, soften, dissolve and wash them away. On the other hand, when the principal object is to produce active secretion, the state of the bowels is seldom such, but that fæcal matter is mixed in and brought away with the secreted fluids.

It is principally the first object of purging, viz. the removal of accumulated fæces, to which my remarks are at present directed. And they are not made so much with the expectation of saying any thing new upon this subject, as with the desire of illustrating the importance of a perseverance in the attention paid to the bowels, particularly in chronic diseases, and in cases where there has been continued costiveness, or where we have reason to think that there is an accumulation of fæcal matter in the bowels; and this, whether we believe the accumulation to have been the cause of the disease or not.

I can in no way so well illustrate the necessity which exists in such cases, for long continued, as well as active purging, as by the relation of a remarkable instance of the kind which occurred under my notice.

Mrs S. W. was delivered Nov. 23, 1824; no peculiar

symptoms attended her labour; but immediately after getting into bed, she was seized with a severe fit of shivering. In the evening she had another attack, accompanied by a spasmodic twitching of the muscles of the arms and shoulders; to which, however, she had been frequently subject after confinement, having borne eight or nine children before the present, and having always had what is called a bad getting Her bowels were freely evacuated by castor oil, and up. no particularly untoward symptoms occurred for several days. Still her appetite was poor, she was weak, and suffered occasionally from nausea. Her pulse became quicker, and the lochial discharge was less than usual. She was able to sit up every day, and once or twice appeared to feel a desire for food. Eleven days after her confinement, Dec. 4, she took an emetic, which, although it operated well, gave no relief to the nausea. The same evening, she was seized with pain in the left side, in the region usually affected in pleurisy. This pain, although not very severe at first, continued increasing until the next evening, when it became excruciating. Every inspiration was accompanied by a severe groan, and there was apparently a constant belching from the stomach. The violence of this symptom was very remarkable, but its exact nature it was difficult to discover. It began with a sensation of oppression at the stomach, like that produced by wind : an effort to throw up wind succeeded,-and it was apparently brought up, in large quantities, by a succession of efforts, for an hour together. Whether air was really evacuated at this time, or whether the sensation at the stomach produced an effort by which air was swallowed and then thrown up again, I do not pretend to determine. I was inclined to the latter opinion, because there was no such distension of the abdomen, as would necessarily have been produced by the quantity of flatus which was apparently evacuated. These fits of belching, lasting from a few minutes to nearly an hour, continued to occur for several days.

For this violent pain in the side, she was bled, blistered and purged. There was no buff upon the blood drawn.

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The New England Journal of Medicine. Downloaded from nejm.org at NYU WASHINGTON SQUARE CAMPUS on June 22, 2016. For personal use only. No other uses without permission. From the NEJM Archive. Copyright © 2010 Massachusetts Medical Society. The next day the pain had removed higher up in the side, underneath the arm-pit; it then successively seized upon the shoulder, the two thighs, and the two legs. No sooner was it relieved in one part, than it made its appearance in another. It was less completely removed in the lower limbs than elsewhere, and it was many months before their use was regained. These attacks of pain continued for about a fortnight, and in the meantime the digestive organs had become extremely deranged. The appetite was totally gone; the stomach felt as if full of mucus, and as if vomiting were about to take place; the belching still continued; and she was occasionally seized with the spasmodic twitchings of the muscles before mentioned. The pulse were rapid and small, varying from 120 to 140. The tongue was not very much furred; the countenance tolerable; sleep indifferent.

This state continued for at least four weeks, during which period she literally took no nourishment, except a little tea, or some other unsubstantial drink. She became very much emaciated; was once delirious; and at one time death seemed to be actually approaching. At the beginning of that peculiar state of stomach which has been described, small doses of ipecacuanha, five grains, were administered once, twice or three times every day, according to circumstances. They produced a slight emetic operation at each dose : a good deal of tough mucus was discharged, and they were productive of decided benefit. They were recommended by Dr Jackson, with whose counsel I was favoured in the management of this case. With the exception of local applications, such as blisters and fomentations, all other treatment was confined to regular purging. Cathartics were administered as perseveringly as her strength would admit; they were followed uniformly by copious discharges, containing fæces in a softened state, and also loaded with hardened scybala, or lumps of fæcal matter, in astonishing num-At the end of four weeks from the severe attack, and hers. nearly six from her confinement, she began slowly to improve, and for several days drank freely of porter and water, which was the first nourishment taken. She gained strength upon this diet, but still continued to take aperient medicines, and to bring away fæcal discharges. In fact, she passed consistent figured stools, of a natural appearance, before taking any considerable quantity of solid food. Convalescence went on slowly, but surely. Her feet and ankles were swollen for several months, and it was long before her legs regained their ordinary strength.

