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HYGIENE AS A WORLD FORCE[1]

MY first and pleasing duty is to thank most heartily and sincerely the authorities of the Johns Hopkins University for the great honor they have done me in asking me to be present here to-day and to deliver an address upon such an auspicious and important occasion. It would have been very easy for them to find on this side of the Atlantic some one well fitted to perform the task and far more in touch with the great march of public health in the United States than I am; some one also with a more extensive knowledge of hygiene as now practiced and developed in countries with temperate climates, for many years of my working life were spent in a land where public health work was in its infancy. It is only since taking up residence in England, and especially since my association with that undertaking which, in large measures, owes its inception and progress to the beneficent generosity of the Rockefeller Foundation, that I have had opportunities of becoming intimately acquainted with those modern movements which have wrought so great a change in the domain of state medicine.

A study of hygiene in England, and particularly of the history of hygiene, has, however, shown me why, in all probability, those responsible desired to have a speaker from that country. England is undoubtedly the cradle of modern hygiene, that is to say, it was in England that the principles and practices of hygiene were first properly developed and placed on a sound administrative basis. Thus other nations have acquired the habit of looking upon England as a leader in the great campaign against disease and death. This habit, flattering to the old country, and the term "old country" includes Scotland, Ireland and Wales, was undoubtedly justifiable in the early days of public health, and I trust may still be looked upon as wise and salutary, even though the old country has now much to learn from other lands, more especially from this great and wealthy republic of the west. On the other side of the Atlantic we are perhaps a little apt to forget that, in the historic sense, America has public health traditions of considerable antiquity and that, if England is a cradle

[1] Address delivered at the fiftieth anniversary celebration of the Johns Hopkins University, at the exercises commemorating the opening of the new building of the School of Hygiene and Public Health, on October 22, 1926.

of hygiene, the United States is indubitably a baby's cot.

It could not well be otherwise.

Long ago New York was Dutch, and the stout burghers from Holland reached the New World with a tradition behind them, the great tradition of personal and domestic cleanliness. Many of you must have read Charles Reade's "The Cloister and the Hearth," that wonderful and classic picture of the Middle Ages. If so, you may remember this passage which he penned when describing the humble home of Eli and Catherine at Tergou:

> The Hollanders were always an original and leading people. They claim to have invented printing, oil-painting, liberty, banking, gardening, etc. Above all, years before my tale [and the date of his tale is the latter part of the fifteenth century] they invented cleanliness. So while the English gentry, in velvet jerkins and chicken-toed shoes, trode floors of stale rushes, foul receptacle of bones, decomposing morsels, spittle, dogs' eggs and all abominations, this hosier's sitting-room at Tergou was floored with Dutch tiles, so highly glazed and constantly washed that you could eat off them.

The Dutch who settled in New York doubtless practiced those habits of cleanliness in which they had been reared and their influence can not have wholly vanished even when New York, foul, crowded and unhealthy, had become "The City that Was," so graphically portrayed by Dr. Stephen Smith. The leaven of the Dutch, however, did not suffice to leaven the whole mass, that polyglot and heterogeneous mass of people who made a great part of the island city a veritable fever nest. Personal cleanliness and cleanliness of the home meant much, but hygiene became a living force only when it extended from the individual to the community, from the home to the municipality, when it became an affair of government, both local and central, and when the aid and majesty of the law were invoked on its behalf. Strange to say, of late years the pendulum has swung back in the old direction and environment, at one time all-important, is now seen in its proper perspective while the health of the individual from the stage of the embryo to that of old age has become a matter of primary importance to the state and to all who have the well-being of mankind at heart. Public health, as well defined by Professor Winslow, of Yale, is "the science and the art of preventing disease, prolonging life and promoting physical health and efficiency through organized community efforts for the sanitation of the environment, the control of community infections, the education of the individual in principles of personal hygiene, the organization of medical and nursing service for the early diagnosis and preventive treatment of disease, and the development of the social machinery which will ensure to every individual in the community a standard of living adequate for the maintenance of health." To-day, however, in the brief space available, I wish to consider another aspect of hygiene, its rôle as a world force, as one of the great factors which have influenced human life and activity and as possibly the greatest factor which will influence man's progress in the future. To do so, it is necessary to institute a few comparisons. Let us then consider very shortly those forces which have moulded man.

