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ON THE HISTORICAL INVESTIGATION OF OCCUPATIONAL DISEASES

AN APERÇU

GEORGE ROSEN, M. D.

Although the investigation of medical history is being pursued to-day with greater vigor than ever before, there is one field of medicine which has remained comparatively neglected by the medical historians, namely, the occupational diseases. In order to understand this state of affairs certain preliminary considerations are necessary. If one stops for a moment to consider the nature of historical research it is immediately apparent that an analysis of any aspect of this subject must be dual in character; the analysis must consider not only the development of the particular subject matter under consideration but it must also consider the nature of the mental conceptions involved in the methodological approach. Let us first consider the latter factor. It will necessarily be conditioned by the current view of historiography.

The modern conception of history is comparatively recent. From antiquity until well into modern times history concerned itself with affairs of state. As one English historian expressed this viewpoint history was past politics. Neither the masses nor anything concerning them were deemed worthy of interest. With the modern introduction of political and civil equality in the nineteenth century and under the influence of the social sciences with their important discoveries concerning the nature of man and the social organism, the time-honored conception of history had to be revised. Inevitably the political orientation in the study of history gave way to a broader view which took into account, not only war and government, but also industry, commerce, science, technology and everything else that conditions man's social existence. In consequence, towards the close of the nineteenth century the New History, as the all inclusive societal view became known, had given an enormous impetus to the investigation of those aspects of human activity which, precisely because of their assumed inferiority, had received scant attention. Among these social activities, medicine assumed a place as subject for historical research.

The methodological approach was based upon theoretical conceptions conditioned, not only by the development of historiography as outlined above, but also by the development of medicine itself. Despite the fact that medicine in its origins arose in answer to a fundamental social need—the problem of disease—it nevertheless developed to a large extent on an individualistic basis. Disease was dealt with individually; the sick man was treated without much attention being paid to the possible relationship existing between his disease and his background or surroundings. Physicians, accustomed to observe human life, could not fail to recognise that social conditions exerted great influence upon man both in health and disease. Since medicine, however, was developing upon the atomistic basis of the diseased individual as its chief concern, this problem was neglected and remained outside the province of the physician's activities and interests.

The rise of capitalism and the introduction of the Industrial Revolution at the close of the eighteenth century created the masses of the modern industrial proletariat. Forced to crowd into insanitary slums, doomed to starvation by the iron law of wages pontificated by the bourgeois economists and suffering periodically from unemployment, the lot of the industrial workers was a miserable one. Through the initiative of the working class and through the efforts of socially minded individuals the public conscience was aroused to combat these evils. Social questions of the greatest moment—questions of labour legislation, of public aid, and of hygiene and sanitation—agitated the body politic. Legislative and administrative measures calculated to alleviate and remove the worst evils were enacted. The result was that medicine was forced to take notice of and enter into the field of social politics.

From this moment on, the entire viewpoint of medicine was radically altered; now it was concerned not only with the diseased individual but with a more inclusive whole, the diseased social organism. The investigation of the sick man as a social organism demands the investigation of man as conditioned by his environment, his work, his home, his struggles and aspirations. Thus medicine joins hands with sociology and every part of medical knowledge acquires a social content.

Historically industrial medicine is the first product of the social orientation of medicine for industry was the first field of human activity where medicine came into contact with social affairs. The foundations of this branch of medicine were laid in the eighteenth century, but it was only in the nineteenth century, when stimulated by social legislation, that it began to develop rapidly. The investigation of the worker and his diseases naturally led physicians to study the milieu of the laborer, the ultimate goal being the prevention of disease. These investigations supplied medicine with a rich factual knowledge and laid a firm foundation for the development of industrial and social hygiene.

The relation of these considerations to the study of medical history will now be apparent. Problems of medical history may be approached in several ways. The character of these approaches corresponds in a certain sense to the developmental stages in medicine and historiography, which have been considered above. The literature of any medical subject may be investigated with the view in mind of ascertaining the discoveries of earlier authors, which have contributed toward the progress or solution of the particular problem. These positive facts may then be gathered and arranged biographically and chronologically. Essentially this older method of medical historiography is founded upon the same basic viewpoint as the older individualistic medicine. This older method is, however, too superficial and one-sided. Recently as a result of the influence exerted by the New History, new views have begun to prevail in medical historiography. Realising that medicine is but one of the many phases of man's activity as a social being, attempts have been made to explain medical theories and activities as an organic part of the period in which they existed. In other words, using the culture of the particular period as a frame of reference, medicine is shown to exist in a definite relationship to the basic social tendencies of the period. As a result much which had formerly been disregarded, scoffed at and misunderstood, appeared in a new light. Abstruse doctrines, which upon superficial examination had all the semblance of arrant nonsense, were recognised as being the medical reflections of definite cultural currents.

