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EDITOR
A.V. RAMAN



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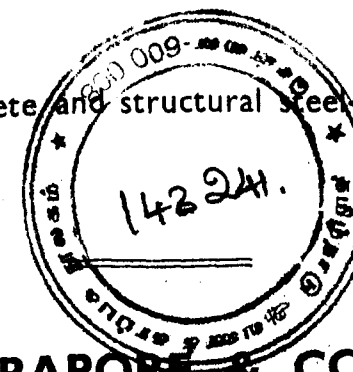
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Madras-14,
28-1-'51.

Manager,
"People's Health".

PEOPLE'S HEALTH

A Pioneer in the Field of
Public Health

Vol. V JANUARY, 1951 No. 4

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WINDOW DRESSING!



Poor Finance does not admit of LIQUIDATION of our slums—much less of ALL of them. Hence, it is proposed to provide some amenities in ALL the Slums—News item.



Vol. V No. 4

JANUARY, 1951.

Issued Monthly

EDITORIAL . . .

Unhealthy areas which have grown up under conditions extending over long periods cannot be dealt with satisfactorily by any one panacea. All available powers must be utilized, and methods must be adapted to suit different circumstances.

—Mr. Neville Chamberlain's
Unhealthy Areas Committee.

"SLUM MIND"

The slum problem can never be solved, by persistently tinkering with it, and that too, half heartedly. This desperate disease will respond only to desperate remedies. The latest move of the Corporation of Madras, with the concurrence of the Madras Ministry, shows how they propose to throw away large funds in the name of improving the slums. The Commissioner of the Corporation is reported to have told the City Council that, for financial reasons, it would be impossible to deal with all the slums and hence, with the limited finance available, he proposed to give certain amenities to all the slum dwellers.

An instance which bring out prominently the ill-thought out scheme of improving the slums is the Cox's Chery in the City of Madras. The design of the building is far from satisfactory. It does not take into account the elementary requirements of health and sanitation, much less the family life of

our people. Any public health authority would condemn the building. Any man who has some sanctity for family life and its tradition would refuse to occupy the building. And above all, the rent of the building reared would be far beyond the means of those who are dispossessed of their dwellings. In fact, what was originally intended for housing those who are dispossessed of their dwellings, is now intended to be let out to the lower middle class people on a rent of Rs. 40 to 50 a month!

The principle of raising a loan for an improvement of this nature is commendable; but the way in which the loan so raised is proposed to be spent, is depressing.

The narrowest bottleneck in the improvement of a city is the procedure laid down under the Land Acquisition Act—an ancient Act which was put in the Statute Book by a foreign government which was more keen to protect

the interests of the landed aristocracy than to serve public interests. This Act should be repealed forthwith and a new enactment passed empowering the States' governments to take possession of lands required for public purposes without any let or hindrance and leaving the question of compensation to be decided by a special tribunal consisting of honest technical men conversant with the valuation of real properties.

Special provision should also be made in the new enactment to limit the com-

pensation of notified slums to a nominal sum of a rupee.

Further, what constitutes a slum should be clearly defined by the statute. An independent authority like the proposed Valuation Committee should have the right of notifying an area as slum; if the Ministers of States were to exercise this right, it is not unnatural that they would be tempted to succumb to powerful influences.

CONSERVANCY TOOLS AND PLANT

The Madras Ministry of Health seems to labour under a misapprehension that, with the issuing of government orders on any subject, its responsibility ceases. The officers, whose duty it is to carry out the orders of Government, have developed a knack of defeating the intentions of the Government so insidiously and ingeniously that the Government is unable to pin them on to their duty. There are many instances. Let us quote just one or two in the hope that the ministry would wake up from its slumber and whip its expert officers to activity.

It is long since the question of standardising the conservancy tools and plant was raised and the Director of Public Health, called upon by the Board of

Public Health to take action in the matter. The Government have a Sanitary Engineer, whose normal duty should include the standardisation of such a plant and we do not know how he has escaped from an obvious task, which has consequently fallen on other shoulders.

The Board of Public Health also passed a resolution that in certain towns the so-called conservancy work should be transferred to the engineer officer. In this matter as well, there has been absence of action, by the officers concerned.

Bankruptcy of knowledge is an outdated offence; there is greater danger from shirkers of duty than from nincompoops.