We need, I think, say little about the elemental passions, about love and hate, even though both have exercised a profound influence on the world's history. There have been great loves, like that of Caesar and of Anthony for Cleopatra, which have changed that history, for, as Byron has it,

> What lost a world and bade a hero fly?
> The timid tear in Cleopatra's eye,

but for the 'οι πολλοί it is possible that the influence of the mischievous god, Cupid, is best expressed in the homely Scottish couplet:

> Love, love, love, it is a dizziness,
> It winna let a plain body gang aboot his business.

Yet Cupid's arrow misses not a few, and other forms of affection give men, women, ay and even children, the go-by, while hygiene is all-embracing. Even when the world was young the cave-woman, probably as a result of fear rather than of love, cleared the cave-man's cave of bones and debris; the ruins of the most ancient civilizations have their midden heaps; there are certain hygienic activities common to every age and clime.

Hate has changed the world's destinies most surely when it has been a case of "Cry Havoc! and let slip the dogs of war." It is in the form of war that hate is best contrasted with hygiene, for, as will be shown, the latter is a power for peace, perhaps the greatest power of the present day. Greed, vanity and ambition have played a part in moulding the destinies of man. We recall Lot's fatal choice and all that came of it, but it is desirable to contrast great things with great and so, without more ado, let us compare hygiene and religion.

The delicacy of this exercise is apparent, particularly in a country like the United States, which, though it be a birthplace of new creeds, is very especially the home of the old Christian orthodoxy. Let us, however, in the first place be quite clear in our minds as to what we mean by the term "religion." There is indubitably a religion in the abstract, as it were, religion, once defined to me by a leading scientist with a reverent mind as "a system of conduct

colored by emotion." If this be admitted, it is evident that it would be useless to try and contrast its effects on mankind with those of hygiene. The two are inextricably mingled. Indeed, to employ another of the scientist's definitions, "hygiene is a system of scientific conduct colored by the emotion of love." Note how the expressions approximate. Presumably the inspiration responsible for the evolution of each was and is derived from the same source, whatever that source may be. While this view will presumably find favor, except in the case of the stern materialist, we must, I think, guard against subscribing to a statement sometimes made: "You can not fittingly or justly compare hygiene and religion. The one deals with the physical, the other with the spiritual side of man." I venture to think that such an argument is not valid. Even the spiritualists know little of the soul, but, presumably, intangible though it be, it is associated in some way with the mind and the activities of the higher nervous centers. Now there is a hygiene of the mind as well as of the body. Indeed, we are only now realizing the immense importance of this mental hygiene. It is true that great souls have lived in feeble and diseased bodies, but in such cases we have to ask ourselves if these souls might not have been yet greater had their fleshly tenements been sound. Possibly not, for suffering may refine and elevate but, after all, we have to deal with the common run of men and women, and there can be no doubt that bodily and mental health should go together and that hygiene, to be wholly successful, must take stock of the nebulous functions of the golden bowl as well as of the physical state of the silver cord, the windows, the grinders, the pitcher at the fountain, the wheel at the cistern, and all that goes to make up the earthly habitation of the spirit of man. It is at least possible that the fine spirit displayed in Great Britain at the time of the great strike was largely due to the fact that, taken as a whole, the population was healthy in mind and body. The sick baby is fretful and peevish, and a nation with a large proportion of chronic invalids is unlikely to face a crisis with equanimity or exhibit that patience and good nature which were such marked features during the recent upset.

