moral and physical evil must be investigated and, if possible, removed. National health will be found to be connected with national morality and prosperity. We in our time cannot expect to solve all the problems which will be presented to us, but if a few are successfully handled, we shall be thankful for the instalment. Every man in his own person may assist in removing those evils which afflict society, and even his very diseases may be made to fructify for the common good. The great instruments of Preventive Medicine will be science, legislative wisdom, and charity—that blessed and fragrant flower of the following of Christ. War, that assimilates man to the brutes, will become more odious as its collateral effects will be better understood. In the war of liberation of Spain, we have the authority of Sir Gilbert Blane in stating that more of our soldiers died of fever than of all other causes, including the sword.

A time may come when the conqueror of disease will be more honoured than the victor in a hundred fights. The time may come when no man for his own ends, or for his profit, will be permitted to damage the health or the well-being of his neighbour or of his servant, nor the prisoner have to suffer through the ignorance or the indifference of his jailer a greater penalty than was awarded by the law, while the emigrant with his loved ones will be protected from disease as he expatriates himself from the land of his birth. The gifts to man from Heaven—pure air, pure water, bright light, and wholesome food, will be more freely shared in, and the moral and physical evils of overcrowding, and the consequent guilt, the shame, the pestilence, will disappear. The artisan will be taught the dangers of his particular calling, and so far as law and public opinion go, be protected from them; whether he labour in a hot room, amid the roar of machinery, or deep in the earth where he has to work in passages carved by himself of little more than two feet in height, inhaling the smoke of gunpowder and particles of silex till his working life comes to an untimely and miserable end.

That false morality which would ignore the existence of, and therefore would neglect, that unhappy class of the victims of society, will be denounced and exposed. Infant life, concerning the preservation of which civilised England may well take her lesson from Russia, will be protected by the State.

The power of science will be brought home to all men, as to everything that can influence health, food, drink, labour, residence, occupation; and, as it touches each of these considerations, will lead mankind to higher thoughts and purer lives.

The principles of the science of public health will be taught in our Universities, and from them downwards in our elementary schools; and the influence and the light of science be brought to bear upon all men.

Think of the millions of our fellow-men—brethren, subjects of the same crown, at home or on the burning plains of India, contending miserably with, or yielding to, the multiplied evils of degradation, and consequently untimely death, from whom the ignorance of their rulers as well as of themselves keeps the light of knowledge; and you will admit that it is a noble object for those who dwell in, and who govern, the homes of science—our ancient teaching Universities of these countries, to prepare and to send out over the world their disciplined and devoted soldiers of science and of ethics, with the highest academical, and therefore social, rank, to contend with and abate those moral and physical evils, the growth of ages, the offspring of ignorance, which so long have afflicted and retarded mankind.

REAL IRISH WHISKY IN THE NORTH OF IRELAND.

At the last meeting of the Chemico-Agricultural Society of Ulster, at Belfast, under the presidency of Dr. Knox, late Poor-law Inspector, the subject of whisky-adulteration was brought under consideration by Mr. Hodges, who exhibited a specimen of that liquid brought to him by two men who had been physically incapacitated by drinking a small portion of it in a public-house. He found, on analysis, that it contained a large amount of naphtha. He had also discovered that ingredients of even a more deleterious character were used in the process of adulteration—mixtures containing sulphate of copper, cayenne pepper, sulphuric acid, and a little spirits of wine. One specimen submitted to Dr. Hodges by a number of provision cutters and curers was composed of naphtha and a slight colouring of whisky. The men who had imbibed a small quantity of it were simultaneously affected with serious symptoms; and this, said Dr. Hodges, was a fair specimen of the drink sold in low-class public-houses. The trade in this noxious compound is carried on with impunity; no local authorities in Belfast or in the province of Ulster caring to exercise the powers with which the legislature has invested them for the suppression of the traffic.

CLINICAL LECTURES ON STRANGULATED HERNIA.

Delivered at St. Bartholomew's Hospital.

By SIR JAMES PAGET, BART., F.R.S.,
Consulting Surgeon to the Hospital.

LECTURE I.—*Concluded.*

2. Let me now go on to speak of the guidance to be derived from the remoter symptoms; and, first, from the inaction of the bowels. This inaction, or rather this hindrance of expulsion, is a nearly constant sign in strangulated hernia, but occurs in so many other cases that its sole presence is of little weight among motives for operating. Its absence is, rather, that which needs study.

One or more actions of the bowels, after other signs of strangulation have set in, are of no weight at all against the propriety of operating. They commonly occur, because usually after strangulation the part of the bowel below the constricted part empties itself. These actions of the bowels are not to be counted on either side of the question about reducibility or operation; and even a regular and frequent action is not an absolute prohibition, for the strangulation may involve only omentum, or only a part of the circumference of a portion of intestine. In these conditions, faeces may pass along the canal and be discharged.