A MAJOR SCANDAL

We have in these columns criticised the proposed and ill-advised construction of a prefab-factory. Eminent experts, who can claim to know what they are talking about, similarly ridiculed the idea. The Minister of Health, Government of India, told Parliament

(when Mr. H. V. Kamath, M.P., raised the issue on the floor of the House) that one must "wait and see". We have waited and seen. And what is it that we see now? A sub-committee appointed by the Government to go into the question of prefab-housing factory

has reported that the factory should be scrapped, though according to the committee the factory could be put to some other good use (like manufacturing prefabricated replies!)

The full report of the committee has not been made available to the public. The Government of India, indeed even States Governments, do not generally publish the reports which criticise their action. But from a short extract of the report, flashed by a correspondent, the responsibility seems to have been put on the then Finance Minister! Whenever anything adverse is commented upon, the Minister of Health shoves the responsibility on those who are not there to defend themselves! It is an old trick to stigmatise an absent person to wriggle out of an unpleasant situation.

From a statement issued by Mr. Kamath on 21st January, it would appear that he might demand a judicial

enquiry to fix the responsibility for the criminal waste of our resources on the prefabricated house building project. By judicial enquiry, let it not be understood that it should be conducted by a body of legal men or retired judges whose sphere of knowledge may not extend to the economy of housing schemes. A judicial enquiry ordinarily means an impartial enquiry by people who can claim to know something about the subject matter under consideration. The word 'judicial' is there purely to indicate the sense of fairplay that should pervade the enquiry. An unbiassed mind need not necessarily be a blank one (in the subject)! Any other Health Minister in a truly democratic state would have submitted his resignation if placed in a position of similar embarrassment. But in India, those in authority have learnt how to grow a thick hide.

A NOTE OF CAUTION

Public funds will always be wasted if schemes evolved by "G.O. experts" are sanctioned without being subject to the critical scrutiny of the profession. The absolute reliance which our governments place in their chosen experts is fraught with danger.

The recent instance of the prefab-factory should serve as an eye-opener to the ministries still under the hypnotic spell of their favourite experts. Had the prefab-scheme been investigated more thoroughly at an early stage by professional men other than those actually responsible for its genesis, the people's money could have been saved.

In the State of Madras too, the tendency to sanction schemes in haste

might end up in the discovery of lacunas, when it is too late. We would like to caution the State to have their water supply and drainage schemes reconsidered by a body of competent, independent professional men before allowing the expenditure of public money. We have every reason to believe that, as it is, there has been a lot of waste. Schemes of dubious worth may appear satisfactory to a single track mind, but the scorching analysis by a number of minds might reveal hidden hollows. An engineering expert who trusts implicitly in himself is more harmful than a young general practitioner who scorns the aid of a seasoned consultant.

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By
SLEDGE HAMMER

Fear not to lie, 'twill seem a lucky hit;
Shrink not from blasphemy, 'twill pass for wit;
Care not for feeling—pass your proper jest,
And stand a critic, hated yet caressed—Byron.

Babu P. D. Tandon, The Cricketer.

I believe it was in the papers a few weeks ago that Babu P. D. Tandon has threatened to take out a team of veterans to play cricket.

Misfortunes never come single, they say, especially as far as India is concerned. We may have to suffer seeing a Test with Babu Tandon captaining the team—it will be a sore test indeed!

The Board of Cricket Control will, no doubt, consider the need for instituting a new penalty styled B.B.W. similar to L.B.W.—meaning, of course, Beard Before Wicket.

Hindi expressions will, in due course, replace the English ones, and, for a beginning, appeals to the Umpire will be the heart-rending cry of "Khaisa" instead of "How". But more of this later!

The Corporation Mayoralty

When Dr. Cherian completed his term of mayoralty, the Council met to eulogise him and the Councillors—most or almost all of them—spoke! They spoke melodiously, mellowly, and, almost mellifluously. The set up of the Council was almost like a broad bare back, softly soaped and soapy lathered on which nicely manicured fingers

scratched—purr, purr—with even rhythm and gentle pressure. Back scratching is delicious—to the recipient!

Dr. Cherian is, of course, a charming man, and did very well, all round in 1950, a very good year for him. The great qualities of his head and heart, not to mention, his ears, nose and throat, won for him a mayoralty, a Rotary Governorship, a trip to U.S.A. and U.K., and finally membership of the Legislative Council. With the planets disposed as they are, we may see him, shortly, perhaps, as a Minister. Who can tell?

Rajkumari to Surgeons.

Addressing Surgeons at Bombay, Rajkumari Amrit Kaur asked them to investigate "the causative factors associated with the pathological conditions" which they were attempting to alleviate.