The principal circumstances worthy of notice in this case, were the immense accumulation of fæcal matter in the intestines, the length of time during which it was necessary to persevere in the use of purgatives in order to remove it, and the power manifested by the system, of enduring these medicines, although at the same time no nourishment was taken into it. Certainly for more than a month, a cathartic was given as often as every other day, frequently for several days in succession, whilst nothing but the thinnest liquids were taken into the stomach.

Whether the accumulation of fæces, in this instance, was the only cause of the train of symptoms which occurred, is doubtful. But it is certainly conceivable that the affection upon which these symptoms depended, was at least fostered and kept in activity by the state of the bowels, after it had once been produced. The accumulation of fæces we know to exist, in many cases, to a very great extent, in persons who yet remain quite healthy, for a great length of time; and who yet, if they become sick from any other cause, seem unquestionably to suffer from the state of their bowels, and require to have them evacuated before they can recover. From such cases we might infer, that even where costiveness does not produce disease, it is capable of preventing diseases otherwise produced, from being cured by the efforts of nature, or by other remedies.

The mucous surfaces have the power of accommodating themselves to the presence of foreign bodies, so that they cease to irritate them, whilst in their natural state. It is from this circumstance, that the bowels get accustomed to the presence of indurated fæcal matter in the large intestines, so that it no

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longer acts as a stimulus to produce its own evacuation. Bv degrees the juices of the excrementitious matter become absorbed; it hardens, and contracts very much in size; it gets deposited out of the track of the discharges, in the cells of the colon, in the form of lumps, surrounded by the intestinal mucus, which still further contributes to protect the bowel from its stimulating quality, and to insure its reten-There are many circumstances which illustrate this tion. power in various parts to remain passive and quiet under the presence of substances whose natural tendency is to produce an irritation adequate to their own expulsion, like a foreign Thus a ball, or a piece of glass, will remain imbedbody. ded for many years in the flesh-food will remain for several days in the stomach, and then be vomited unchanged-an extrauterine foctus will remain for a long time in the cavity of the abdomen without exciting irritation, until some accidental cause excites inflammation around it. The same takes place with regard to tubercles in the lungs, tuberculated diseases generally, and sometimes with regard to wens. They will remain for a long time in a quiescent state, the parts around them having become habituated to their presence, till at last some accidental cause brings on irritation and inflammation around them, and a process is set up to get rid of them.

This state of the bowels may take place gradually, whilst the subject of it is totally unconscious that every thing is not going on in a manner perfectly satisfactory. He may have every day a discharge, and yet an accumulation of fæccs may be actually taking place, or may actually exist to an injurious extent. Although an evacuation may take place every day, yet the fæcal product of each day may not be wholly carried off. A part of it may pass on through the large intestines, go out of the body and leave the remainder behind, to increase the accumulation which already, perhaps, exists. Many patients and many physicians are entirely deceived by this circumstance; and they conclude that the bowels are in a natural state, when in fact they are loaded with fæces, and are becoming more so every day. To most patients a discharge is a discharge, be it great or small, hard

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or soft, thick or thin; and if they have one every day, they are satisfied, and tell their physician that they have no tendency to costiveness, and have never suffered from it. It is difficult, particularly in some instances, even where a physician is in attendance, to ascertain very minutely the character and quantity of the stools. It is still more difficult to determine with any certainty, what has been the state of the bowels before attendance commenced.

The same thing may happen, even when medicine has been taken to keep up regular discharges. The medicine produces a watery secretion in the small intestines, which may pass entirely through the body of fæces accumulated in the large intestines, dissolving and carrying away some small portions of them, but leaving the main part behind.

