COMMERCIAL INFLUENCES IN THERAPEUTICS.

BY

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ON taking the chair as President of the Section of Pharmacology and Therapeutics of the Royal Society of Medicine on November 13th, Professor CLARK, after thanking the Section for the honour it had done him, gave an address on the influence of commercial interests on therapeutics, in the course of which he made the following observations:

Certain work, done during the past few years, in examining widely advertised proprietary medicines, impressed upon me the light-hearted manner in which some firms made sweeping therapeutic claims for their products; claims in support of which they had little or no direct evidence. In addition I found that even when evidence was laboriously collected which indicated that these claims were erroneous, it usually made no difference in the advertised claims. This naturally caused me to inquire what safeguards existed in England to ensure that the claims made in advertisements of drugs were at least not demonstrably false. I found as a matter of fact that no such safeguards exist. Reputable firms, out of regard for the good name of their firm, are, of course, careful what claims they make in advertisements, but this is the only safeguard that exists.

I may say at once that, in my opinion, this state of things is extremely prejudicial to the progress of therapeutics, and that it is highly desirable that the medical profession should devise some sort of organization for its own protection in this regard.

The exploitation of therapeutics by large commercial concerns really only developed in the latter half of the nineteenth century. It is true that a company was formed in Paris shortly before the Revolution for the large-scale production of the Thériac, the famous mediaeval cure-all, but this company perished in the Revolution. Modern methods of advertising have enabled the exploitation of the public on a far vaster scale than formerly; moreover, a company with extensive capital can employ more skilled assistance in conducting propaganda, and hence there is a general tendency for the cruder forms of exploitation to disappear and to be replaced by much more refined methods. The production of drugs on a large scale has, of course, brought many very important benefits to medicine, for it has rendered possible the production of drugs of uniform quality, and has been of great help in the organized search for new remedies. But although the capitalization of the drug industry has rendered important services to medicine it is idle to deny that it has also introduced serious new evils.

It was recently estimated that the capital employed in America in making secret remedies was larger than that employed in the legitimate drug trade. In England it was estimated that in 1913 more than £4,000,000 was spent on such remedies, and that the trade spent £2,000,000 in advertising. I quote these statements as evidence that there exists a very powerful and extensive trade which exploits the public; as I shall shew later, there is no guarantee that this trade may not turn its attention to the medical profession if it conceives that such exploitation will yield quicker profits than exploitation of the general public. At present the medical profession has practically no organization available for its defence against such a move.

It is important to note that the law affords no protection whatever to the public or to the medical profession against any form of exploitation by proprietary medicine vendors as long as they avoid the laws against obscenity. The law on the subject was summarized in the report of the Select Committee on Patent Medicines in 1914¹ as follows:

Para. 22. "The situation, therefore, as regards the sale and advertisement of patent and proprietary medicines and articles may be summarized in one sentence as follows. For all practical purposes British law is powerless to prevent any person from procuring any drug, or making any mixture, whether potent or without any therapeutical activity whatever (so long as it does not contain a scheduled poison), advertising it in any decent terms as a cure for any disease or ailment, recommending it by bogus testimonials and the invented opinions and facsimile signatures of fictitious

physicians, and selling it under any name he chooses, on the payment of a small stamp duty, for any price he can persuade a credulous public to pay."

The Committee also came to these additional conclusions:

Para. 55. "(7) That the existing law is chaotic and has proved inoperative, and that successful prosecution for fraud in the advertisement and sale of secret remedies is fraught with the gravest difficulty, though the Public Prosecutor has perhaps not sufficiently tested the powers of the existing law in respect to such cases.

"(8) That consequently the traffic in secret remedies, except as regards scheduled poisons and the grosser forms of impropriety, is practically uncontrolled in this country."

The objection will at once be raised that these paragraphs refer to the blatant frauds advertised in the lay press, frauds which the medical profession has consistently denounced, and which really are of little concern to medical men. Unfortunately it is impossible to make any easy definition which will divide these blatant frauds from proprietary medicines of highest therapeutic value. These extremes are so utterly dissimilar that it is hard to believe that there is any relation between them, but every possible intermediate grade exists, and it is a matter of utmost difficulty to establish any formula to determine which proprietary articles should be recognized by the medical profession and which should be condemned. There is in fact no definite line that can be clearly drawn between quack medicines and legitimate proprietary articles.