I suggest that someone should investigate the pathological factors associated with the causative conditions which Ministers at the Centre were attempting to alleviate. And someone also should investigate the pathetic nature of the pathological condition in which ministers in the states were functioning. Indeed I would commend the institution of a Research Fellowship to deal with the whole

question of the pathology of ministerial administration with special reference to the issue of pathogenetic government orders and the generally pathogromonic character of governmental activity.

I must confess I suffer from pathophobia. Don't you?

Ban on Smoking in Cinemas

The Madras Government propose to introduce a Bill further to amend the City Police Act tightening up the provisions for prohibition of smoking during public entertainments. May be they are right in attempting to keep places of public resort free from being smoky or smelly, but what have they done towards eradicating other forms of smelliness, vile, putrid and execrable?

Which reminds me of an old Nambudri chestnut. Thirumeni, accompanied by his Nayar servant, was walking past a slum one day when the overpowering odour of dried fish almost flattened him. At once he stopped breathing, closed his nostrils with his fingers, and started running. After clearing the smelly zone, he turned and looked at the Nayar and was surprised to see him repeating his performance.

"Why have you closed your nostrils?" asked Thirumeni.

"Why did you close them, Master?" asked the Nayar.

"Why! You fool! Because I did not like to take in the smell of dried fish!"

"Ah, yes! noble Master, and I did not like to lose the smell, I had taken in!"

Some of us may likewise prefer the smell of good tobacco to—I think I need not particularise!

Corporation Loan for Slum Clearance

Government have permitted the Corporation of Madras to go to the open money market for a loan to provide funds for

slum clearance. Is the money market so open as all that, and for all that? Open at both ends, perhaps?

"It is to be hoped the Corporation will meet with success, for capital has been very shy of late" says a Madras newspaper. Speaking for myself, what little capital I have is not shy of the Corporation; it is scared stiff of the Corporation!

The same newspaper suggests that civic pride should ensure the success of the Corporation's appeal, and hopes that their first venture into the open market will not result in disappointment to the members of the City Council who have set their hearts on making much needed improvements to the city. Very sentimental, indeed!

Listen, Brother, let's be honest. Civic pride is all very good, but it shouldn't be one sided! Right? You go to the Corporation for a licence, you get shoo-ed. Go away, go away, we are too busy! You wait six months for a licence to build a house, you wait, perhaps, four months more for a water tap, and a further couple of months for a drain connection. All the time you get shoo-ed like they do to geese in a garden. Everybody chases you out including the divisional overseer and the maistry. However, it is all-over and you get your house through, and then they start skinning you for taxes and betterment levy. You start your appeals and you stumble through them, browbeaten, battered, bullied and blasted. You never see the end of them. What little pride in yourself that you had is all gone, your spine is dismantled, you develop migraine, jaundice and enuresis—all, as a result of your peregrinations to the Corporation's offices, depots and sub-depots.

While you are thus reduced to decrepitude, you find the city fathers giving civic receptions, with plenty to eat for hundreds of overfed citizens and—always—a dance performance as entertainment! Your civic pride should stand you in good stead to justify the regalia!

You think I am their Aunt Sally? Civic Pride! Bah!

Poultry Development.

Mr. A. B. Shetty, the Agriculture Minister has spoken very appreciatively of the work of the American Arcot Mission in the matter of poultry development. It was very important, he said, that the production and consumption of eggs should be increased manifold in this country.

I dread the inevitable after this. The Ministry would try to impose a price control on eggs, and ask for declaration of stocks. Hens will be trained not to lay eggs in the open, cocks and hens will disappear underground and 'cock-a-doodle-doo' will be a muffled sound from the bowels of the earth in the future. In fact, hens will be taught to lay eggs without yolk for sale at controlled prices, the real stuff being reserved for the black-market! Oh! What a life!

Health Conditions in Madras State 1949.

The D. P. H. says in his annual report that (a) reduction in infantile mortality is greater in rural areas (10%) than in urban areas (3%), (b) the risk to the infant is greater in the towns than in the villages, (c) maternal morality in urban areas continues to be higher than that in rural areas in spite of wider maternal and child health organization.

"Are there environmental or nutritional factors operating adversely in towns?" asks the D. P. H.

Perhaps! Sepsis in urban areas and Bacteriophage in rural areas? Which might lead the powers that be to speculate on leaving the rural areas underdeveloped.

Overheard at the Club Lounge.

Mr. Gollywog: Who are the members of the committee set up by Government to suggest improvements to coffee hotels and eating houses?

Mr. Scalawag: Departmental officers. No outsiders.

Gollywog: It's time they had a report ready.

Scalawag: Yes and no. They were given three months to frame a report. They have just started thinking about the darned job.

Gollywog: What have they started on anyway?