A costive state of the bowels, and a consequent accumulation of faces, is not necessarily inconsistent with a tolerable, or even a very good state of health. And some persons, probably, pass through life, without being sensible of any very considerable inconvenience from this source. This, however, does not often happen; and although an accumulation may not, perhaps, directly produce sickness in very many cases, yet whenever any other cause produces it, this state of the bowels is found a great impediment to recovery. For, although in the healthy state of the intestine, the presence of this foreign matter, for so it must be considered, may not be noticed, yet when the irritability of the intestine is increased or modified by disease, it becomes a source of serious irritation. It is easy to conceive how an accumulation, which is borne perfectly well, when the mucous surface is in its natural state, may, when it is in an unnatural state, produce great difficulty, increase and perpetuate disease, and require to be removed before health can be restored. This will be more particularly the case, where the digestive or-, gans are the seat of derangement; but it may happen in almost any case, for there are few cases, in which the stomach and bowels remain through any disease in a natural state. A patient with dyspepsia, or with any chronic disease where the digestive organs are affected, feels the worse for any

omission of a daily discharge, although, when in health, he may perhaps have gone long without suffering. A person who has eaten to excess, if his bowels are free from accumulated fæces, may be relieved by a simple diarrhœa. If he has been very costive, this diarrhœa may pass into dysentery. For as soon as the natural state of the bowels has been changed, the fæces become sources of irritation; this irritation causes the dysentery, and consequently the fæces must be discharged before a cure can be effected. This is, probably, the state of things in those dysenteries accompanied with scybala. A person who has tubercles in the lungs, giving him commonly little or no trouble, may take a common cold which excites inflammation around them; and they may become a source of irritation, in the state of the lungs produced by the cold, although they were in a quiescent state before.

In very costive persons, whatever disturbs the bowels, either by interfering with their natural habits of action, or by producing a great mechanical impression upon them, is very likely to call out their latent irritability, and to bring on a state of them, in which the present fæces become sources of irritation, and require to be completely evacuated. This effect, in a mechanical way, is, I think, produced by the change which takes place in the situation of parts within the abdomen at parturition. We find patients, for instance, who have been very costive during pregnancy, and remain so up to the day of delivery, who become sick soon afterwards, and require a thorough course of evacuant medicine before they are restored to health. This often happens in a slight degree. 'The case just related is an example of the very severe effects which may be presumed to have arisen from this source ; and cases are not uncommon, in which symptoms of a very serious character take place.

It is probably from the disturbance of this quiescent state of the fæcal matter in the bowels, that the operative medicines administered, even in persons who, from their habit of body, certainly require an evacuating treatment, often produce for several days great irritation, not only of the canal itself, but of the whole system. The patient in these cases,

is very ready to be persuaded, from this circumstance, that the treatment is not adapted to the complaint, and that he is injured rather than benefited by it. Indeed we are ourselves too easily diverted from the course which our judgment has originally dictated, by the same cause; although, if we persevere, it is seldom that we are finally disappointed in our expectations of advantage. It is certainly not at all uncommon, in chronic cases, accompanied or caused by costiveness, that an aggravation of the symptoms follows the first administration of cathartics; which, as has been observed, is probably to be attributed to the breaking up of the old habitual state of the bowels, and the production of a new state, in which the fæcal matter becomes a source of irritation, although it was not so before. It is remarked by Dr Smith, in his Essay on Typhous Fever, that a smart operative dose of medicine will seem suddenly to make a person very sick, who had been apparently but slightly indisposed before. I think every physician must have met with cases of this kind, in which the exhibition of medicine seems to develop, to bring out, as it were, the disease which had been perhaps hanging about the system for many days before, without making the patient very sick. This appears particularly to happen, with regard to fevers, as remarked by Dr Smith, although the observations made above, afford an explanation somewhat different from that which he seems inclined to adopt.

The more infirm and slender the health, of a person is, then, the more necessary is it, that he should have a daily fæcal discharge. The reason being, that in his bowels the fæcal matter acts as an irritating or oppressing agent, whilst in a strong healthy man it is not felt. In the latter, the bowels can accommodate themselves to the presence of an unnatural quantity of fæces, just as the stomach can to the presence of an unnatural quantity of food. When a person becomes dyspeptic, one of the first symptoms he is led to observe, is, that he feels worse when he fails in the regular alvine evacuation; and hence he is often led to believe, that costiveness is originally the cause of his disease, when it 12

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may be in fact a consequence; or the existence of the complaint may be the reason why he suffers from any obstruction in his bowels, and why he may even require to have them kept more thoroughly cleared, than is natural in the most healthy state, since even the natural quantity may not, under certain circumstances, be retained without irritation.