There are, of course, certain classes of articles that the medical profession can condemn at once.

In the first instance secret remedies require no discussion, for it is contrary to every professional tradition for a doctor to prescribe a remedy of whose composition he is ignorant. The advertisement of a secret remedy is, however, merely an indication of a lack of ingenuity and imagination on the part of the manufacturer. Nothing is simpler than to give a formula and to claim either that one of the ingredients is obtainable only by the manufacturer, or that the value of the medicine depends upon the exquisite skill with which the ingredients are prepared and compounded.

As an example of a non-secret proprietary remedy one may take the preparation sold by Mr. C. H. Stevens. Stevens first sold remedies for pulmonary tuberculosis in South Africa named "Sacco" and "Lungsava." He then came to London and claimed that his preparation was not a secret remedy in that he was willing to give the formula to any doctor who requested it. The formula was stated to be 80 grains of Umckaloabo root and 13½ grains of Chijitse to every ounce, prepared according to the *British Pharmacopoeia* methods. Careful inquiries by the British Medical Association expert in South Africa failed to show the existence of Umckaloabo or Chijitse, nor could any record of them be found in any work on pharmacy. The Select Committee on Patent Medicines examined Stevens's cure (para. 43) and the Government Chemist gave the following analysis:

	Sample First Bottle.	Sample Last Bottle.
Proof spirit	19.5 per cent.	19.5 per cent.
Solid matter	2.8 "	3.4 "
Mineral substance (ash)	0.2 "	0.2 "
Glycerol (approximately)	10.7 "	17.8 "

"No alkaloids or resins were found. The solid matter corresponds with the colouring and extractive substances of an ordinary wine. The samples are therefore essentially mixtures of wine and glycerol."

Stevens brought an action against the British Medical Association for statements made regarding his remedy in *Secret Remedies*, and as the Select Committee notes, "the defendants pleaded justification, and the jury found for the defendants." In 1915 the "cure" appeared in the United States as the "U.P. Extract" exploited by the Umckaloabo Chemical Company of New York City.

During the past three years articles have appeared in the Swiss medical journals, in which Dr. Sechehay² is reported to state that he has treated numerous cases of tuberculosis with Umckaloabo, and that it has acted as a real specific in tuberculosis. It would appear that these articles and conclusions are being broadcasted to the medical profession of this country.

I have spent so much time on this particular case because it is an example of a non-secret remedy supported by an article by a medical man published in a reputable journal. The Government Chemist's report is sufficient evidence that this is not the type of proprietary article that we would wish to see supported by the medical profession in this

country, and yet it could not be excluded either on the grounds that it was secret or that it lacked backing by a qualified medical man.

The rule that articles are to be advertised to the medical profession only is absolutely worthless as a guarantee against fraud. Advertising to the public direct is expensive, whilst advertising to or even circularizing the medical profession is relatively cheap. Hence it may pay better for a firm to confine itself to the medical profession.

The same form of advertisement will not of course appeal equally to the lay mind and the medical man, but a skilled advertiser can exploit the latter as easily as the former. This danger became acute some years ago in America. I quote some remarks by Dr. G. H. Simmons, editor of the *Journal of the American Medical Association*.⁴

"It has become a recognized fact in the patent medicine field that the easiest and cheapest way of reaching the public is through the doctor. Let me quote a paragraph that appeared in *Printer's Ink*, an advertising journal (about 1903); the words are those of a patent medicine man and they are not directed to the medical profession. 'But the patent medicine of the future is one that will be advertised only to doctors. Some of the most profitable remedies of the present time are of this class. They are called proprietary remedies. The general public never hears of them through the daily press. All their publicity is secured through the medical press, by means of the manufacturers' literature, sometimes gotten out in the form of a medical journal, and through samples to doctors. . . . The original bottle is given to the patient; he sees that the remedy does him good, and when he feels a trifle run down again he goes to a drug store and buys another bottle, not troubling the doctor. He meets a friend on the street who is not looking well. 'I know exactly how you feel,' he says. 'Now just go and buy a bottle of . . . Best thing in the world.' My doctor prescribed it for me, so it isn't a patent medicine.' In this way the names of remedies advertised only to physicians get abroad to the general public. The proprietary medicine of the future, though, will be advertised through these channels. The medical papers will reap the harvest and the physician himself, always so loud in the denunciation of patent medicines, will be the most important medium of advertising at the command of the proprietary manufacturer."