Scalawag: They are trying to smoke out a copy of the report of a similar committee set up by the Railway Administration.

Gollywog: But I thought that was mostly concerned with special problems, peculiar to Railway stations.

Scalawag: Yes and no. What does it matter, anyhow?

Gollywog: Quite. Quite. Have a cigarette.

School Buildings.

Speaking at Trichinopoly on the 16th January, Mr. K. Madhava Menon, the Education Minister, said that many government schools in the State were housed in unsuitable buildings: That in Salem, a government school for 600 girls was located in the quarters of the Assistant Surgeon, and that if he had put cattle there, he would have been prosecuted by the Society for the Prevention of Cruelty to Animals.

And that's that. Having made the above admirable statement, he unbuttoned his bushcoat and went to sleep. He is a wise Minister who calls a spade a ruddy spade, looks you square in the face and asks "Now What?" He has told you it is all goofy!

Honesty is the best policy, remember that. And our Education Minister knows all about it.

Family Limitation.

Mr. Tenneti Viswanathan has gone for it, hammer and tongs. He thinks that among "unfits" should be included a woman having already six children!

I know several estimable ladies who have eleven and twelve children, some that have fourteen, and one at least who has eighteen, and all of them are fit as fiddles. I have mistaken one or two of them for their own children, and certainly know one small-made lady who was on several occasions, mistaken to be her son-in-law's wife!

Several women can take it all in the stride and be thoroughly pleased over their performance. As for looking after the kids, it is just a case of shifting it on younger shoulders. Bring up the first two kids and they will carry on the good work for the later editions. The proof reading is only for the first copy, what?

I am all with Mr. Viswanathan, but I don't think he should take the risk of being logical or reasonable. Wouldn't it be enough if we say, "Let's take it easy for one generation?"

Nurses Blockade Surgeon-General's Office

One hundred and thirty pupil nurses have been summarily axed after 3½ years' training, so sixty of them blockaded the S. G.'s office and gave a headache to his Deputy. Eventually the Superintendent of the Women and Children's Hospital had them shepherded out in the name of discipline.

Have you heard this one? Young George was ill in hospital, but was very cheerful and not very keen on getting a quick discharge. Father had a look in, came back home and said to mother: "Well, Mummy, I have seen George and don't think he will be back home for quite sometime." Very alarmed, Mother asked "Have you seen the Doctor", and father replied, very quietly "No, but I have seen the Nurse".

And imagine, a hundred and thirty of them, instead of being inside the hospitals, are to be left outside! Huh! I don't like it.

British Doctor's Views on Vaccination

Dr. C. Killick Millard of Leicester writing in the 'Lancet' says that "the suspicion arises, and should be faced, that in India, as in Britain, though vaccination saves many individual lives, it may have actually made things worse for the community by intensifying the severity of the disease". While not suggesting that India should abandon the use of vaccinations, he thinks it might worth trying the experiment of introducing, on a sufficiently large scale, a very mild form of small-pox from the western hemisphere which might transform the whole situation.

It is interesting to know that the form of small-pox prevalent in the western hemisphere is milder in variety, which probably, accounts for the English name small pox, as against the Tamil name Large pox.

I know that the 'Lancet' is widely read in India by medical men, but I would like Dr. Millard to know that he is wasting his time and his thoughts. Our medical men have no time for experimentation and no facilities or aptitude either; our research laboratories have no scientific flesh, bone or tissue; systematic investigations are unknown to us and no data have been ever collected; we have no organisation or machinery for embarking on such work; our statistics are fundamentally unreliable as they emerge into publicity only after window-dressing; our people are fatalists and don't care a damn for scientific explanations; they firmly believe that nothing can happen except in conformity with a set pattern of destiny; our Governments are afflicted by chronic financial and imaginative constipation and have been calling on the people to practise self-help; in fact we, as a people, depend on the sun for our health and sanitation, on rains for our water, and on Heaven for our food!

Dear Dr. Millard, we regret we have no use for your suggestions:

Yours etc.,
India alias Bharat.

A PLEA FOR THE INAUGURATION OF AN INSTITUTE FOR INTEGRATED LIVING

by

Dr S. Kamesam, Hon. D.Sc., B.E.,
M.E., (Hons.) M.I.E. (Ind.), F.A.Sc.



