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President's Address TOPICS, THOUGHTS, AND TENDENCIES

BY

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When you did me the signal honour of appointing me President-Elect of the British Medical Association I took courage from some lines of the oft-quoted sentence, "Be not afraid of greatness . . . some have greatness thrust upon them." It is in this spirit that I now address you as President, first thanking you, my friends, for the distinction you have conferred on me. In doing honour to me you have bestowed an even greater honour on my Irish colleagues, and on their behalf I extend to you their most grateful thanks.

The office of President of the B.M.A. in the past has been filled by so many distinguished men that I hesitate to select any particular name for mention. But it would be discourteous if I did not refer to one who, by his dignity and erudition, has served you so well. I refer, of course, to our friend Sir Henry Cohen. Your immediate Past-President, Dr. Sichel, has also played a leading part in looking after your interests from far distant lands. No President of the British Medical Association could venture to undertake the responsibilities of his high office without the full support and approbation of his fellow members. It is on these considerations that I ask you to give me your full-hearted co-operation, for I am anxious to be in harmony with your wishes.

In the past the B.M.A. has met in Ireland on no fewer than six occasions. By reference to back copies of the *Journal* one can infer that the meetings in Dublin, Belfast, and Cork were highly successful, and that infiltration of the B.M.A. by Irish blood has not given rise to any incompatibility. We now meet in Dublin for the fourth time, previous meetings having been held in the years 1867, 1887, and 1933, with William Stokes, John Banks, and T. G. Moorhead as Presidents.

The achievements of these great men are well known. The two who have passed beyond our ken have left their names inscribed in the annals of medicine. Happily, Moorhead is still with us. This occasion should not be let pass without paying a special tribute to him. He has brushed aside adversity with a courage and a fortitude that have never faltered. We admire him for his wisdom, knowledge, and high ideals. He is truly an ornament to the profession, a gentleman indeed in whom we place an infinite trust.

It is interesting to recall, in a rapid survey, some of the events of previous annual meetings in Dublin, and to try to contrast them with our present conjoint meeting. At all meetings there has been a unity of purpose to bring the profession together socially and academically, and to explore the ramifications of medical politics in relation to the times.

In these days of austerity it might perhaps be as well to gloss over the social amenities of the past, for they were intimately connected with the value of currency and a more leisurely way of life. Some of us will no doubt miss the excursions by the four-in-hand coaches, Tantivy and Hirondelle, which were special features of the meeting of 1887. Nevertheless, enjoyment is a matter for the present, for in the retrospect only the pleasant memories remain.

Contributions to Medical Science

On the academic side it is on record that scientific sessions of the B.M.A. were inaugurated for the first time at the Dublin Meeting of 1867. Of world-wide importance was the address by Joseph Lister "On the Antiseptic Principle of the Practice of Surgery." We in Dublin are proud that from this city came forth the first public pronouncement on the antiseptic principle.

At other annual meetings in Dublin many important contributions to medicine were made; but they are too numerous to mention now. One can, however, hardly pass over the contributions of Kocher, of Berne, and of Unna, of Hamburg, to the B.M.A. meeting of 1887. Some of us will remember the important paper by Dr. Winnett Orr, on the treatment of chronic osteomyelitis at the meeting of 1933.

In connexion with our present meeting Plenary Scientific Sessions are being started for the first time. Another new development is the holding of a Scientific Exhibition. Both these innovations are well worthy of support, for they foreshadow even greater things to come. The Hobbies Exhibition in Dublin in 1933 is being revived again this year, probably because we think, like some Americans, that "a hobby is something you go goofy over to keep from going nuts over things in general."

Nowadays medical politics occupy a much more prominent place in the Association's activities than heretofore, so later on some reference will have to be made to the subject. Since the foundation of the B.M.A. there has always been close and harmonious co-operation between members of the medical profession on either side of the Irish Sea. A kind of professional parallelism existed, and still exists, although these lines of symmetry have sometimes wavered under the impact of political evolution and legislative enactments.

Bonds of Friendship

These evolutionary changes have not in any way altered the good relations between the B.M.A. and the I.M.A.—in fact, the bonds of friendship have become more closely knit. In evidence thereof the B.M.A. has recently afforded generous financial facilities to the I.M.A. for the purchase of new premises, and the holding of a joint meeting this year shows a spirit of co-operation and good will which augurs well for the future. To assure continuation of these good relations some attention must be paid to the different problems which the two Associations have to face. Owing to legislative enactments, both old and new, the pattern of medical practice has been and is likely to be dissimilar in both countries. But where there may be variations in methods of practice there should be uniformity in matters of precept.

