THE SANITARY REGULATION OF FACTORIES:

BEING AN ADDRESS INAUGURATING THE ASSOCIATION OF CERTIFYING SURGEONS.

By JOHN T. ARLIDGE, M.D. Lond., President of the Association.

THE two principal or leading objects contemplated by our purpose as an Association are—1. The observation and collection of facts tending to promote the advance of sanitary science, and the relief and prevention of disease incident to the various processes of manufacture; and 2. The consolidation and improvement of our position, in its relation to the Government and the public, and the promotion of the interests of the profession generally in all that relates to State Medicine.

With reference to the first purpose, the second and third paragraphs from the excellent circular letter of Mr. Inspector Baker, which I will read to you, supply the best general indications for accomplishing it, whether by individual or united action.

"You will render a great service to the cause of factory legislation, especially in relation to its bearings upon the sanitary state of those engaged in manufacture, by collecting all information procurable, respecting the physical development, the frequency of deformity, the prevalence of disease, and particularly of special disorders, the distinctive effects of the principal kinds of labour, the average duration of life, the rate of mortality, and the prevailing causes of death among the several classes of workpeople coming under your observation.

"Similar advantage will accrue from facts gathered concerning the circumstances and conditions (so far as they relate to the sanitary state of those employed) of labour in any manufacturing process coming under your cognisance; and likewise from facts regarding the moral condition, the prevalence of intoxication, and the state of education among the manufacturing classes in your district."

The value of such inquiries as are here briefly sketched cannot be exaggerated. They touch on the very life-springs of a nation; yet they have never yet been systematically carried out. Various Parliamentary committees, and especially the Children's Employment Commissioners, have unfolded to an almost incredulous nation the miserable moral and physical degradation of a large proportion of our manufacturing, and, I may add, agricultural classes; the consequence of uncontrolled labour, and of ignorance of, and inattention to, the most rudimentary laws of sanitary science.

But, though much has been brought to light by the inquiries of such commissions, doubtless much remains still unrevealed; and, above all, an immense field of medical research, having for its practical object the prevention and diminution of disease and the general improved physical well being of the manufacturing class, remains to be worked. Surely this field of labour pre-eminently demands our services—the services of those who are daily brought face to face with factory labour and factory operatives, and who possess the best means of estimating the results of such labour and of knowing the condition of the labourers.

But how little has hitherto been effected by medical men in the way of research into the effects of various kinds of labour upon the physical and moral condition of those engaged in them! How few are the books or essays treating of the diseases especially engendered by certain manufacturing processes, and of the state of physical development among factory operatives! How slight and doubtful is our information relative to the average duration of life, and the comparative rate of mortality, of the different classes of our manufacturing population!

Yet no one will deny that accurate knowledge on all such matters is of paramount importance for any community. It is knowledge not only of interest and advantage to the medical profession, but equally so, also, to the legislature and the nation at large; and to whom will the legislature and the people of this country look for such knowledge other than ourselves?

Time was when every man did that which seemed right in his own eyes in all that relates to the conditions and circumstances of labour. No law but that of gain; no limit to labour but that of physical endurance pushed to the extremest point, or even beyond that; and no consideration of the sanitary condition of the work and workshop—obtained in this so-called civilised country until within the lifetime of most of us. There was great misgiving respecting the Government which should attempt anything beyond the repression of the spoliation of the property, and of the murder, of its subjects. But, happily, this is changed; and the Government of the day recognises that, if a moral chaos is to be avoided, and if a progressive deterioration of the race is to be arrested, there must be publicly prescribed conditions of labour, and a more or less enforced education of the working classes. Hence the enactment

and progressive extensions of the Factory Act; hence, also, the Labour Regulation Act and several minor measures aiming at the same objects. We who are gathered here to-day are especially concerned in the carrying out of those Acts. It is for us to make those Acts as efficient as possible; and to aim, moreover, as patriotic citizens as well as medical men, to discover in what direction those measures can be best extended and improved.

These remarks lead on to the consideration of the second purpose contemplated in the formation of this Association. In other words, we have to make good, and to advance, our position and influence as medical men engaged in the public service. We must demonstrate our usefulness as state medical officers, and, in addition, strive to show that our functions can be extended, and ought to be extended. And how can we better fulfil these indications than by working out the programme presented in Mr. Inspector Baker's circular letter, and, by combining together for this purpose and likewise for bringing to bear the result of united deliberations and of united action in future legislation on sanitary medicine?

If the medical profession is ever to vindicate for itself its true position in the state, it must be effected by the association of its members for the purpose of united action. We, the certifying medical officers under the Factory Act, number above 800. We have a common employment as such; we constitute an essential portion of the mechanism of the Act; we have singular opportunities for observation and for gaining information in all that relates to the intent and carrying out of that Act, and in consequence for making our value known to our legislators and their constituents. But withal we have had no bond of union; no organisation for directing and advising, for considering suggestions, or for representing our aims and wishes to those in authority; and, excepting the Inspectors' Reports, no medium for receiving and utilising the knowledge and experience gained.