TO man, there is no greater science and art than to capture life's greatest values. To get more living from life requires training in the know-how to live, and its do-now. The subject is most intriguing; special intensive training is imperative to make the job of living a success. While there are Institutes for giving planned and systematic instruction and training in practically every subject, including such minor subjects like confectionery and tailoring, there is not a single Institute in the world, today, giving instruction to Man to integrate his activities for complete and abundant living. There is hardly any art, science or plan in living as most men live at present. Man is just drifting in the current of life. Even the little he knew of the art of living before the machine age has been, of late, ignored in his delirium of making the maximum of money in the minimum of time. More recently, Man seems to have passed into a complete stupor, and does not even seem to pause and appreciate the fact that he has well-nigh forgotten the art of living. "Living up to the Jones's" and undue indulgence in a variety of tastes of stimulating but denatured foods and drinks, improper physical habits, lack of emotional control and mental discipline, wrong posture and sedentary habits seem to be the plus factors in his today's life. While professing to be more scientific than ever

in man's history, never has Man lived counter to all known scientific principles of living as today. He grows food, which, he definitely knows, is lacking in essential and tracer minerals, due to depletion of land and its fertilization not by compost and other biological manures (which have kept China healthy for 4,000 years) but by avowedly incomplete synthetic chemical fertilisers which are and can never be a complete substitute for nature's fertilisers. Man further denatures this already denatured cereals grown in the fields by drastic machine processing, rejecting the most valuable vitamins and minerals salts and reserving practically only unbalanced and unhealthy starch for himself, because it is white. The rejected valuable components are given to cows and pets, which are looked after scientifically, due to the all-pervading and dominant "money motive", for getting maximum value out of their milk or flesh. In the third stage, the twice denatured food is further denatured by over-cooking or improper cooking in most cases. At a further stage, irritating spices, preserving and coloring materials, etc., make the food even more unhealthy for human digestion or assimilation. Man commits yet a further sin in consuming too hot or too cold food without proper chewing, and too much of this denatured and wrongly processed food, often in obviously wrong combinations Man sacrifices his

own life at the altar of colour and titillation of taste buds, and deliberately rejects all findings of scientific nutrition. After doing all this and paying capitalists for factory-produced artificial fertilisers, milling cereals, refining sugar and salt, making pickles, sauces, spices, tinned foods, and essences and a thousand other food products required for making food 'more tasty', man once more pays crores, to atone, as it were, for his folly, by the deficiencies in food materials like vitamins and mineral salts etc., (deliberately removed, first, by him before eating) and also for correcting the evil consequences of eating denatured, unbalanced and wrong food he eats on laxatives, sedatives, soporifics and hundreds of drugs. One can easily surmise the resulting specimen who, day in and day out, commits errors of scientific nutrition and "correction" by synthetic chemicals. It is obvious that man can never really synthesise Nature's foods for the body or soil. Factories for making vitamins and drugs, and hospitals which are meant to look after the casualties (physical, mental or nervous) of wrong living cost man not only billions by way of drugs, doctors, hospitals and the several connected industries but cost even more to his community and the world, by the efficiency and time lost due to chronic diseases.

For Failing Health

The administration of the States of the world has been increasingly passing into the hands of middle-aged or older statesmen, a large majority of whom are unfortunately sick, attended often by doctors and carrying on their work with the help of poisonous stimulants or palliatives, to appease Nature's revolts against wrong living. Most of the really healthy politicians and administrators of the world are men who have regulated their lives and abstained from drugs and doctors for several years of their life. The situation is worse today than when the Roman Empire fell due to gluttony and licentious habits, when only a minority, the rich, were over-eating. Mass production by machines, which has been rendered

possible by science, has not been an unmixed blessing. By placing on the market, at low cost for processing, thousands of tasty foods, it has been corrupting the eating and living habits of even the poor so that increasingly all the civilised population of the world, is "living to eat," and depending on denatured (at least some types of irritant foods) and devitalised food for healthy body building. If their pets or domestic animals are fed on this type of food, they would die in a short time or they cannot be made to eat at all. Flagrant and incessant violation of nature at every step and in almost every manner seems to be the order of the day. There is neither legislative government action nor public opinion against the high pressure salesmanship and advertising of ill-balanced foods and their poisonous correctives. Never has even the rich man been so 'hungry' for essential food elements as today. Biological starvation in the midst of plenty of food is the rule, not due to lack of knowledge but to mass wrong food habits, for which civilised governments cannot be absolved of their responsibility.