I had to see a lady for what was considered an abscess in her groin. The swelling was just over the femoral ring, and contained fluid and air. I punctured it, and let out pus and air and liquid faeces, and presently I found a piece of hernial sac sloughed off and lying in the abscess. This, and the history of the case, proved that the hernia had, about a week previously, descended when the patient felt a sudden pain while driving. The hernia was so small that it was overlooked; its pain and the griping which it caused were thought due to colic, and were so treated. The bowels acted sufficiently, and gradually the little hernial sac and its enclosed piece of the intestinal wall died and sloughed off. Then came the signs of abscess over the femoral ring, and its outlet; and this was followed by complete healing and many years of health.

However, such cases as this are very rare; and you may hold by the general rule, that you should not operate when the bowels act frequently or regularly, unless all the other signs of strangulation, both local and remote, be well marked.

3. The state of the abdomen is as little or less decisive in cases in which you may be in doubt. Of course, if it be sensitive and tender on pressure, either everywhere or in parts near the hernia, still more if it be distended and the muscles hard, this is an addition to the reasons for operating, and, I may add, to the reasons for fearing that you may be too late. It is more to be remembered that, when the abdomen is not tense or tender, when it may even feel nearly natural, yet you must operate if other signs of strangulation be present, and the hernia cannot be put back. For the changes of the abdomen are not common near the beginning of strangulation, and to wait for them would often be to wait till too late.

4. If I were asked which of the signs of strangulation I would most rely on as commanding the operation, I should certainly say the vomiting. Time after time, when the other signs were feebly, if at all, marked, the vomiting has been a sufficient guide to a timely operation. Many times, when all else was so quiet that it seemed rash to operate, the vomiting proved that it would have been much more rash to wait; and not one instance can I find in my notes in which neglect of the import of vomiting was not proved to be unwise. You had better hold the rule complete, that, when a patient has a hernia, recently become irreducible, and, with this, vomiting which cannot be clearly assigned to something independent of the hernia, you should operate. I am obliged to say recently become irreducible, because a patient with an old irreducible hernia may vomit, as any one else may, without any reason for suspecting strangulation; though in even these old cases you must be very watchful lest the vomiting be an early sign of strangulation. But the rule is safe that recent irreducibility and vomiting are enough to justify the operation, even though there be no other signs of strangulation present. Much more must the operation be deemed necessary when with these the other signs of strangulation, in even slight degrees, coincide.

And in thus judging of the vomiting, do not be too scrupulous as to its manner or its products. There are indeed some notable modes

of vomiting when intestine is strangulated. The patient vomits all he drinks, and that soon after taking it; and besides, he vomits fluids of his own secreting; and this vomiting is commonly (at least in the later stages), with gushes of large quantities of fluid, without much retching or violence, as if the stomach slowly became full of its own secretions and of those of the upper part of the intestine, and then, without any preceding nausea, suddenly emptied itself.

When you see these kinds of vomiting with a hernia lately become irreducible, or even with any swelling that may be a hernia, you may be sure that you must operate. But do not wait for any supposed characteristic mode of vomiting; do not be misguided by the absence of some peculiar fluid; nay, do not be misguided by the absence of all vomiting; for I have known it absent in the case of a very large hernia, which was certainly strangulated, and on which I operated successfully. And do not be misguided by an apparant diminution in the severity or in the frequency of vomiting, or by the vomiting having begun as soon as the hernia descended; for this it often does. Any kind of vomiting, if it be repeated, is enough to justify operation in a hernia recently become irreducible. Let me tell an illustrative case, which taught me the more, because it occurred in one whose life was of great value. He was aged 56, weakly, but laborious in literature. For three days after the descent of a hernia, which could not be reduced as it usually had been, there was not a single sign of strangulation, except this irreducibility, constipation, and occasional vomiting. He had no pain in or near the hernia; no feeling or aspect of illness; no hardness or tension of the sac; and the vomiting was only occasional, and there were often many hours of interval. But, after the three days, abdominal pain suddenly set in, with coldness and faintness, and wretchedness. Within two hours I operated; but it was too late; peritonitis had already begun, and the operation was useless or worse than useless. He died in twenty hours.

Cases like this are frequent. All seems pretty well; and then comes an inrush of indomitable symptoms. The hernia is not acutely inflamed; the patient is not greatly distressed; he flatters himself that he is better, and the similar flattery of his friends is yet stronger: all are averse from operation, and you can hardly persuade yourself to be resolute about it. But there should be no hesitation. I lost the chance of saving this man's life, by underestimating the importance of occasional vomiting as a signal for operation. If you lose such chances, you will be still more blameworthy; for you will have had more warning than ever I had.

And once more; do not be deceived by the cessation of vomiting in the extreme condition of strangulated hernia. This sometimes happens; but it is a token of evil rather than of good, if general improvement do not coincide with the cessation of vomiting. So, again, sickness may be stopped by narcotism; but here again there is no evidence of such general improvement as might justify waiting.

5. In the recent stages of strangulation, if it be not very acute, the respiration and pulse are little affected. The pulse is usually accelerated, and at first may be full and firm. I find that it was between 80 and 90 in a large majority of the ordinary cases which I have recorded; and the respirations are, generally, I think, in due proportion to the pulse. As the other signs of strangulation become more marked, these, I think, always coincide with them. The pulse usually becomes quicker, feebler, smaller, unless indeed after the warm bath, when its strength and size may be greatly increased; the respiration, I think, keeps pace with the pulse.