The B.M.A. is obviously dissatisfied with some of the provisions of the National Health Service and has voiced the hope that reforms will be made under amending legislation. The recent Danckwerts Award, while meeting the just claim of the doctors on a financial issue, does not of course remedy many other grievances connected with the working of the National Health Service. While the I.M.A. is not likely to be faced by a National Health Service on the British lines, it does fear the imposition of bureaucratic State control, which it will strenuously oppose. It is unnecessary to burden you with the reasons for this opposition; it is not in the nature of a maverick revolt, nor is it based on the whimsy notion of being "agin the Government." There is no doubt, however, that undue intrusion of the State into the practice of medicine is a matter of grave concern to both Associations.

Upholding of Principles

The high ethical standards of our profession must not be allowed to waver at the behest of those who would lower our dignity and cause us to forfeit our allegiance to our high tradition. We as a profession occupy a privileged position in society which can be maintained only by strictly upholding the principles on which the privilege was granted.

In recent years the concept of the Welfare State has been gaining considerable public support, particularly as one of its main ideals is to entrust the State with responsibility for the health of the people. This doctrine is, of course, not entirely unobjectionable—in fact, the whole of modern State medicine comes within its tenets. But the doctrine would be repugnant if it were to envisage an exclusive or excessive responsibility of the State over the liberty of the individual and the family way of life. This danger is not yet fully realized by the public, for they may be misled by political clamour and subtle propaganda into thinking that State monopoly over the health of the people would be a Utopian achievement.

Exclusive or excessive State responsibility would mean large-scale State control and administration by Government fiat. Under such a system the medical profession would lose its independence; the impulse for individual incentive would be blunted, and the public would suffer as a consequence. As a warning of these dangers attention should be paid to the dictum of Cervantes that "everyone is the artificer of his own misfortune." One freely admits that social medicine has conferred estimable benefits on the

community and that still more can be done to extend the scope of its activities. In this crusade the medical profession should take a leading part in its endeavour that the best of medicine should be made available for all. To achieve success there should be harmonious and continuous partnership between Governments, the medical and allied professions, and responsible leaders of the community.

The recent expansion of social medicine and of national health services has led to a new relationship between the doctor and State in which the position of the general practitioner seems to have been adversely affected. It is common belief that the status of the general practitioner has gradually become lowered and that his position as a friend, counsellor, and confidant has greatly declined in the eyes of the public. This is a reflection on the medical profession as a whole, for it is by the standard of the general practitioner that the entire profession is measured. Several factors seem to have been responsible for this unfortunate state of affairs.

A Prime Essential

All the blame cannot be attributed to State intervention. The profession has also been at fault, and it is time that it should put its own house into order. This will need careful planning at both pre- and post-graduate levels. The first essential is to curb the incentive for specialization, which has been encouraged to an unreasonable degree. Without neglecting the purely academic side of medicine, many more students should be encouraged to aim at general practice as their ultimate goal. For this the student of to-day does require a period of training, which might best be given efficiently by selected general practitioners.

General practitioners of standing might be appointed, as necessary, to the staffs of teaching hospitals; here they could give special instruction in their own *métier*, and also arrange for domiciliary visits with the student in attendance. Common ailments constitute about 90% of all illness, and the management of these can be properly learned only by seeing the family doctor in action and following him on his rounds. Later, as a postgraduate, the student would undergo a period of apprenticeship with a G.P. in further preparation for his entry to the ranks of general practice.

Revision courses will be needed from time to time so as to keep abreast of recent advances in medicine. Too many young doctors are seeking higher degrees by the short cut of intensive study rather than by the long road of practical experience. Postgraduate diplomas obtained after a short period of study should not entitle a doctor to regard himself as a specialist. The measure of proficiency of any person should depend on his basic knowledge of generalities.

The G.P. should occupy a position second to none in the profession. Why should he be expected to regard the specialist as belonging to the highest ranks of our medical hierarchy? In general, the family doctor carries into practice the true Hippocratic approach to medicine with much more sympathetic feeling than the specialist, whose work confines him to a much more restricted field. "Where there is love of humanity there, too, is love of the art."