The Drugging Habit

It is a pity that India, after getting her independence, has not so far appreciated the art of complete and healthy living in clearer perspective than the West. She is still following the suicidal practices of the West regarding the technique of living, including that for the treatment of illness, which reposes trust (although not in theory) in actual practice in first violating Nature, and then rushing madly to poisonous drugs and injections, or unnecessary surgical operations. These are designed to relieve pain or discomfort, making life a little more bearable or pleasant but paying a heavy price in the long run. These encourage a habit of bluffing ourselves. Most doctors are too overworked (or are victims to mass habits) to practise what they preach as regards preventive medicine like rest. The others, including members of doctors' families do not care either to follow doctors' advice, because of fashion or lack of physical and

mental discipline or mostly because doctors are nearly as much sinners against Nature, in an important matter like nutrition, as others. The result in all cases is the same. This frequent or constant patching up of sickness for years, (silencing Nature's kindly red signals) not only drives disease deeper but results in further stimuli to man for continuing to sin against Nature, with open eyes as it were, hoping for the best, and extinguishing, gradually, man's powers to resist temptation, with the result that functional irregularities followed by chronic diseases, set in. **All doctors know that drugs given to sufferers of chronic diseases are either a farce or poison.** If perseverance in painful physiological sinfulness is dull, perseverance in physiological sinfulness is even much duller, and very much more painful and expensive. Man is not interested in an ounce of prevention but is prepared to pay for tons of cure or crores of rupees by governments.

During the last one hundred years, science has achieved a lot in sanitation, hygiene, control of infectious diseases, clean water supply etc. This has considerably reduced child, and even to a smaller extent, adult mortality. Financial investment for these purposes had yielded excellent dividends, but the same cannot be said about the trillions that man has spent on drugs, hospitals, doctors and connected curative medicinal industries.

Wrong Ideas

Mortality at the age of ten is less than 3 per thousand in most civilised countries as against 20 times this number at the age of fifty. Due to lack of self-discipline of adults in eating and living for years, with no correction by the age of forty or forty-five, chronic diseases insidiously creep into the systems of most men. The value of the experience and utility to the world of men over fifty for service in bettering the human race in the correct direction is unquestioned. Due to the unfortunate synchronising of a lot of unfavourable factors at this critical age (like lack of money), many domestic worries are due to his

throwing his last ounce of energy, if need be, for realising his life's ambitions (before he retires a few years after). In most cases in the grip of some chronic disease (which strangles him like an octopus, gripping him more and more firmly, as he tries to get out of its shackles by violent means like drugs, injections and unnecessary surgical operations), man feels like a fly caught in a web.

It now dawns on him the consequences of hard work without rest and of eating devitalised food and other habits but he cannot make up his mind to act—to relax or to correct his life-long habits. Even at this stage, Nature is ready, (even anxious), to help man, but he declines Nature's practically last sporting offer saying "I have no time, and I cannot go against society, and every member of my family only faddists say says medicines cannot help." He continues to commit, even to a greater degree, the same blunders of diet, physical and mental habits, half knowing that these had brought on him originally the disease. At this critical age, he refuses to appreciate that "a short life line goes with a long waist line" although statistics have time and again, proved. He postpones *sine die* dieting to control weight and abdominal girth. There is hardly a single sanatorium in India equipped to deal with the root cause of chronic disease—impoverished blood due mostly to faulty elimination. With no public opinion against modern habits, there is no public demand for such a sanatorium. The writer has lost a few lakhs of rupees in making such an effort. Disease, like untruth, has a myriad faces, but health, like truth, has only one face. No Government in the world (except the German government before the war) have, so far, cared to do anything in the matter of educating public opinion or establishing sanatoria for dealing with sickness by its prevention and by diet, physiotherapy methods and mind training—integrated prophylactic measures dictated by Nature.

A Sad State

It is a tragic fact that these sick people over 50 years, own more than 80% of the world's wealth, and hence the capacity for

capital investment. With their invaluable experience behind them, most of them being self-made men, they could, if healthy, guide the destiny of nation and the world to better ends instead of bitter ends. Health or sickness of these men makes all the difference to the happiness or misery of mankind, especially for India where so much work will have to be done in the near future. The fate of younger generation is in the hands of these physically, mentally and emotionally sick people most of them, disillusioned or tired of life. If they are entrusted with work of great responsibility, they tend to misguide and are bound to be either too cautious or adopt quick cures. Like aeroplane pilots, administrators in responsible position should be examined and passed annually for physical fitness. Many people of the pre-drug age have done their best work after fifty. Surely, the later years of life ought to be the best ones, provided man can feel *joy de vivre*, both physically and mentally. This will be possible provided he is given the knowledge, and public opinion created against correction of wrong habits by drugging and suitable legislation passed by the State against indiscriminate drugging during the earlier years of life, and practically no drugging after 40. It is well known how few of our ancestors, who are still happily living with us, who have never taken drugs at all for fifty years and over.