Thus, these signs corroborate the others in urging to an operation. I have not any notes or knowledge of cases in which the pulse or respiration was so inconsistent with other signs of strangulation as either to justify or to forbid the operation. But you may have this for a safe rule; that if, while you are watching a case, doubtful whether there be strangulation, the pulse and breathing should increase in frequency, you may believe that there is a commensurate increase in the reasons for operating.

Lastly, as to the patient's aspect and general condition, little that is definite can be said. You read of an anxious expression, and it is called characteristic, as many other fallacious things are. I should rather call it an expression of distress or of misery; but, however you may name it, be careful not to think that you must see it before judging that it is right to operate for a strangulated hernia. The worse a patient looks or feels; the more he looks shrunken, worn, and old-aged; the more miserable his sensations; the more is it unlikely that his strangulated hernia will be reduced without operation. But the reverse is not true. I have operated with full right, as proved by the result, on patients who neither looked nor felt miserable or anxious in any sense of the word. And I have seen a patient looking well and tranquil, in whom a femoral hernia, after seven days' strangulation, contained completely gangrenous intestine.

ON THOSE SECTIONS OF THE PUBLIC HEALTH BILLS, NOW BEFORE PARLIAMENT, WHICH AFFECT THE MEDICAL PROFESSION.*

By T. J. DYKE, Esq., Medical Officer of Health, Merthyr Tydfil.

THE inquiries of the Royal Sanitary Commission were embodied in a Bill presented to Parliament in the session of 1871, under the title of "The Public Health and Local Government Consolidation Bill, 1871." Those provisions in this Bill which recommended the amalgamation of the Poor-law Board and the Medical Department of the Privy Council were passed into law at the close of that session, under the title of "The Local Government Board Act, 1871." Subsequently, the staffs of the Poor-law Department and of the Medical Department have been rearranged, and now the latter department consists of a chief medical officer, a legal assistant, a superintending medical inspector, nine medical inspectors, and one assistant non-medical inspector. To these gentlemen, under the direction of the president, are confided the various matters connected with the public health of the twenty-three millions of people in England and Wales.

It has been my privilege to know many of these gentlemen, and no one can have a higher opinion of their aptitude for the onerous functions they have to fulfil than I have; but I would venture to suggest to you, that the time these eleven medical men can devote to the multiplicity of details which must necessarily come before them must be scant indeed; and that if it be really the intention of Parliament thoroughly to seek for the causes which conduce to disease, and steadfastly to put in action the laws which it will grant to remove those discovered causes, other men, possessed of equal aptitude, must be chosen to act in limits less extensive, and among masses of people far less numerous.

By the Local Government Board Act, 1871, the first great desire of the medical profession has been brought into effective working; and the power of overlooking the public health, and of administering to the relief of the poor, has been placed under the supreme control of one Minister of State, responsible to Parliament. The passing of this Act has been too recent to enable us fairly to estimate the advantages which should result from this "unity of direction"; but time will, I feel sure, prove the wisdom of the course adopted.

My purpose on this occasion is to examine very briefly the provisions contained in the "New Public Health Bill, 1872," and to regard it in two points of view; 1. As affecting the general principle that each of us, as men, contend for—the promotion of the public health; 2. As affecting our social and professional position.

As the Bill drafted under the direction of the Royal Sanitary Commission (better known as Sir Charles Adderley's Bill) is also before Parliament, I propose to include in my notice the provisions which it contains that relate to the two divisions of the subject I have named.

1. *The Provisions of these Bills as they touch the Well-being of the Public.*—It is proposed by both Bills that, at a period to be named, all England shall be divided into sanitary districts, to be named Urban, Rural, Port, and Riparian, according to the character of the districts included within the jurisdiction of the authority. Thus all the land and some of the waters and shores of England and Wales would be included within the powers to be given by these Bills. It is as if the map of England were covered with a number of small squares; each square a Poor-law union or rural district. Within these squares would be seen circles of different diameters, each a town district; or, when these circles border on a navigable river or the sea, they would be called riparian or port districts. In these districts one and the same code of sanitary laws will apply, one and the same local sanitary authority will act, and one supreme central authority will supervise and direct.

I find that much unfavourable comment has been made upon this nomenclature; but, remembering that "a rose by any name will smell as sweet"; knowing from my long acquaintance with sanitary matters and the working of sanitary laws, that the primary want has been a clearly defined boundary, within which the laws can be carried out by one authority, I cannot see any objection to call that one authority by different names, strictly applicable to the particular locality in which it operates. But I do strongly object to the continuance, as proposed in these Bills, of the "urban" sanitary authority, and of the creation of the port and riparian authorities, believing that we have in the registration districts of Poor-law unions a well-defined fully known "unit", and that such unit does not contain a larger number of inhabitants than that whose necessities may be supplied and whose health may be cared for by the elected representatives of the ratepayers.

* Read before the South Wales and Monmouthshire Branch, on April 4th.