While, as indicated, any general comparison of religion in the abstract with hygiene also in the abstract would serve no good purpose and would, in fact, be a work of supererogation, I can not, if I am to consider my subject fully and faithfully, refrain from contrasting the influence of applied hygiene with that of the application of religious principles in human life and work; in other words, with organized religion, whether such takes the form of Christianity, Judaism, Mohammedanism, Buddhism, the faith of Confucius or any of the other creeds which have helped man along the thorny path of existence and guided him, in some measure, through its trials and difficulties. The practice of these beliefs has, of course, had a profound influence upon the world. Reverting, however, for a moment to the original idea of religion, an instinct which, like that of hygiene, has, as Sir Arthur Keith put it the other day, been implanted in man at some stage of his evolution, I think it possible that the hygiene instinct, apparent in some animals be it noted, preceded the religious instinct and that, even at the present time, the influence of the former is more universal. There are many to whom religion makes no appeal, there are a few races of mankind which appear to be wholly devoid of any religious instinct, but even the most primitive, the most debased, practise certain laws of health. These are essential for life and procreation, and the two ideas which dominate every type of man are those which control the animal world of which he is a part: love of life and the desire for reproduction.

Turning again to our main theme, religion as applied by man with all his faults and foibles and the science of hygiene as similarly applied, it is instructive to note that some forms of religion had, and still have, a hygienic basis. Rites of purity and certain forms of exercise are, to this day, closely associated with religious observances. Both Moses and Mahomet were hygienists of no mean order. The best features of some faiths are those which relate to the care of the body and the prevention of disease. In India the great system of caste following the institutes of Vishnu and the code of Manu brought the teeming millions of the peninsula some measure of sanitary salvation, while the creeds themselves did little to raise or elevate the masses.

Most of the great religions have been productive of wars and strife. Did not the Founder of Christianity declare that He came to bring a sword rather than peace into the world, and has not history, time and again, confirmed the truth of this prophecy? He foresaw how far short of His precepts His disciples would fall.

In the hands of man religion, playing the part of a world force, has unhappily often produced turmoil and bloodshed. On the other hand, hygiene as a world force is, as I have said, a power for peace. Health and its promotion are subjects which sensible men—I say sensible, for we must exclude cranks—can discuss without acerbity and bitterness. I venture to think that the health section of the League of Nations is likely to prove the most constructive and most successful part of the great Geneva organization designed to precipitate the millennium. The green-eyed monster

is apt to obtrude itself into most human affairs, but, in the case of public health work and propaganda, jealousy takes the form of a healthy rivalry. You may envy your neighbor's health record, but there is no sense in being jealous of him because his infantile mortality rate is much lower than yours. The revelation merely stimulates you to further effort, and it is almost inconceivable that nations should go to war in the race to be the fittest, as they do when it is a question of riches or power or *amour propre* or (in the old days) religion or self-defense. Yet curiously enough this fitness brings wealth and perhaps power with it and is a very excellent form of self-protection. I am quite sure that, if the International Health Board of the Rockefeller Foundation had not the word "health" in its title, its manifold activities would never have been received with complacency and gratitude by countries not owing allegiance to the Stars and Stripes. That word "health" is a talisman which can successfully unlock many a foreign door.

It is true that, in certain directions, organized religion has played a part comparable to that of hygiene in moulding man's destinies, though it is also true that at times it has been the bitter foe of progress and enlightenment.

Taking Christianity, we know that, throughout the dark Middle Ages, it here and there kept alight the torch of knowledge. We recall the stimulus to thought and inquiry engendered by the Reformation in Europe, but, as a rule, when it has signally influenced progress, the effect has been due rather to a spiritual movement as, for example, the awakening of a spirit of sympathy with the sick and, as Dr. Welch has pointed out, the development of that new humanity which paved the way for the work of the sanitary reformers in England, rather than any deliberate campaign by a religious body. Religious organizations were in being in various parts of the world for many hundreds or thousands of years without any serious attention being paid towards the betterment of life and working conditions, the curse of slavery and the slave trade, the great question of maternity and child welfare, the prevention and cure of venereal disorders along rational lines, the safeguarding of food, and all those activities with which we are to-day familiar, in which fortunately some organized religions now participate.