Nevertheless many G.P.s are discontented, and some would seek to enhance their position through the foundation of a new College of General Practice with powers of conferring higher degrees. There are some arguments for and against such a College, the chief objection being the risk of grading of the general practitioner, and causing a category of specialists within its own ranks. It is generally agreed that no doctor can adequately practise medicine to-day without hospital facilities, for a doctor in general practice who has not some access to a hospital is like "a carpenter without his tools." The doors of the hospitals should be freely opened to the practitioner, so that he can follow the progress of his patient and test his diagnostic skill at every stage of an illness. In some isolated localities it would seem highly desirable that the smaller hospitals should be staffed by general practitioners with specialists at their disposal.

Apart from the importance of prestige, a good deal could be done to lessen the burden of work which appears to be the lot of many general practitioners. Overwork and good medicine are mutually antagonistic. A doctor who has to keep too many records and to see too many patients must at times suffer from mental and physical fatigue. Sometimes he is driven to lessen the load of his manifold responsibilities by referring some of his patients with undue precipitancy to a specialist or to a hospital. The sharing of liabilities in this way often leads to delay in starting treatment, and personal touch with the patient may easily be lost.

Although much has been written about the plight of the general practitioner, too little has been said about the reactions of the patient under the influence of State-organized medicine. Of recent years broad changes have taken place in the attitude of patients towards their illnesses. They now often welcome, and indeed demand, full-scale methods of investigation and do not mind running the gauntlet of men and gadgets. While, up to a point, this outlook is desirable, it can be abused when patients avail themselves of a service which gives them the right to consult their doctors and consultants on the slightest provocation. There is also a fear that under a so-called free service some patients may become too introspective about minor ailments and that the trammels of imaginary ills and anxieties may become self-nurtured to an unreasonable degree. No one would decry the importance of minor disturbances of either the body or the mind, but factors which might tend to initiate, aggravate, or perpetuate them should be discouraged. The unnecessary direction of patients from doctor to doctor in a roundabout fashion may appeal to some of them, but others will be dissatisfied and lose confidence in the competency of their own medical attendant.

As the subject of State-organized medicine appears to be limitless, it is a relief to turn to medicine of a more congenial kind. The evolution of scientific medicine from the past to the present and to the foreseeable future has in recent years been the subject of many important addresses. I do not propose to go over this wide field again, but will limit myself to a few subjects which I think are worthy of our present consideration. I refer in particular to the comparatively new specialty geriatrics, to an older form of medicine now appearing in a new guise under the name of psychosomatic medicine, and to iatrogenic diseases, for which the doctor is mainly responsible.

Interest in Geriatrics

Medical and social progress in the past 50 years has greatly altered the age-group distribution of the community. The increased expectation of life, together with the general increase in the number of the population, has resulted in a high proportion of people over the age of 65. Population experts estimate that before another 20 years have passed there will be more people in Britain over the age of 65 than under 16.

To cater for this advanced age group, the study of gerontology has become intensified and the practice of geriatrics almost become a specialty. The medical profession must play a larger part in facing the problem of the ageing, which they themselves have helped to create. Geriatrics in a sense is the converse or mirror image of paediatrics, and in certain respects the problems are somewhat similar.

Ageing is an essential part of living, and it does not deserve the reproach that

"When he is forsaken,
Withered and shaken,
What can an old man do but die?"

The medical and general care of the ageing, conducted along skilful lines, can provide a degree of comfort, relief, and happiness far beyond the expectations of our forefathers. Many elderly people are most useful members of the community, and in a social sense their proper care will pay ample dividends by restoring to usefulness some of those who otherwise might become a burden or a charge on their relatives, their families, or the State.

In the main, however, provision for the care of the ageing will be an increasing State responsibility in the form of additional pensions, social security measures, and early retirement allowances. In certain instances institutional treatment and accommodation will have to be provided: here charitable and philanthropic organizations can play an effective part. A large share of these expenses will have to be borne by the younger members of the community who have displaced their older brethren. But the younger generation must not be unduly exploited by its elders. In the struggle for existence youth will be served, and in competition against old age they must inevitably succeed; for

"In the lexicon of youth, which fate reserves
For a bright manhood, there is no such word
As—fail."

At the same time let us not forget the song of the Psalmist, "Cast me not off in the time of my old age; forsake me not when my strength faileth."

Psychosomatic Medicine

There is really nothing new about the concept of psychosomatic medicine, for it is recorded that Socrates informed his countrymen that in one respect the barbarian Thracians were in advance of Greek civilization. For "they knew that the body could not be cured without the mind"; this, he continued, "is the reason why the cure of many diseases is unknown to the physicians of Hellas, because they are ignorant of the whole."