Although we have not got a fraction of the material or scientific resources of the U.S.A. which (with her colossal industrial potential) seems to "lead" the world in all matters, we are blindly imitating her suicidal policy for dealing with sickness (if not, peace) giving undue emphasis to drugs and hospitals, and comparatively little to the actual practice of preventive medicine by the individual, or planned instruction in schools and colleges on "Integrated living" composed of scientific nutrition, practical psychology and philosophy etc. Billions are being spent on the curative side of disease, which is a penalty imposed on men by Nature for his indiscretions. Even the few healthy people are made to pay for others' indiscretions. Statistics demonstrate clearly that the

West, including the U.S.A. is progressing completely in the wrong direction, (as she is doing if one might add, in the case of world peace) for trying to fight disease instead of co-operating with it, and harmonising life with nature. In fact, curative medicine has become almost a "racket",—a most powerful racket—and it is controlling the press, radio and even government and public opinion. The cost of prevention is practically nothing, and as individual preventive measures cannot support captains of Industry, (who control many governments in the West) its case, in these days when publicity is everything in a democratic order, goes by default. Self-discipline cannot support dividend-yielding industries. There is no money necessary to sell or buy simple living or natural foods. Governments are also hypnotised by the propaganda for drugs and curative medicines made by drug racketeers, who drug even many doctors with free samples! The effect of socialised medicine, for over fifteen years, in New Zealand, (the first country in the world to introduce drugging at State expense), has shown that drugging has gone up several fold with certainly no improvement in the expectation of life at the age of 50. Eminent doctors in U.K., after over 2 years' experience of socialised medicine, feel it will be a failure as the system is being abused and feel that the effect on preventive medicine is tragic. Public health work, measures for the prevention of disease, either in existence or planned, have been retarded or abandoned. 72,000 more died during the first year of socialised medicine. The effects of free and freely drugging, at Government expense, will be more obvious in 10 to 15 years. Let us consider a few facts about the U.S.A. which many countries in the world envy and choose to be their ideal to plan for dealing with sickness. In the U. S. A. not more than 3 out of 10 young men are considered fit for the Army Defence Forces. Over 90% of adults over 50 are suffering from some chronic disease or the other, for which there is no cure, but, with their owning wealth, form excellent guinea pigs for fashionable doctors and drug manu-

facturers. More than 50% of patients in the hospital of the U.S.A., the best equipped in the world, are mental. One does not know how many not in the hospitals, are mental and are guiding or misguiding the country. At the age of 45, the average American is 20 lbs. heavier than he should be for optimum longevity, sacrificing 10 years of life, most useful to him and to the country, due to this obesity. The average expectation of life in the U.S.A. at the age of 50 is, today, hardly more than what it was 50 years ago, when comparatively a very small fraction of money was spent on medical research, drugs, vitamins etc. and men depended more on priceless simple life. Statistics are not available but it is reasonable to presume that the best decade of man today is much less healthy than what it was 50 years ago. Can there be a more devastating commentary on medical progress, and on trillions of dollars spent during the last 50 years? Talking in terms of pure business, the U.S.A. has completely failed in practice in her task as far as healthy and efficient adult longevity is concerned (especially after improving the vitality of young age by sanitation etc.), in spite of the discovery of revolutionary drugs like insulin, penicillin, aureomycin, sulpha, vitamins etc., (which are too often misused to cover up sins of commission and omission in living) and in spite of the best food, in liberal quantities, trained doctors and the best equipped hospitals, Research Laboratories etc., that the world has ever seen. Will India worship at the same altar, wasting crores of rupees which she can ill-afford on curative medicines and drugs, and in encouraging wrong physical habits, over-eating and drugging to produce wealthy, but physically and mentally sick people who are a menace to the country instead of being a valuable asset? Let India save these crores and use them for inaugurating Institutes for Integrated Living to help India produce all-round developed men and women, who can look after their mental and physical health in a horizontal integration of their lives at different ages, and vertical integration of activity designed to save the country and the world. Let

India start service stations for middle aged people where they are trained to live, mentally and physically, in harmony with nature. It requires courage and original planning for India to part company with all other civilised countries on the orthodox path in dealing with ill-health. Diagnosis of any disease is half the cure. The two time-worn adages that "Prevention is better than cure" and "A stitch in time saves nine" should be our foundations for any scheme of integrated living. As Bernard MacFadden said "Life is a game. Don't cheat Mother Nature and expect lucky brakes".