It is true, as already stated, that Judaism, the creed of Mahomet and certain other faiths did lay stress on the practice of preventive medicine, but it seems to me that none can equal in this or other fields what hygiene has accomplished in a remarkably short space of time, achievements which have wrought amazing changes in many parts of the globe and brought about a veritable revolution. It is too much to expect that organized religion could conquer disease. That is not its province. The ancient faith of China did nothing to alleviate the myriad plagues of that vast territory; all the creeds of India, amongst them Buddhism, which possesses much that is attractive, failed to show how cholera could be mastered and malaria subdued. Christianity, with all its virtues, for hundreds of years coexisted with a great burden of communicable maladies. It was not until, in the fullness of time, scientific knowledge was applied to the prevention of disease that we gained our freedom from the fear of smallpox and of typhus and that you Americans were able to sweep yellow fever out of the New World. And yet it is hardly worth while pursuing this intricate, if interesting, argument, for it must be evident that hygiene has become a world force of the first magnitude, because it is, in very truth, a form of religion itself.

The old, wise Greeks knew what they were about when they worshipped the goddess Hygeia and made her votive offerings. I am inclined to think that in some countries, such as India, hygiene will never exercise its full sway unless it comes to the people in the form of a religion, a new revelation to save and succor a vast multitude, the prey of superstition and disease. I believe that to-day you are opening and consecrating not a school only but a temple, a shrine with infinite possibilities.

It is interesting, if somewhat saddening, to think that, leaving the ancients out of the question and pioneers like Mead and Jenner, the credit for initiating the campaign which has had such remarkable results is due neither to the votaries of religion nor those of medicine, for it was a layman and a lawyer, Edwin Chadwick, a pupil of the philosopher, Jeremy Bentham, who, as Sir William Collins said, had visions of a time when "doctors would be unable to live, yet perhaps unable to die," and who devoted all his time and gifts and energies to the realization of this ideal. Similarly, in the United States it was Lemuel Shattuck, who was neither a divine nor a physician, but a student of social problems, who played the part of a pioneer.

There are, I think, three other factors which may be termed world forces, and with which hygiene may, nay must, be compared. These are the pursuit of pleasure, the pursuit of wealth and the pursuit of knowledge. All these, though in very different ways, have exerted a great influence on man and his affairs. No one, however, would place either the pursuit of pleasure or the pursuit of wealth in the same class with hygiene as a controlling force in human destiny. In the one case there come to the mind the famous picture of the gay and giddy throng pursuing gaily

the flower-wreathed figure of an elusive female and the verse of Scotland's greatest poet:

> But pleasures are like poppies spread,
> You seize the flower, the bloom is shed.

And in the other we recall Goldsmith's lines:

> Ill fares the land, to hastening ills a prey,
> Where wealth accumulates and men decay.

The influence of both these pursuits is evanescent compared with that of hygiene and too often is not in the direction of progress and true comfort.

The pursuit of knowledge is in a different category. It has been a great and cardinal force and might well contend with hygiene as a benefactor of mankind were it not that the art and science of hygiene have arisen from this pursuit and that hygiene, being the application of knowledge to man's needs, has outstripped it. The pursuit of food, at the call of hunger, has from the beginning been a world force, but, inasmuch as it is, in certain directions, a hygienic activity, it need scarcely come into our comparative list.

Sufficient has, perhaps, been said to indicate how wide and far-reaching is the sovereignty of hygiene, a dominion to which the limits have not yet been set and which will undoubtedly make its presence felt in many countries where to-day man grovels in filth and is a prey to pestilence, the while it extends and strengthens its position in those lands where its future is assured. As one of your writers has well said, "throughout the tangled web of our civilization, the threads of sanitary science run in increasing numbers."