While admitting that there should be no dichotomy between the psyche and the soma in the causation and investigation of disease, there is a danger that enthusiasm for psychosomatic medicine may become exaggerated. One author has gone so far as to state that all medicine will be psychosomatic in the future. Many of us would dread the day if patients were referred to simply as psychosomatics.

We have ample evidence that some symptoms are unrelated to any structural organic changes and, *per contra*, that emotional factors can cause disturbance of bodily functions. Glandular secretions, vascular changes, and the mobility of certain viscera are certainly modified by emotional reactions, but there is no convincing evidence that emotional stress, *per se*, can initiate a disease process, although it may aggravate existing ones. To regard emotion as a major aetiological factor in the causation of disease would belittle the importance of bacterial infection, hormonal imbalance, and structural organic changes. Therapeutics applied on a psychosomatic plane with undue emphasis on the psyche can hardly commend itself as an enduring form of medicine. So, although the psyche and the soma are inseparable components, care must be taken to keep a proper balance and perspective between the two.

Psychosomatic medicine is not a specialty; it is merely a common-sense approach to the investigation and treatment of disease. It belongs mainly to the province of the general practitioner, who is able to assess and readjust any disharmony between the body and the mind in the great majority of his patients. A purely psychosomatic physician must be a *rara avis*, for how few can claim to be highly skilful both in psychiatry and in internal medicine at the same time?

Iatrogenic Disease

The meaning of iatrogenic disease is well exemplified in the pages of Axel Munthe's *Story of San Michele*, in which he wrote that "many were not ill at all, and might never have become so had they not consulted me." It is not sufficiently realized what harm doctors can do by creating the idea of imaginary illnesses in their patients, by injudicious remarks, lack of judgment, or undue emphasis on trivial complaints.

The type of patient who is particularly liable to iatrogenic disease is usually one with a nervous temperament who has an exaggerated or wholly unnecessary anxiety about his health. There are also some patients with a pessimistic

outlook who are susceptible to suggestions of an unfavourable nature. In the less nervous type of patient, anxieties which were previously non-existent may be aroused for which there may be no real justification. Once an anxiety has become fixed it is difficult to undo, particularly when it has been invoked through the instrumentality of the doctor.

The most fruitful source for the inception of iatrogenic disease is undoubtedly in the cardiovascular field. From time immemorial the heart has been the traditional seat of the emotions, so it is not surprising that cardiac neuroses often occur. It is difficult to define the term "cardiac neurosis"; presumably it means an exaggerated state of heart consciousness or anxiety unrelated to reality.

Although a cardiac neurosis is most frequently encountered in patients who have no cardiac disease, it also occurs in patients who have organic heart lesions. Indeed, in this latter contingency it is often of greater importance to treat the associated anxiety state than to concentrate too closely on the underlying organic condition.

The symptoms of a cardiac neurosis are very diverse and multiple, although a single symptom often predominates. Most commonly such patients complain of vague pain in the region of the heart, palpitations, breathlessness, faintness, and fatigue, but on careful analysis all of these symptoms may be inconsistent with actual heart damage.

It is therefore necessary that the doctor should be quite frank and positive in his statements, for uncertainty will never allay apprehension. He should be careful in his remarks about blood pressure, insignificant heart murmurs, and so forth, lest he make a cardiac cripple out of one who is structurally sound. For instance, preoccupation about blood pressure is often a constant source of trepidation with certain patients. The cardiac phobias are so common that Cabot in 1926 expressed the opinion that most heart disease is imaginary, and it is estimated that 40 to 50% of patients who consult a heart specialist are suffering from an exaggerated or unnecessary degree of anxiety about their heart. These phobias are often aroused or intensified by ill-considered or careless statements by the doctor concerning the integrity of a patient's heart.

Another precipitating factor is sudden or dramatic deaths among relatives or friends of the patient, although only a few varieties of heart disease carry with them the risk of sudden death. This was well known to our forefathers, for as far back as 1707 Lancisi wrote his celebrated work, *De Subitaneis Mortibus*, to allay the terror and alarm which had arisen in Rome in 1705 owing to the great number of sudden deaths in that year.

Teaching History of Medicine

While we may stress the recent improvements in medicine, we should not forget how much we owe to the physicians of the past. A great deal more attention should be paid to historical medicine; for, as Sir Henry Cohen has said, "a profession contemptuous of its own history runs grave dangers." Osler stated that by the historical approach alone many problems in medicine can be studied with profit.