Despite the fact that the cultural conception of medical history

represents a distinct advance over the older theory it **does not go** far enough in its analysis. Cultural currents—be they philosophical, artistic or political—are no more than the surface manifestations **of** much more fundamental forces determining the direction of social development.

Society is not a simple arithmetical aggregate of men. The various aspects of human activity are conditioned by the economic structure in which they are embedded and which imposes certain definite **relations** upon them. The application of this theory to the history of medicine requires the consideration of various factors which had previously remained comparatively unnoticed. It focuses attention on the necessity for investigation of those aspects of social activity which, since they were the concern of the working classes, had **not** been considered worthy of interest. Technical processes, the daily routine of mine and factory, the conditions under which the worker lives—all are seen to exist in a deep and significant relation **to** medical thought and practice. A new light is thrown upon the functional relations of medicine in society by considering the physician as an economic unit in a society with a particular class structure. Social conditions, with which medicine is brought into intimate contact undoubtedly influence the development of medical thought and practice and condition the direction which they take. It seems therefore to offer a suitable theoretical method of approach to the complex social and economic problems of medical history. Investigation of these problems offers an opportunity for new discoveries and interpretations in the history of medicine, leading eventually **to a** profounder understanding of the dynamic processes, which govern the relations between medicine and other social activities.

It now becomes evident that several reasons may be advanced **to** explain the neglect which the historical study of occupational diseases has experienced. In the first place it is apparent that the study **of** occupational diseases is one of the youngest branches of medicine and that only within recent times has it come within the province of the practicing physician. The accumulation of a considerable body of factual knowledge was necessary before any historical **study** could be attempted. Secondly the lack of an appropriate theoretical basis for investigation very definitely retarded the study **of this** branch of medical history.

Research in the field of occupational medicine needs no special apology. In view of what has been said above, one can readily understand that the results of these investigations will be of great significance, not only in comprehending the development of industrial medicine and hygiene to the condition in which it confronts us to-day, but in a larger sense for the study and understanding of man's social evolution. Historical research on this subject will necessarily concern itself with many factors. The relations of some of these factors to the topic being investigated will not be immediately apparent. A brief glance at the various factors involved in the study of any occupational disease or group of diseases will suffice to demonstrate the numerous ramifications of industrial medicine in society. These factors must of course be located in a definite frame of reference e. g. in a particular time sector. This premise demands as a prerequisite a consideration of the factors which determine the aspect and condition the culture of the period under discussion. According to that theory which appears most promising for the historical investigation of occupational medicine the productive forces at any given time are the basis of the social structure of that time. The methods by which the productive forces are put to work—the mode of production—are conditioned by given factors, the most important being the state of technics during the particular period. Technics include not only material technique,—technology— but also mental technique, i. e. conceptional structures, which arise in answer to definite needs.

The frame of reference, necessary to locate the object of investigation, would then include a general description of the social structure in its economic, technologic, political, religious and cultural aspects. The definition of these elements is indispensable, since the two groups of people with whom the student of the history of occupational medicine is primarily concerned, the workers and the physician are conditioned by these aspects of their society and their relations are to large extent determined by them. Having sketched the basic outlines of the picture, the field of investigation must then be confined to the particular industry under scrutiny. In this narrower field the technical side of the industry must be examined, the working conditions determined and the existential relations of the

worker with respect to aspects of society, such as religion and politics, studied for any bearing they may have on his social status. Once these facts have been established, the medical aspects of the problem must be attacked with the view in mind of ascertaining the diseases described during the period. The extent of medical knowledge pertaining to the nosology, etiology, pathology, clinical aspects and therapeutics of these diseases should be determined. It will be necessary to determine how widespread this knowledge was among practicing physicians and what actually was done to prevent and cure these diseases. These elements will to a large extent be dependent upon the state of medicine at the time. Prophylactic measures on the other hand must be investigated with regard to the state of development of technology and the social status of the worker concerned. The final aspect, which should be investigated, in order to round out the historical picture of industrial disease at any particular time, should be statistical in nature. This information should be concerned primarily with mortality and morbidity, and will naturally depend on the co-existent state of statistics. Since statistics, particularly with reference to disease, are of rather recent origin, any references in earlier periods to this aspect of industrial disease will naturally be vague, meager and rather crudely expressed.

Legislative and administrative measures calculated to eradicate or palliate industrial evils, by the very nature of their purpose, belong in an historical study of occupational diseases. Research will logically concern itself with the origin of these measures, attempting to ascertain the social forces which brought them into being. The part played by the advance of medical knowledge and the role of the workers in obtaining needed industrial reforms will be of special interest.

This sketch has made it sufficiently clear that the time has come for a new appraisal of the history of medicine. It is very likely that the development of research concerning the history of industrial disease will lead the way in this process. Be that as it may, however, the history of occupational medicine will certainly, by explaining their development, contribute to a better understanding of and a deeper insight into many of the pressing problems of our industrial society.