Depend upon it, this chaotic state of ours cannot last. Whilst the old Factory Act alone existed, and its operations were limited to scattered places and districts, the factory surgeons ranked doubtless among local evils incident to those districts. But now that, by successive extensions of the Act, all factory labour is brought under the law, and medical officers are appointed to give effect to its provisions in every portion of the country, they assume quite another character, and the form of a public institution involving a species of taxation in every town in the kingdom. Their purpose, utility, and cost, become debated; and the question is raised whether the objects of the Act cannot be carried out without enlisting the services of medical men at all. Most of you will be aware that the necessity and value of the machinery of certifying medical officers are often the theme of discussion. Indeed, the subject was mooted in the House of Commons in the last Parliament, when the extension of the provisions of the Act to iron-works was brought forward; and you may form some judgment respecting the direction and the character of popular feeling by reading the discussion, and still more by the passing of the permissive clause dispensing with the aid of such officers on application to the Home Secretary. No general scheme has hitherto been proposed, and none is perhaps at once apparent, fitted to supersede the present system of medical certificates. All special regulations as yet made are so complicated and troublesome that no inducement exists to resort to them; and I am persuaded that the interests and well being of the working classes and the efficiency of the Factory Acts demand the employment of medical men, not only to the extent in which that employment is at present called for, but to a still greater extent.

But, if the present medical machinery of the Factory Act is to be maintained, and still more if it is to be enlarged, its constituent members must be united in harmonious working, in self-support, and in the assertion and demonstration of their importance in it. It will no longer do to appear almost exclusively concerned with certifying the age of those hired to work; for schemes may be suggested whereby the question of the age of children and young persons can be solved without the assistance of certifying surgeons. No! we must indicate our importance in the administration of the Factory Act, as medical men, by working out those great sanitary problems contained in Mr. Inspector Baker's circular letter. But we must not stop there; for it is incumbent upon us to demonstrate to the public that, to give due effect to the legislation of Parliament for the protection and regulation of labour, for the preservation of the health and physical well-being of the operative classes, and in general for all sanitary purposes, the assistance and co-operation of medical men is an essential element.

Indeed, if we examine the purposes, the provisions, and the whole machinery of the Factory Acts, we shall not be astonished at the introduction of the medical agency as it now exists, but rather at the small share in their operations allotted to that agency. The most important purposes and objects of those Acts partake of a medical character.

They refer to the conditions and circumstances of all sorts of labour, so far as they affect the health of those engaged therein; and they refer, again, to the protection of the workpeople against undue and unfit labour. The securing of proper ventilation; the discovery of causes connected with the workshops and work detrimental to health; the protection against, and the remedial measures needed for, noxious processes of trade; the detection of disease, or of morbid conditions incompatible with personal or with associated labour; the recognition of due maturity for employment,—such are the most important objects contemplated by Factory Acts. For I must call the provisions relating to overtime, the fencing of machinery, the proper keeping of books, and such-like, very subordinate, though indeed necessary, matters in those enactments.

Nevertheless, oddly, and I may say absurdly enough, those especially medical matters are placed in the hands of non-medical men for performance; for the subinspectors of factories are, I believe, without exception, or perhaps with that solitary exception which, as is said, proves the rule, non-medical men—very worthy, industrious, and able men, oftentimes admirably adapted to secure the general working of the Act, but untrained to execute the medical functions that constitute its intrinsic value. And the question remains for answer, Are the sanitary provisions of the Act brought as completely and efficiently into operation as they might be? Happily, one of the inspectors—Mr. Baker—is a medical man, and is competent to supervise the execution of those provisions; but, with half a kingdom to inspect, a personal oversight and a precise knowledge of the efficient working of the sanitary conditions required by the Act is impossible.

It is somewhat a marvel that the Act is so well worked, considering the heterogeneous class of unemployed gentlemen from which subinspectors are chosen, and the extraordinary sort of examination to which they are subjected, with the supposed view of ascertaining their qualifications for the office they aspire to. Many fashionable gentlemen about town are fortunately excluded from office by an unfortunate failing on their part to spell and write something like grammatical English, or to solve certain elementary problems in arithmetic, geography, and history. How the public service would fare, were a really sensible and practical examination enforced, were the candidates required to know the composition of air and the mode of detecting its impurities, the cubic capacity required for health, the indications of disease, the consequences of poisons used in certain processes, and such-like matter—is a question which the government authorities have never entertained, and may fear to face. Yet no authorities would fail to see the patent absurdity of asking medical functions from non-medical men; or, on the other hand, the advantages of having the services of those specially trained for such functions. Here is a matter for you, gentlemen, to think over. There is this much to be said, that no monetary inducements exist to tempt medical men to seek the office of subinspectors. An income of £300 a year, increased by prolonged service to £500, can act as no gilded bait to a professional man; yet there are medical men, doubtless, who would willingly accept such appointments, particularly among those possessing private means, and not caring for the battle to be waged in winning private practice.