The reason that purgatives are of so much service in disease, separately from their power of producing secretion, even where there exists no extraordinary accumulation, is something of the same kind. In fever, for instance, the vital state of all the surfaces is altered, particularly that of the alimentary canal. Hence that fæcal matter, which was no cause of offence in the natural state of this membrane, becomes a cause of offence in this altered state; just as light does to the eye, sound to the ear, urine to the bladder and urethra, and the placenta to the uterus, when the surfaces of those organs have become changed from their natural state. Consequently the removal of it may either enable the system to cut short the disease at once, or at least to contend with it at greater advantage. Fevers, in which the patients are costive, generally do well, and are benefited by medicine; but where the irritability of the bowels is so great, as to cause an effort to clear them by a spontaneous diarrhœa from the first, the case is less promising, because it may be regarded as indicating either a severer degree of the disease, or a system unfavourably constituted for enduring it.

Those physicians who have *always* been accustomed to pursue the commonly approved method of treating fevers, arc very unfavourably impressed with regard to the course which has been sometimes advocated, that of treating them almost wholly by stimulants, and permitting the bowels to remain very costive. We are apt to think such a practice must be very fatal in its results; and from the benefit which seems to attend the opposite system, one can hardly be persuaded to believe, that such a course can be safe. Still, however, it is probable that we over-rate its fatal tendency. The practice of administering opium and highly stimulating sub-

stances, and of keeping the system constantly under their influence, seems to have the effect to lessen its irritability, and thus prevent it from suffering from the presence of fæcal matter in the bowels. In this way, a patient may go through with a fever as safely, or possibly even more so, than if it were left to nature. This is a matter, however, which it is difficult to determine, and with regard to which there will be great difference of opinion.

Colic, we know, appears sometimes to come on spontaneously, or from the influence of cold; no indigestible substance having been taken into the stomach. In such cases, it is probable that the ordinary fæcal matter present in the bowels, acts upon them in their disordered state as a source of irritation, as a foreign substance, and excites the violent pain. At any rate, although a discharge of fæces is almost without exception followed by relief, yet bleeding or opium will also, in many instances, appear to cure the disease without any evacuation from the bowels; these remedies appear to operate by quelling the too great susceptibility of the gut to impression; and as a consequence the fæcal matter no longer operates as a foreign substance, but is quietly retained. I recollect a case of fever, in which all cathartics, even those of the mildest kind, produced such violent pain and distress in the bowels from their operation, that it seemed most safe to give up their use, suffer the bowels to remain costive, and trust the event to nature. In dysentery, some practitioners of great experience and sagacity, defend the practice of keeping the action of the canal entirely down by opium in large doses, and to use no other medicine, except an occasional mild laxative. All these circumstances tend to show. how much the effects produced by fæcal matter in the intestines depend upon the state of the intestines, whether existing naturally, or as induced by medicine; and that, because there is an accumulation of fæces, it is not, therefore, under all circumstances, necessary to proceed at once to their evacuation.

The tendency of all these facts is, on the one hand, to illustrate the necessity of caution, in undertaking the com-

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The New England Journal of Medicine. Downloaded from nejm.org at NYU WASHINGTON SQUARE CAMPUS on June 22, 2016. For personal use only. No other uses without permission. From the NEJM Archive. Copyright © 2010 Massachusetts Medical Society. plete evacuation of the bowels; and, on the other hand, of perseverance in the attempt, when it has once been begun from a thorough conviction of its propriety. We are apt to suppose it much sooner, and more easily done, than is really found to be the case. We are sometimes deceived, when we are purging a patient, whom we suppose to have accumulated fæces in his bowels, in supposing that, because we bring away large discharges, that we are therefore removing the accumulation very fast. When the bowels are in the state that I have supposed them to be, in a costive person, it must be very difficult to excite them to throw off the indurated This could only be done by producing a strong musfæces. cular action in those parts of the intestines where the accumulation is lodged, viz. in the large intestines. But, the very accumulation prevents medicine taken into the stomach from coming in contact with those parts, and producing action Its operation, therefore, is expended principally upon there. the small intestines, where a copious liquid secretion takes place, which passes down through the large intestines, loosens and dissolves portions of the fæces collected there, and discharges them in the form of lumps, floating in a fluid, but does not bring them away in mass. This mode of evacuating the intestinal canal, when it has been much constipated, is a very gradual business, although, to appearance, great quantities are discharged. Every man, who is in the habit of inspecting the evacuations, must have often remarked that, after he has been purging a patient through a fit of sickness, producing every day numerous and copious fæcal discharges, a number of good-looking, substantial, figured stools, will take place as soon as convalescence is established, without medicine, and before the patient has taken any noticeable quantity of food.