Although one hesitates to add any further subjects to an already overloaded curriculum, I would make a special plea for the teaching of the history of medicine to students. This subject could be taught not only in the form of occasional lectures by experts, but more often also during the course of clinical instruction at the bedside.

If items of historical interest are presented in an attractive manner they will tend to enhance the value of the main discourse. It would be quite unnecessary to impose on the student the ritual or embarrassment of an examination in historical medicine; but his interest in the subject could be aroused so as to enable him, if he so wished, to explore a branch of medicine which presents many fascinating facets.

In this field of discovery and investigation one need not necessarily be an accomplished historian—in fact, the

beginner with an inquiring mind can revel in the realms of historical research. For instance, although it is known that Oliver Goldsmith reviewed Auenbrugger's book on percussion, the *Inventum Novum*, in 1761, it would be more intriguing to discover why Rozière de la Chassagne's translation of 1770 was almost completely ignored until rescued from oblivion by Corvisart in 1808. Surely some surgeons would like to know more about the Irish Aesculapius, Diancecht, who treated the chieftain Nuada, whose arm was severed at the battle of Moytura, in Sligo, in ancient times. The emblem of the silver arm of Nuada now forms part of the presidential badge of the Irish Medical Association.

Medical Ethics

Another subject, of far greater importance, is the adequate teaching of medical ethics. Although there is a general code of honour which should govern the conduct of all men, there are special ethical standards which medical men accept and cherish as a necessary part of their calling. Medical ethics forms the foundation of our professional conduct and behaviour in relation to our patients, to the community, and between ourselves. It is not a selfish sort of code; it has primarily been designed for the benefit and protection of our patients.

On taking his degrees the medical student is often unpractised in the niceties of medical ethics because he gets too little instruction on its *modus operandi*. Teachers should bear this constantly in mind, and by example and by precept make the newly qualified man better fitted for the strict observance of basic ethical principles. Under the present-day forms of socialized medicine the traditional doctor-patient relationship is likely to be imperilled, to the detriment of both patient and doctor. There is good reason, therefore, why the teaching of medical ethics should hold a prominent position in moulding the character of the medical student, in whom lies the future integrity and rectitude of the profession.

The Years Ahead

One often wonders if the majority of students ever think in advance what particular branch of medicine they may be destined to follow. During their undergraduate career many students may be impressed by the accomplishment of others and may aspire to follow in their footsteps. Such wishful thinking can seldom be put to practical effect, for, although determination and perseverance may overcome many obstacles, these will not always compensate for lack of opportunity. This should not give rise to discouragement, for it often happens that a person who has ambitions to become a good surgeon turns out to be a better physician; and of course the converse holds equally true.

I have already referred to the idealism to become a good general practitioner, but I think the G.P. should in addition take a selective interest in some particular line of practice. Opportunities to do this often occur, sometimes in gradual stages and sometimes rather suddenly; but in either event he should be ready to meet the call when it comes. Interest in a subject may be aroused or stimulated from apparently trivial causes which, if followed up assiduously, may ultimately lead to a real vocation which hitherto had been dormant. I know of at least one instance where the reading of a single article inspired a doctor to take up a special branch of medicine.

Our younger graduates and undergraduates are so occupied with their academic studies that they have little time to examine the evolutionary changes which are taking place in medicine in the medico-political field. The British and Irish Medical Students Associations are becoming more alive to this problem, but they as yet hardly realize the significance of what is happening. The years ahead are full of perplexities and anxieties, for there is no doubt that medicine has now reached the cross-roads, to follow either the easy path of mediocrity and regimentation or the hard road of individual incentive and striving for perfection. The

choice can lie in only one direction if the profession is to retain an honoured place in the community. The British Medical Association, with its far-flung interests and its considerable influence, is well fitted and equipped to meet any challenge which threatens the rectitude of the profession. With unity of purpose, unshakable confidence, and sound medical statesmanship, success can be assured, for we yield to none in our devotion to our profession. Meanwhile

"Let us, then, be up and doing.
With a heart for any fate;
Still achieving, still pursuing,
Learn to labour and to wait."

FAILURE OF AN ANTIHISTAMINE DRUG TO INFLUENCE THE COURSE OF EXPERIMENTAL HUMAN BURNS

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In the *British Medical Journal* of July and August, 1951, a correspondence took place on the value of antihistamine drugs in the treatment of burns (Milne, Balfour, and Yeoman, 1951; Shubsachs, 1951; MacPherson, 1951; Levine, 1951; Slack, Boesen, and Husain, 1951; Laborit, 1951). Some of the writers gave the drugs by mouth, others as local applications in the form of creams. The favourable effects claimed included the relief of pain within a few hours of burning, the prevention or reduction of blistering and oedema, the prevention or reduction of infection of the burns, and an increase in their rate of healing.