Dr. Simmons concludes: "Have you ever seen an arraignment of this evil by its enemies which equals this cynical statement by its friends?"

This quotation is, I think, sufficient to show that there are no simple rules by which the medical profession can protect itself against exploitation.

There is, as I have said, a vast range of proprietary medicines varying from valuable scientific preparations, such as the best brands of organic arsenical preparations, down to the lowest form of quack frauds. The law is impotent, and medical men have got to make up their minds what they are prepared to recognize and what to reject. Huge commercial interests are involved. Obviously an unscrupulous manufacturer will consider what types of chronic diseases are particularly refractory to treatment, and choose in preference those which are painful and afflict well-to-do patients. Such diseases are, of course, the despair of the general practitioner, and he will be ready to try anything that can possibly be of benefit. In preparing the remedy the manufacturer will probably select some new scientific discovery, which is a novelty and whose powers are still undefined. It is a great advantage of course if the substance is such that there is no easy method of testing its purity or activity. The rest is easy—a commercial interest is there ready to boom the preparation and it is nobody's business to check the statements made.

Obviously the general practitioner—who is not an analytical chemist, nor an experimental pharmacologist, nor a secret inquiry agent—has no means of testing the inherent probability of a new remedy. On the other hand the exploiters of a new remedy have the power of money behind them to promote the sales and profits.

As regards the attitude of medical men to doubtful proprietary remedies the following extracts from the Select Committee on Patent Medicines are of interest:

Para. 29. "With regard to advertisements in the medical press, we consider that adequate censorship has not in all cases been exercised, as indeed was admitted by Dr. Cox, the representative of the British Medical Association, and instances to this effect will be found in the evidence we received.

Para. 47. ". . . We have learned . . . to our great surprise that persons of influential social positions and small means will sell the use of their names to advertise secret remedies; that large sums of money are expended in canvassing medical men; that many medical men give testimonials (with the use of their medical qualifications, but without the use of their names) to proprietary

and secret remedies, and allow themselves to be made, as a medical man declared in a public address, 'the cat paw and fool of the fraternity of the secret remedy'; and that there are medical men who prescribe to their patients remedies of this class of whose composition they are themselves largely ignorant. We had evidence in two cases of medical men acting as directors of companies manufacturing secret remedies."

The evil of proprietary medicines developed perhaps to a greater extent in America than in this country. The evil first became obvious about 1879, and early in this century the position was defined as follows by Dr. Simmons:

"Conditions in this regard had become so disgraceful . . . that there seemed to be no statement too silly, no claim too extravagant and no falsehood too brazen for use by those who wrote the advertising literature that physicians are asked to read and believe. . . . In brief this business, the annual profits of which run into millions, has grown until the use of proprietary medicines by many physicians has almost displaced the use of the individual official drug. It has checked advance in scientific methods of treatment, inhibited intelligent clinical observation and developed an optimism that is unwarranted by facts, an optimism that is more fatal than the most radical therapeutic nihilism. But above and worse than all, this commercialized materia medica has blighted our literature by debauching our medical journals and even by tainting our textbooks."

These are strong words and picture an evil somewhat worse than any that we have in this country to-day. The evil produced, however, a reaction in America, and steps were taken to check it, whereas in our country it still flourishes unchecked.

The American Medical Association in 1905 appointed a council on pharmacy and chemistry composed of leading chemists, pharmacologists, and clinicians. These examined all proprietary remedies and published a list and description of all such remedies as conformed to certain simple rules. This list is published annually under the title of *New and Non-official Remedies*, while rejected substances are dealt with in other volumes.⁵

The rules of the Association were roughly as follows:

The drug must not be of secret composition, must not be advertised directly to the public, and must not be advertised indirectly to the public by means of literature sent with the bottle stating the disease it is intended to cure; the name must not suggest therapeutic claims, no unwarranted, exaggerated, or misleading statements as to the therapeutic value must be made, and no article is accepted which is useless on account of its unscientific composition. Of these rules the last two are obviously largely matters of opinion, but are perhaps the most important of all.

The American medical practitioner, therefore, who is deluded by specious advertisements into recommending some useless nostrum has only himself to blame, since he is acting against the considered advice of a body of expert opinion.