We seem to stand in need of some medicines, or some agents, which shall have the power of exciting muscular action in the large intestines, without direct application to their mucous surface. These intestines are intended to act as a depositary of the fæces for a certain length of time, and by a defect in their action they retain them, and they thus become lodged in the cells of the colon. To dislodge them

from these cells requires the action of the circular fibres of the gut to throw them into the centre, where they may be taken up by the common peristaltic motion, and carried downward. Now, this downward motion may be kept up, whilst the other does not exist, since they depend upon separate sets of muscular fibres; and in this way the secretions produced above may be carried through, whilst very small quantities of fæces are evacuated.

What we need then, is, some medicine or agent which shall obviate the difficulty, by exciting this double action in the large intestines. Cold will sometimes do it. Wet feet. or exposure to a cold and damp atmosphere, as in a cellar or in a room without a fire in some kinds of weather, produces in many persons pains in the bowels and fæcal evacuations. Dashing cold water upon the bowels and thighs has been advised for this purpose. Emetics are strongly recommended by Dr Hosack for obstinate costiveness, and, probably, every physician has seen copious fæcal evacuations follow their use; and it is very likely that the mechanical disturbance of violent vomiting, as well as some sympathetic influence upon the large intestines, may dispose the fæces to be more readily evacuated. The relative value of the different common cathartics is well known to physicians; little, therefore, need be said of them. Of one article, however. which has lately been getting into use, and which I have very frequently administered, I would remark that it appears to possess more power of the kind so desirable, than perhaps any other cathartic. I mean the croton oil. Its most remarkable quality is, that of producing the discharge of fæces, which it does very abundantly, as in the following case, although its effects are not always so decided. A patient, who had suffered very much from headach, dizziness, &c. accompanied by costiveness, had been taking cathartic medicines, such as castor oil, pil. cochiæ, calomel and jalap, for several days, with tolerable operations, but without re-One drop of the croton oil was administered, in half an lief. ounce of syrup of Tolu balsam. It produced most violent gripings in the bowels, and brought away, within a few

hours, the most copious fæcal stools I ever saw, which were nearly solid. Her symptoms were immediately and entirely relieved.

When the sole object is the discharge of fæces without secretion, the frequent administration of small doses of the resinous cathartics has seemed to have a more satisfactory operation than the same, or any medicines, in larger quantities. When given in this way, they do not act so suddenly and so violently, as to be carried off in the copious secretions which they produce. They, probably, pass slowly through the large intestines, dissolved in the fluids they have caused to be poured out in their passage; they thus have time, in a manner, to soak into, to pervade the fæcal mass, and to impart to it a stimulating quality, which excites the bowels to action, and thus produces its evacuation.

Nothing can be more important to a physician, where he is purging a patient, particularly with a view to the evacuation of accumulated fæces, than for him to inspect all the evacuations. It is impossible that he should otherwise be able to judge how much impression he is actually making upon the bowcls; how far the effect of his medicine is confined to the proper object he has in view, and how much it expends itself in the production of secretion merely. The accounts given by patients themselves, or by their nurses, are worth little or nothing. They do not communicate the facts themselves, but only their own results, founded upon a very imperfect observation of the facts. One is sometimes perfectly amazed at the difference between what he sees, and what he expected to have seen, from the description given of the quantity, consistence and colour of the discharges from the bowels.