And now let us see how, at the present time, hygiene acts as a world force. It does so in various ways. One is by the great system of quarantine, with its stations scattered over the globe and its control of ships and shipping. In the light of what I said previously, it is surely of interest to note that the first quarantine act was passed by the General Assembly of Pennsylvania in 1700 and was quaintly entitled "An Act to Prevent Sickly Vessels coming into this Government." Hygiene has always had a close association with the sea and ships. It has abolished two great sea scourges, scurvy and ship beriberi; it has radically changed life afloat, so far as navies are concerned; and now, at long last, it has commenced to take the merchant seaman under its wing. In this respect I must sorrowfully confess that the American mercantile marine is ahead of that of Great Britain. Speaking generally, you house and feed your sailors better than we do. This is a reproach we, an old seafaring nation, are now taking steps to wipe out, and if only the control can pass from the board of trade to the ministry of health, much may be accomplished. Let us hope so. No finer man exists than the British sailor, and he deserves well of his country and merits a consideration which in the past he has not received.

Most unprejudiced persons will, I think, admit that, taken all in all, the British empire has been a power for good in the world. At any rate, it helped to create the United States of America, and that is something to its credit! At the same time, its sons, throughout the long years, have done much to make hygiene a world force. The traditions of the homeland have been carried overseas, and some of the great dominions, favored perhaps by local conditions, have, in certain directions, progressed further than the mother country. New Zealand has the lowest infantile mortality in the world; Australia has probably the most complete and best organized quarantine system on the face of the globe; South Africa has done more to prevent and stamp out disease amongst miners than has any other land; Canada, closely in touch with the vast public health developments in the United States, has in some ways more than held its own. For example, I believe the milk supply of Toronto, under the fostering care of Dr. Charles Hastings, will compare favorably with that of any other city. The Indian empire, with its fine record of research in tropical medicine and hygiene, a record reaching back more than a century and containing the crowning triumph of Sir Ronald Ross, based on the reasoning of Sir Patrick Manson, has, it is true, failed to apply, as it might have done, all the lessons that research has taught, but its task is a stupendous one. It is something to have furnished great cities like Calcutta and Bombay with active sanitary organizations, to hold cholera in check, to grapple successfully with leprosy, to indicate the method whereby kala-azar may be controlled, to rob enteric fever of its terrors, to alter the whole outlook as regards amoebic dysentery and liver abscess, to cope manfully with the grim specter of famine. In Malaya Sir Malcolm Watson and others have accomplished a great work in reducing malaria and rendering estate labor healthy. Hong-Kong has changed from a pestiferous hole to a comparatively healthy seaport. Singapore and Colombo have carried out important sewage and water works and taken elaborate steps to guard themselves against imported infection. In Palestine a veritable revolution has been effected since the war, and there is not a single branch of the huge subject of public health which has not received some attention there at the hands of a small but devoted band of workers.

As a member of the Advisory Medical and Sanitary Committee at the Colonial Office, I am kept in touch with public health developments in all parts of Bri-

tain's far-flung possessions, and with none more than tropical Africa. The east coast of the Dark Continent from Uganda and Kenya in the north to the Rhodesias in the south has been the scene of active operations, and I would cite especially the campaign against syphilis in Uganda, that against yaws in Kenya, the war on the tsetse fly which is being waged in Tanganyika, and the determined attack on malaria and blackwater fever in Southern Rhodesia. On the West Coast, once the white man's grave, a great change has taken place and, though there is much yet to be accomplished, notably in the case of yellow fever, where valuable help is at present being rendered by American experts, life is now very different, both for the white man and the black, all the way from the Gambia to Southern Nigeria, than it was when that intrepid woman, Mary Kingsley, sent out her clarion call for action. There remains the Anglo-Egyptian Sudan, a greatly changed territory now to what it was in the days of the Mahdi and the Khalifa, when disease contended with the sword, the spear and the kurbash, to destroy life and render the natives wretched and hopeless.