In other countries also an attempt has been made to set up some machinery to judge the claims of advertisement of proprietary articles. The *Medical Journal of Australia*,⁶ for example, has arranged to conduct analyses of Australian proprietary products submitted for advertisement. In Holland the *Rijks-Instituut voor Pharmaco-therapeutisch Onderzoek* has conducted a series of analyses on patent and proprietary preparations.⁷ In the case of the latter combined chemical, pharmacological, and clinical tests have been undertaken, providing very valuable information. In this country valuable work has been done by the *Lancet* in publishing chemical analyses of proprietary preparations.

Over ten years ago the British Medical Association did a particularly valuable public service in publishing the two excellent volumes *Secret Remedies: what they cost and what they contain*. The British Medical Association, moreover, has passed a series of resolutions regarding preparations which it is prepared to accept for advertisement. The most important regulations exclude advertisements containing any demonstrated false statement, and preparations the principal ingredients of which are not disclosed to the profession, and preparations which are advertised elsewhere in a misleading or objectionable manner.

The BRITISH MEDICAL JOURNAL, the organ of the Association, finds it necessary, however, to print below its index to advertisements the statement, "It must be understood that the acceptance by the British Medical Association of an advertisement does not imply a recommendation and that no responsibility is accepted with regard to the accuracy of the statements therein contained." The

measures which have been taken in England are of value, but I think that it is clear from what I have said that nothing short of an organization conducting extensive chemical and pharmacological tests, and in certain cases even clinical tests, is sufficient to give reliable information on the really important point—namely, whether the therapeutic claims made for a proprietary remedy are based on reasonably satisfactory evidence.

American experience has demonstrated that it is possible to provide such a source of information, and that it is of great service to the medical profession, but it has also shown that the work is difficult and expensive, and that if effective it is certain to arouse furious opposition from the vested interests it injures.

The object of my paper is to convince the Section of the desirability—nay, even the necessity—of having some organization in this country to perform a similar work.

REFERENCES.

¹ Report from the Select Committee on Patent Medicines, H.M. Stationery Office, 1914. ² *Rev. Méd. de la Suisse Romande*, 1920, p. 533, and 1921, p. 131. ³ *Rev. Suisse de Méd.*, 23, No. 7, 1923. ⁴ G. H. Simmons, *Journ. Amer. Med. Assoc.*, 48, 1645, 1907. ⁵ *New and Non-official Remedies* (annual); *Nostrums and Quackery*, vol. i, 1912, and vol. ii, 1921; *Propaganda for Reform*, vol. i, 1915, and vol. ii, 1921; *Journ. Amer. Med. Assoc.*, Chicago. ⁶ Blackburn: *Med. Journ. of Australia*, April 2nd, 1921. ⁷ *Mededeelingen van het Rijk-Instituut voor Pharmaco-therapeutisch Onderzoek*, Leiden, 1921-1923.

England and Wales.

TUBERCULOSIS IN LANCASHIRE.

THE report for 1922 by Dr. G. Lissant Cox, central tuberculosis officer for Lancashire, has some interesting features. In a chapter on the distribution of pulmonary tuberculosis in Lancashire in different localities and in different industries, it is demonstrated that there is a marked difference between the spinning and the weaving districts of the county. Pulmonary tuberculosis is much more prevalent in the male population of the former (the Oldham district) than in the latter (Blackburn and Burnley). Between Blackburn and Burnley themselves there is also a considerable difference, both the male and the female population of Blackburn being remarkably immune, though even Burnley has rates appreciably below those for the whole of the administrative county. The explanation suggested for the difference is that in the Burnley district the number of men employed in mining and quarrying (4,836) is three times as many as in the Blackburn district, while, if the comparison be confined to the two county boroughs, the difference is fully nine to one. In the predominantly rural areas of Lancashire the rate is 36 per cent. below the county average. If house accommodation be taken as the criterion it is found that, as was to be expected, overcrowding, as amongst the St. Helens glass workers, the central Lancashire coal miners, and the Widnes chemical workers, is accompanied by a heavier tuberculosis mortality than where living conditions are better. Another tuberculosis problem dealt with relates to contacts. Of 1,626 "house contacts" examined, 79 were diagnosed as definitely tuberculous, 57 of them being pulmonary cases and 22 non-pulmonary; evidence for the correctness of the diagnosis is submitted in the report. Where the patients with whom the contacts lived were "open" cases many early or unsuspected cases were discovered, but including all classes of patients the infection of contacts was at the high rate of 48.6 per 1,000.