If these claims are correct, antihistamine drugs should play an important part in the treatment of burns. However, we questioned their validity, since it had previously been demonstrated in this laboratory that various drugs used to protect guinea-pigs against the action of histamine had no detectable effect on experimental burns of various degrees of severity. The changes investigated in the guinea-pigs included erythema; capillary permeability; qualitative blood-flow changes in the skin, including stagnation and stasis of the blood flow; the clinical degree of oedema formation; skin sensibility; and the subsequent clinical courses of the burns (Sevitt, 1949a). Similarly, Weeks and Gunnar (1949), using rabbits, showed that pyribenzamine hydrochloride failed to alter either the increase of capillary permeability or the histological inflammatory picture after burning, although they claimed a reduction in the area of the post-burn erythema.

Nevertheless, negative results with animals do not rule out the possibility that antihistamine drugs may influence the course of human burns. We decided, therefore, to experiment on a group of human volunteers, each of whom would receive burns of the same

severity and half of whom would take an antihistamine drug. By carefully observing the changes taking place in the burns, using clinical, photographic, and other methods, any significant differences between the two groups, such as those claimed in the *Journal* correspondence, should be noted. No such differences were found.

The Experiment

Burning.—Each of eight healthy male volunteers (aged between 27 and 41 years) received two small circular burns on the lateral surface of the left upper arm over the triceps muscle. The burns were spaced about 2 in. (5 cm.) apart, one above the other. They were inflicted by applying, with moderate pressure, the heated surface of a constant-temperature burning-iron on to the skin, which had been shaved the previous day. The iron was essentially a hollow brass cylinder closed at one end, which was the burning surface; it was similar to that previously described (Sevitt, 1949b) except that the burning surface was $\frac{1}{2}$ in. (1.3 cm.) in diameter. A current of hot water, the temperature of which could be regulated and recorded, circulated through the iron. During burning the temperature of the iron was maintained at 60° C. and each period of application was 15 seconds. The temperature and duration of burning were selected on the basis of previous experience to give partial skin-loss burns (Bull, unpublished observations; Sevitt, 1949b). In this way two small circular burns of the same severity were inflicted on similar sites on each of eight volunteers.

Analgesia.—A few minutes before burning, the outline of a diamond-shaped area of skin on the outer surface of the upper arm was infiltrated with 1% procaine (without adrenaline), using about 25 ml. of solution for each person. By this means an area of anaesthetic or nearly anaesthetic skin was produced on which the burns were inflicted. Each subject found that the burning produced a little discomfort, particularly during the infliction of the lower burn.

Antazoline and Dummy Tablets.—The antihistamine drug used was antazoline (2-phenyl-benzyl-aminomethyl-imidazoline methane hydrochloride; "antistin"). This was chosen because it is readily available to the medical profession, has an efficient antihistamine action, and produces minimal side-effects. Antazoline (100 mg.) and dummy tablets were obtained in eight bottles, numbered 1 to 8, each containing 40 tablets. Four of the bottles contained antazoline and the others dummy tablets. The latter were similar in size, colour, shape, and taste to the former, but contained no antihistamine drug.* No one taking part in the experiment knew which of the bottles contained the antazoline tablets, and the bottles were allocated to the eight volunteers (which included the authors) by the drawing of numbered lots. In this way an attempt was made to avoid bias in the observations. Fourteen days after burning, when the main observations were completed, the key to the identity of the tablets was obtained from the manufacturers. The tablets were taken by mouth, the first one immediately after burning. The dosage was four tablets on the day of burning, and thereafter one tablet three times a day for the next eight days.

Confirmation of Antihistamine Action.—Skin histamine tests were performed on the seventh day, when the tablets were being taken, and on the twelfth day, three days after stopping the tablets. The tests were performed by pricking histamine acid phosphate, 1 g.% and 0.1 g.% into the skin (Squire, 1950). Two pricks through each dilution were made on each forearm. The diameters of the wheals and flares produced were measured, and, by comparing the measurements obtained on the two occasions, three of the four subjects taking antazoline and three of the four con-

*We are informed that the composition of the dummy tablets was: quinine sulphate, 2.68 mg., lactose, 53.6 mg., starch, 83.6 mg., talc, 8.04 mg., and gelatin, 2.08 mg.