Turning to the New World, the British record is not so good, but we can point with some satisfaction to important advances in British Guiana and with a reasonable pride to what has been done in Port of Spain, while here and there elsewhere the torch of hygiene has been kept alight even if it glows but dully.

France, ever to the fore in questions scientific, has greatly ameliorated conditions in the vast territories under the tricolor. Her work on malaria in northern Africa has been remarkable; in French equatoria sleeping sickness has been relentlessly pursued; in Madagascar plague has been combated to good effect, while in French Indo-China much has been done in the way of safeguarding the public health. The Dutch, with a passion for cleanliness bred in their bones, have displayed qualities of great thoroughness and persistence in coping with difficult situations in Java and Sumatra. The way they have tackled plague is an example for other countries to follow, they have solved important problems relating to the manufacture of vaccine lymph in the tropics and, recognizing that hygiene pays and pays handsomely, they have spent great sums in improving the housing and living conditions of the coolies on their fine rubber and cinchona estates. In their curious little West Indian Island, Curaçao, I once spent quite a long time trying to find a dirty place. I discovered one at last hard by a Negro cabin but, in some other colonies I know, it would have been accounted a comparatively cleanly spot!

The Germans have been shorn of their overseas possessions, but German influence and work continue to keep hygiene a world force and to increase its efficiency, more especially perhaps by shedding fresh light on the various sciences upon which hygiene and sanitation are securely based. Belgium is busy, both at home, where her campaign against venereal diseases attracts special attention, and in that vast Congo region, so long inaccessible and full of terror for the white man; now a country where much scientific work is being carried out on preventive lines, notably in the case of sleeping sickness and tuberculosis. Italy, where the renaissance of learning had its birth, has contributed greatly towards the common cause. The early work there on malaria has had its repercussion in many parts of the world and, in such colonies as she possesses, Italy does not forget Emerson's maxim, "The first wealth is health." Other examples from the Old World might be cited, for the activities of Japan have not been confined to the Archipelago of the Far East, and Japan can certainly claim a place in disseminating the principles and practice of hygiene, but it is time to cross the Atlantic or Pacific and see where America stands.

I said little in the way of comparing war and hygiene. In many respects they are as the poles apart, but let it not be forgotten that war has its constructive as well as its destructive side. There is no doubt hygiene is the greater and more beneficent force, but some of the most valuable advances in hygiene may be traced to war. Consider how campaign after campaign in Europe combined to give us the wisdom of that great army physician, Sir John Pringle.

Moreover, it was war, war with Spain, which led the United States to spread abroad the knowledge and experience of public health measures it had gained and garnered since the days of Shattuck, to plunge abroad into research with a view to prevention, to embark upon a policy which has had far-reaching results. Reed and his colleagues in Cuba penetrated the mystery which had shrouded yellow fever for centuries and Gorgas applied the new knowledge. In the Philippines and Porto Rico a hopeful gospel was preached and hygiene became a factor of paramount importance. Then followed Panama with all its wonders and triumphs and now the good work has been extended to Haiti.

With a few exceptions, all the cases I have cited are examples of countries busy in their own possessions, sometimes forced by circumstances to support the cause of hygiene, sometimes wise enough to see that such support is profitable, sometimes no doubt influenced by feelings of compassion and a desire to do the right thing.

But hygiene has been given an opportunity of showing itself as a world force in quite another manner,