Dr. Lissant Cox reports on a third question of constant interest—the value of sanatorium as compared with home treatment. After certain necessary explanations of his classification, he goes on to analyse 3,948 histories of adults who began treatment during the five years 1914-18, the conditions being stated as at the end of 1922. Of 981 sanatorium cases and 728 non-sanatorium cases in the early and intermediate stages with negative or absent sputum, 16 per cent. of the former and 42.6 per cent. of the latter had died. Next, as to cases of positive sputum, of 1,286 sanatorium patients 66.2 per cent. were dead by the end of 1922, and of 953 non-sanatorium cases 84.8 per cent. It is pointed out that both for sanatorium and home cases early diagnosis is very important, and that absent or negative sputum means longer capacity for work and

better chance of survival. Cases with positive sputum in the age period 15-25 years have a higher mortality than any others. There has been an improvement in respect of notification. In 1918, 18 per cent. of the fatal cases were not notified during life; in 1919, 16 per cent.; in 1920, 13 per cent.; in 1921, 10 per cent.; and in 1922, 8 per cent. But surely a lower rate still can be achieved, even though the 8 per cent. is much better than in various other places, where omissions range from 12 to 41 per cent.

HEALTH OF LIVERPOOL.

The city of Liverpool covers an area of 33 square miles, and at the middle of 1922 the population was estimated at 823,095. The birth rate during 1922 was 26.1 per 1,000, the death rate from all causes 14.6 per 1,000, and infant mortality rate 14.3 per 1,000 births. The birth rate in the Woolton district, where there is a population of about 10,000, was as low as 15.8 per 1,000, but in the Scotland district, with a population of 46,000, it was 37.2. The death rate in these two districts was respectively 9.8 and 19.9 per 1,000, and in the Exchange district, with a population of 36,000, it was as high as 23 per 1,000. There is a like disparity as regards the infant mortality. In Woolton this rate was equal to 53 per 1,000 births, in the Scotland district 120, and in Exchange 133 per 1,000. In the preface to his report Dr. E. W. Hope expresses the opinion that the infant mortality rate is always the index of the sanitary condition of an area. There would appear, therefore, to be plenty of work still to be done by the sanitary authority in the worst parts of Liverpool. Few if any local authorities have paid more sustained attention to the housing of the working classes than the Corporation of Liverpool. During the past three years it has erected over 5,000 houses, and 500 bungalows have been converted from army huts; but there are still several thousand applications for houses from persons housed under bad conditions but who are well able to pay reasonable rents for accommodation if it could be found. Referring to those families who live in one room Dr. Hope considers that such conditions are gravely prejudicial to the public health and welfare of the city. There is, he says, an increased demand upon the hospitals for treatment of minor ailments which under ordinary conditions could be dealt with at home, and requests for admission to maternity hospitals or homes increase for the same reason. The risk of the spread of tuberculosis is accentuated, and many instances occur in which persons, after leaving a sanatorium, quickly relapse into their former condition on returning to their overcrowded rooms.

The great increase during recent years in the population of many large towns contiguous to each other has led to difficulties in administration and in some cases to avoidable expenditure. Within the past two years an attempt has been made by the Merseyside county boroughs of Liverpool, Bootle, Birkenhead, and Wallasey to overcome these difficulties by some scheme of co-operation. Pending general agreement on a large scale by the councils concerned the medical officers of health have agreed that in the event of any disease scheduled under international agreement arising in any part of the area of their administration, the fact should be forthwith reported to the port medical officer for communication to the consular body or bodies. It was also agreed that in the event of such outbreak assuming grave proportions the medical officer of health of the area in which the case arose should on request be entitled to assistance from the staff of any other of the riparian authorities.

The conditions under which animals are slaughtered in Liverpool are anything but satisfactory. The 17 private slaughterhouses are said to be well conducted and kept in good condition, but many of them are situated in cramped and congested positions, and are not suitable for the purpose to which they are put. The central abattoir, which covers an area of seven and a half acres, is in such an unsuitable position and the buildings are so congested that Dr. Hope strongly urges the erection of a modern abattoir and meat market in keeping with other branches of public health work in the city. He compares by means of excellent photographic illustrations the modern slaughterhouse in Edinburgh with the Liverpool buildings. If the Liverpool