But, further, would you as medical men show the Government how your professional knowledge and training could, in the capacity of subinspectors, be brought to bear in the more thorough execution of the sanitary clauses of the Factory Act; would you, moreover, demonstrate how such clauses could be amended and enlarged for a still more complete supervision, with a view to the material and physical welfare of the employed, and the amelioration of the conditions of labour; and, lastly, would you make clear to manufacturers the value to them, even in a pecuniary sense, of having healthy labour, and of obviating the prejudicial effects of substances and processes in use by them—you could not fail to advance the position, and therewith the emoluments, of the office.

The passing of the Labour Regulation Bill is a proof of the desire of Parliament to deal more thoroughly with labour and manufacture in their sanitary aspects. But it was felt that this Act could not be placed, for administration, in the hands of the factory inspectors. As was remarked, it would, in order to fully carry out its provisions, require an army of inspectors; and so, in the absence of any tangible plan, its execution was made everybody's business; that is, it was handed over to the discretion of local authorities, and rendered abortive. This result was foreseen, and no one is surprised at it; and the revision and amendment of the measure remain to be accomplished by the new Parliament. In the meantime, it should seriously occupy our attention. It seems to me that medical men are the proper persons to administer such an Act. A medical man is to be found in every town and considerable village, and presents a most fitting agency for exercising the supervision and authority called for by a workshop regulation

Bill. I will not here go into detail to show this, but commend it to your earnest consideration; for otherwise, if you neglect to put in a claim for medical agency in this measure, you will have yourselves wholly ignored, and see medical functions usurped by inspectors of nuisances and policemen.

I might refer to other Parliamentary measures and propositions in which you, as certifying medical officers, are deeply concerned, and in which, from apathy and the want of combination or a common centre of action, you have been, or are likely to be ignored. I would, just for example, direct your attention to the Acts passed for the inspection and supervision of bakehouses, of millinery establishments, and of chemical works, wherein the police or other improper agents are set to work in looking after sanitary arrangements. In short, there has been of late years, an immense amount of inchoate, tentative, and incoherent legislation, which must eventually break down, and, in doing so, may involve good work in its downfall. This legislation must, sooner or later, be revised and digested, and unless the medical profession is prepared to surrender its position in the State, or, rather, to abate the little pretensions to importance it has within a recent period acquired, it must be up and doing—working out the great problems of sanitary science, and asserting its importance in the supervision and control of all State sanitary measures. We should have had a much larger meeting, and have enrolled some hundreds of members, could we have addressed our circular letter to all the certifying medical officers throughout Great Britain. The fact is, we have been able at present only to get at half, viz., those who are in Mr. Inspector Baker's district. The other inspector, Mr. Redgrave, declined to furnish a list of those holding office in his district, very suggestively referring me, as a medical man, to the *Medical Directory*, which contains no such list; for had it done so, I should never have exposed myself to his want of courtesy in refusing my written application. This statement is especially necessary; for objection might fairly be taken by our colleagues in the other districts to forming ourselves into an association without an invitation to them. We must, therefore, ask them to accept this explanation, and to notify to us, on seeing reports of this meeting, their readiness to unite with us in advancing our common interests, and in promoting the efficient operation of the Factory Acts. We would also request them to aid in making a complete list of their number.

Having no flattering remarks called for in the case of one factory inspector, I have the more scope and better opportunity to ask your recognition of the courtesy of the other in aiding us in this movement by most readily furnishing a list of the certifying surgeons within his district. But this represents but a small portion of your indebtedness to Mr. Baker, who is the indefatigable advocate of the importance of medical agency in the operation of the Factory Acts, and who fails not in his most valuable Reports to exhibit how largely medical knowledge and observation may be put into requisition. He is an able and most important advocate of our interests as factory medical officers with the Government, and we shall greatly strengthen his hands and promote our own influence, by diligently working out the programme contained in his circular letter which you all possess, and, in general, by uniting in this Association to carry forward, among other things, the indications for action I have so imperfectly sketched. What is to be accomplished in State Medicine is best portrayed in the very complete memorandum put forth by the Committee or Council of Sanitary Science appointed by the British Medical Association, and which has appeared in the pages of the several medical journals. I hope that when this Association is duly organised, it will be invited to co-operate with that Committee.

OBSTETRIC MEMORANDA.

HEAD AND HAND PRESENTATIONS.

By MAXWELL T. MASTERS, M.D., Spring Grove.

THE narration of Dr. Tenison's case of head and hand presentation induces me to send the following extracts from my register. The fact that two such cases should occur to the same practitioner within a month is a sufficiently remarkable coincidence.

"1863. March 8. Mrs. F., Atwell Street, Peckham. Primipara. Hand by side of head. Male child, living."

"1863. April 4. Mrs. —, Rye Lane, Peckham. Third labour, full period. Rupture of membranes some hours before labour-pains fairly set in. On first examination, detected head and fingers in the brim of the pelvis. As there was plenty of space and ample power, labour advanced rapidly. I attempted in vain to push back the hand, but desisted on finding how favourably the case progressed. Child female, living. Fingers showed signs of pressure, which speedily disappeared. Placenta battledore-shaped."