and this is perhaps the most startling and interesting and impressive development mankind has ever witnessed. Never before has altruism played such a part in hygienic progress, for never before has colossal wealth been turned to so beneficent an object. When John D. Rockefeller placed his millions at the disposal of the International Health Board of the Foundation bearing his name he made that board a power for good, a world power with amazing possibilities before it. Some of the possibilities have already been realized. Yellow fever, the scourge of tropical America and one which formerly took terrible toll on your eastern and southern seaboard, has been well-nigh exterminated. It has also been attacked in West Africa and there is more than a reasonable hope that in the next few years it will be as extinct as the dodo. Think what this means! A most malignant and widespread disease which used to cause thousands upon thousands of deaths, occasioned untold sorrow and misery and a vast loss of money and time, stamped out of the world —possibly forever. Even if it is not blotted out forever, it has been so reduced and controlled as no longer to be an international danger. What an achievement, especially when one considers that it is other countries, not the United States, which have chiefly benefited! Again, take the hookworm campaigns set on foot in various parts of the globe; not so dramatic as the yellow fever work, but far more extensive. The war on the ankylostome has already worked wonders in certain places and, if only properly followed up, will make an enormous difference to labor in the tropics and incidentally will greatly diminish the evils of soil pollution. I have no time to tell you of all the other ways in which the International Health Board is proving hygiene to be a world force of the first magnitude. Is the story, I might say the romance, not told in its annual reports and in countless reports in various languages issued by governments and institutions which have experienced the touch of the magic wand? Were I to enlarge upon the subject I should call attention to another international organization which has been aided by the Rockefeller Foundation and which is also demonstrating in a remarkable manner how hygiene may sway the destinies of nations and be a power for peace. Need I say that I refer to the health organization of the League of Nations, the health section of which, under the guidance of its restless, enterprising and far-seeing medical director, Dr. Ludwik Rajchman, is becoming a friendly, if comparatively humble, rival of the International Health Board and is extending its activities far and wide. The parent organization is now a very important body which certainly looks upon hygiene from the widest aspect and seeks to increase its scope and intensify its undertakings. This it does by means of its advisory council, represented by the Permanent Committee of the Office Internationale d'Hygiène Publique at Paris, a committee on which both Great Britain and the United States are represented, its health committee with its various commissions, and its health section, to which I have just alluded. When one looks through the long list of their activities comprising education, work on malaria and cancer, inquiries into tuberculosis, smallpox, anthrax and African sleeping sickness, the standardization of sera and other products, an opium commission and a commission for the Far East, one recognizes not only how much is being done, but how much has yet to be accomplished.

We are reminded of this by what took place not so long ago at the Infant Welfare Center of Kuala Lumpur in the Federated Malay States, where they are very particular in impressing upon the mothers the necessity of giving their babies a daily bath. The mothers are usually recalcitrant. They don't like undressing the infants, and above all they will not remove charms with which they are usually bedecked. Enter a Chinese mother with a fine but dirty babe. She was persuaded to remove the clothes but not a charm the child was wearing, for she maintained that this charm, which had been hung round the baby's neck by a neighbor, had saved its life when it was sick unto death. On examination the charm proved to be a dog license, bearing the inscription "1915. Selangor, one dog 1,669."

Surely, however, the outlook is hopeful with powerful organizations on either side of the Atlantic exemplifying a new spirit of international cooperation and control!

I would conclude by conjuring up a few concrete examples of how hygiene, by benefiting the human race, is fit to rank with, and in some ways above, all those other powers which have determined and still determine the fate of mankind. In the Bible story one record which appeals to all, which never fails of its effect, is that which recounts how the blind received their sight. There is something in the helplessness of the blind, in their sad and hopeless lot which must excite compassion. I wonder if you know a poem by Alfred Noyes entitled "Spring and the Blind Children," written after he had seen a school of blind children on a country walk. Here are two verses from it:

> They passed the primrose glistening in its dew,
> With empty hands they drifted down the lane,
> As though, for them, the Spring held nothing new;
> And not one face was turned to look again.
>
> Like tiny ghosts along their woodland aisle
> They stole. They did not leap or dance or run,
> Only at times without a word or smile
> Their small blind faces lifted to the sun.