A very difficult and delicate matter to manage, is that habitual costiveness, which seems to require a remedy, not because it has caused, or is connected with, any settled or important disease, which requires purging to remove it, but because the want of sufficient evacuation keeps the whole system in a disturbed and irritable state. It is true, so many persons pass through life in this confined state of bow-

els, and yet enjoy very tolerable health, that it might seem to admit of some doubt whether it be invariably best to attempt the amendment of the habit by any very active measures. Yet there are, on the other hand, so many who do suffer from it; so many hypochondriacs, or habitual invalids, whose ailments have either been originally produced, or are at least constantly aggravated, by this cause, that it becomes a matter of some importance to devise means of remedy.

The causes of costiveness are no doubt different in different individuals, but the actual and immediate state of the bowels themselves is probably in most cases nearly alike. The difficulty appears to consist in the inirritable state of the mucous membrane, in contact with which the fæces lie : or of the muscular coat, which corresponds to it on its external surface; or it may arise from the want of the natural stimulating qualities in the fæcal matter, caused by a deficiency of bile, or of some of the other secretions of the canal. The objects to be held in view, then, in remedying costiveness. will be either one or both of the following, according to circumstances. First, to restore to the mucous membrane, and the muscular coat of the intestines, their natural sensibility to the stimulus of fæcal matter; or, second, to render the contents of the canal more stimulating in themselves, and thus to enable them to excite in the bowels a degree of action sufficient for their expulsion.

There is no certain way of effecting the first object, except by such general remedics as affect the whole system, and amend the state of all the functions,—such as exercise, proper diet, &c. It is possible that frictions over the abdomen, continued for a long time, at the same time kneading the bowels with as much force as they can bear, might have some effect. Cold water applied to the abdomen has also been recommended. The second object may be effected by a diet consisting of substances of an aperient nature, where the stomach will bear them; or by the exhibition of purgative medicines. From the favourable change which has been sometimes observed to take place in the bowels of costive persons

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after long fits of sickness, and which a proper degree of care might make permanent, the following plan seems very likely, if thoroughly persisted in, to break up a sluggish state of the bowels, and restore them to a natural activity.

Where there has been a confirmed costiveness, it would seem best to begin with thoroughly evacuating the bowels by medicine, in order to put them into a completely new state, by breaking up all the old habits of action, all the associations and sympathies of the system, which have been predicated, if we may so speak, upon this unnatural but habitual state of the organs of digestion. The favourable change sometimes brought about by a fit of sickness has been alluded to. We may perhaps, to a certain extent, imitate the process, by a course of medicines which shall carry away every particle of the accumulated fæces, and thus put the bowels into a new state-fit them, as it were, to begin anew. This complete evacuation, as has been already remarked, is not a perfectly easy matter. It is very difficult to feel sure that it is effect-It cannot be done by one or two smart cathartics, as ed. some persons talk of evacuating the bowels, but rather by a succession of more moderate ones, which will bring away fæces, and not expend themselves in producing secretion.

This being done, let the patient in the next place accustom himself, so far as his stomach will bear it, to such articles of dict as furnish a large proportion of excrementitious matter, and that also which is of a stimulating quality to the Such are vegetables, fruit, rye bread and pudding. bowels. With every meal, let a single pill of 2 or 3 grains be taken, containing several of the principal powerful cathartics in very minute quantities,---so mixed, that each pill shall contain a portion of each of them. The size of the pills to be increased if no effect be produced, or diminished if too much. The object of this method of giving medicine with the food, is to impart to the mass of the fæces, as they are formed, a stimulating power adequate to their own evacuation, instead of administering the same articles separately as purges, which often fails of producing the precise effect wanted. At the same time, let the patient, several times a-day, whenever, in fact, there is any

thing like an inclination for a stool, solicit nature to a discharge, and make all such efforts, by bearing down and straining, as are naturally made on such occasions. Let him also, at one or more particular periods, make a voluntary effort on the chair to procure a motion, if he have no inclination; for a continued voluntary effort, even a slight onc, particularly when combined with the associated circumstances of time, place and opportunity, has no inconsiderable effect in bringing on a regular action in the bowels.