Is it not pitiable, and yet it is far more pitiable to think that the great majority of blind children need never be blind, and it is a fine and glorious thing to think that, at the present moment, preventive medicine is warding off blindness in thousands of cases. Ophthalmia neonatorum, the blindness of the newborn, can be easily guarded against, that of measles, which it would seem is by no means negligible, can be and should be prevented, as indeed can measles itself. In Egypt and in China, lands of flies and filth, devoted disciples of Hygeia are combating trachoma and other conditions leading to loss of sight. Yet listen to this poignant passage from a paper by Major W. R. Dear, of the Medical Corps of the United States Army, on trachoma in Russia:

> What of the thousands and thousands of untreated trachomatous Chouvashes in their poverty-stricken little autonomous Soviet Republic along the south bank of the Volga!
>
> They are there: neglected, untreated, blundering along the dusty roads of Summer, blinking at the dazzling whiteness of the glittering snowy plains in Winter, or sitting patiently on the door-step of the log-houses called home, and waiting—for what?—for the disease, trachoma, to gallop along its fiery path, searing, scarring and occluding until the course is run. And the world civilization as we know it, in this enlightened twentieth century, with its developed altruistic and humanitarian elements, will, because of certain fundamental differences of opinion between the Soviet Government and other nations, permit those thousands upon thousands to pass from the sunshine of life into the twilight of dim vision, and on into the deep blackness and despair of total blindness.

Is not that a ghastly picture, and is it not better to prevent blindness than to try and cure it, especially when we know that in most cases it can not be cured, for the age of miracles is past?

And yet is it? Think of what sunlight and artificial sunlight have done for miserable children, riddled with or deformed by tubercle, consider all that proper feeding can accomplish in rickets, remember how malaria, yellow fever, dengue and filariasis can now be met and mastered in terms of the mosquito. Reflect upon the way death-rates have come tumbling down and general morbidity rates have fallen. Recall the fact that in 1855 the expectancy of life in the U. S. A. at birth was forty years, while now it is fifty-eight.

And so on and so forth. It would take hours to recount the triumphs of hygiene, but, viewing them all, render thanks in this country to men like Shattuck, Sedgwick and Herman Biggs; Trudeau, Reed, Gorgas and Carter, who have passed away; Chapin, Edsall, Rosenau, Vaughan, Howell, Vincent, Russell and, most beloved of all and the best known, William Welch, who happily are still with you, along with many others too numerous to mention who have fought the good fight and seen the works of their hands established upon them.

And what of the future? These men had not the facilities you are providing for the students of to-day. They had no schools of hygiene. In large measure they had to learn the lesson in that best of all schools, the school of experience. Yet it can not be doubted that your young men will now start upon their careers better equipped than were their predecessors. Their enthusiasm can be aroused, their imaginations quickened by what they hear and do in this new school at Baltimore, and the very sight of a magnificent building devoted wholly to the teaching of preventive medicine should impress upon them the importance of safeguarding the public health, should convince them that hygiene is indeed a world force. Let us hope that with such an Alma Mater the men of the future will emulate, and not only emulate, but surpass those who have led the way. The Johns Hopkins University has a splendid record of fifty years of effort, while not less notable is the record of its School of Medicine and of the hospital covering three to four decades, much of it under the inspiration of the revered Osler, for the good of humanity and the advancement of medical science. When another fifty years have passed, there can be no doubt that the school whose opening you are commemorating to-day and dedicating to Hygeia will also possess a record of which it can be proud, which will redound to the credit of those who guided its early destinies, and, what is far better, will demonstrate conclusively the power of modern and scientific hygiene in the prevention of sickness and death and in the alleviation of many of the sorrows of mankind.

ANDREW BALFOUR

LONDON SCHOOL OF HYGIENE
AND TROPICAL MEDICINE

ARRANGEMENTS FOR THE PHILADELPHIA MEETING OF THE AMERICAN ASSOCIATION

HOTEL ARRANGEMENTS

AT the approaching fifth Philadelphia meeting, which will occur at the University of Pennsylvania, from December 27, 1926, to January 1, 1927, the Bellevue-Stratford Hotel, one of the finest hotels in Philadelphia, will be general headquarters and many of the officers of the association, as well as others, will have rooms at that place. The numerous scientific societies that are meeting with the association this year will in many cases have their own headquarters