At first it is sufficient to make sure of adequate evacuation at any time; but when sure of this, it becomes important to have it take place at particular periods, because success must finally depend upon the formation of a regular habit. I am inclined to think, that a person disposed to be costive can more easily form and preserve the habit of having two discharges in the twenty-four hours than one, although a single one is generally esteemed sufficient. This I have certainly found to be the case in one person, who, so long as he obeyed every indication of motion in his bowels, had at least two natural discharges every day; but, as soon as he resisted the disposition, in order to confine himself to a single discharge, became costive again, and his habit was broken up. The reason of which may probably be, that when the fæcal matter remains long in the bowels, its liquid parts are absorbed, and it consequently becomes dryer, harder, and less stimulating. This, indeed, may be one great difficulty with costive people, that there is a peculiar disposition in their bowels to absorb the liquid parts of the fæces unnaturally soon, so that the mass becomes very speedily dry and hard. It should be a rule, then, with the patient, having fixed upon certain convenient hours for this occasion, morning and evening for instance, to make invariably a regular effort at those hours, whether he have a disposition or not, and to continue it for some time. At the same time, however, observing never to resist any disposition to evacuate at other parts of the day, till his habit is securely fixed.

The use of the pills above mentioned, may be gradually relinquished as the habit is formed.

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There is one sort of obstruction in the bowels, which occurs in the course of diseases, which is always a perplexing and troublesome, and often a dangerous symptom. It seems rather to depend upon an unnatural state of action in some part of the alimentary canal, than upon any accumulation of fæcal or secreted matter. And a restoration of the natural action, and of discharges from them, are measures necessary to relief. In this state of obstruction, there seems to be some insurmountable opposition to the operation of medicine. Large doses of the most powerful cathartics are given without any discharge at all, or else with very trifling discharges. Yet often, as soon as death takes place, the difficulty seems to be removed, and the patient purges violently.

A case occurred to me lately which appeared to illustrate at least one of the states of the bowels, under which these symptoms present themselves. The patient was a little girl of two years old, who had not been well for some days, and on a Friday, was suffered to eat some lobster. It caused distress and vomiting; on Saturday the parents gave an emetic, and on Sunday she seemed to be relieved. On Monday, however, she became very sick again, and I was then first called to her. Her countenance expressed great distress, her respiration was laborious, her skin hot, and pulse very rapid. The nature of her distress, and the kind of respiration, as well as a fullness, hardness and tenderness of the abdomen, pointed to the bowels as the seat of difficulty. For two days persevering attempts were made, by the most efficient cathartics, assisted by injections, to procure evacuations from the bowels, but without success; small mucous discharges only were obtained, and these with great pain. Blisters and fomentations gave only temporary relief. In a little more than forty-eight hours, she died.

On dissection, the bowels were not found, properly speaking, inflamed,—but in many parts bore marks of very great irritation. The small intestines, and the upper part of the larger, were perfectly free and open, and full of such secretions as usually form the bulk of the discharges from the bowels when physic has been taken. But the lower part of

the rectum, from the anus upwards, to the extent of six or eight inches, was so contracted as to have lost entirely the appearance of a canal, and looked like an impervious cord. In this case there was probably some permanent spasmodic affection of the rectum ; and could this have been removed, the patient might have been saved. It is possible, could the nature of the obstruction have been distinguished, that a milder practice would have been more successful. Opiates might have relaxed the stricture which resisted cathartics. And it might perhaps have been worth-while, as glysters were with very great difficulty thrown up, and never retained, to have introduced a bougie of sufficient size to dilate the intestine, and to have kept it there till the tendency to spasm in the muscular fibres had been overcome by thus keeping them extended.

Boston, Dec., 1826.

## II. Case of Hæmatemesis. Communicated for this Journal by Peleg Clarke, M.D.

PROFUSE hemorrhages are at all times alarming, and often perplexing, especially when the scat and cause of them are not obvious. Hæmatemesis, I believe, is a disease of infrequent occurrence; at least I have found it so,----and its pathology seems to be involved in a good deal of obscurity : the causes usually assigned for it by writers, are not very satisfactory, as the effect so very rarely follows their application. The ingenious Dr Darwin\* describes what he calls a hemorrhagy of the liver, and I believe this organ is oftener implicated in this disease, than is generally imagined. But I shall not attempt to explain the phenomena of this disease, nor recommend any particular mode of treating it; my only object is to call the attention of pathologists to its investigation, and I should think the subject sufficiently interesting for a prize dissertation.

I am aware that the treatment in the following case, was

\* Zoonomia, 3d American Edit. vol. ii. p. 56.

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