A Novel Institute

The writer has given considerable thought for over 30 years to the question of dealing with ill-health of mind and body in India, and also in Europe and America during his several visits abroad. He has also made several experiments on himself. He established in 1947 probably the best equipped Nature Cure Sanatorium in Asia and Australia, but it failed due to lack of public demand for an institution which teaches the know-how of maintaining and regaining health by self-discipline in a drug dominated world. He feels that the first step to be taken for Government is to inaugurate immediately at some place, blessed by Nature, with a favourable climate, like Bangalore, an Institute for Integrated Living, for giving convincing and systematic balanced training to young and old, men and women, the art and science of complete living in which mind cannot be separated from the body, and no dividends will be available to scores of industries which are parasites on the human race and are living on the blood and ill-health of man, especially the rich self-made men who can afford to pay heavily for fashionable doctors and drugs who can show short term dividends, ending with inevitable crash, as often happens in all cases of cheating—in this case cheating themselves! Such an Institute should also train instructors to man eventually other Institutes (one for every district) in the country. They will help the country to nip mental and physical disease in the

bud, and save crores of the country's wealth but the health, life and efficiency of the middle class middle age groups of the country, which cannot be translated adequately into rupees, annas and pises.

1. Breathing
2. Drinking
3. Eating
4. Seeing
5. Fasting
6. Slenderising
7. Eliminating
8. Bathing
9. Massaging
10. Playing
11. Sitting, standing and walking
12. Resting
13. Clothing
14. Exercising
15. Housing and Gardening
16. Thinking
17. Psychologising
18. Philosophising
19. Personality developing
20. Feeling

Need for Harmony

One might smile at being told that man does not know how to breathe, how to eat, how to drink, how to sleep etc. If the average efficiency of each operation is reckoned to be as high as even 60% (an optimistic figure) and when there are fifteen important operations that Man performs, the integrated efficiency of all is the product of the individual efficiencies, day in and day out, the integrated efficiency is $\left(\frac{60}{100}\right)^{15}$ or less than 1%. This shows our most vaunted scientific efficiency of living in 1950! This shows what tremendous room there is for improvement in the living of Man. The physical, mental and emotional health of man directly affects the efficiency of living, and the figure of less than 1% overall efficiency gives an idea of the scope for his improvement. How is it possible for man to capture the greatest values of living with such a low degree of physical, artistic, emotional and mental efficiency. In an institute for integrated living, instruction should be given on all aspects, (appreciating their mutually dovetailed nature) which make life worth

living and may be truly called "achievement". A few aspects to others besides health may be made. Nothing affects the artistic health of man as, for example, the house in which he lives, in which the body and character of himself and his family—integrated life and character of a unit—develops. Its design in harmony with nature, its climate control, its colour scheme, furnishing, its ventilation and lighting etc. intimately affect man day and night. So far, there has been no serious attention or systematic instruction given to boys and girls in house planning, so that when they become men and women, they have the most vague ideas of artistic house planning. As it affects the artistic soul of man and woman, boy and girl, principles of house design and decoration, role of colour, artistic gardening etc. should play an important part in instruction by any Institute for integrated living, for teaching man to capture the greatest values out of his most immediate and intimate environment. Instruction in practical psychological principles is also most necessary for ensuring harmonious relations among members in the home, and with others one comes into contact with in the world with a happy home. Sound physical and nervous health, knowledge of everyday psychological principles and factors for improving his personality can make man enjoyable to himself and to others. The philosophical aspect is also most important. With inevitable failures and disappointments that man has to encounter in life, he has to learn, in a rational manner, how to meet them 'like a man' and not be blown over like a thin leaf and become a nervous wreck, tarnishing the joy of living of himself and of all who come into contact with him. It is very expensive to man, his family, his country and even to the world for man, to learn psychology and philosophy by the 'hit and miss' method of experience, which may in the process, either make him a misanthrope or drive him into the folds of insanity or some pseudo or dogmatic religion, (a psychological dope), and hence a remedy worse than the disease. Although one may be an excellent man to society in every other

way, he may become a nuisance or even another casualty to his family and society by lack of balanced philosophical outlook. There is again the recreational aspects in the science and art of living which can be a plus factor in enabling man to capture the greatest values out of living. How few really know how to plan and enjoy a vacation? How few know how to spend playing some pleasant games etc. There is no place where without feeling ashamed, grown-ups can learn the know-how of different games. In fact, one is aware of the tragic sight of most of our ablest men dying in a year or two after retiring from service or business, knowing no hobbies either artistic, intellectual or recreational. His interest is often confined to the daily newspaper, cards at the club, and radio. These cannot certainly keep his brain cells healthy at an age when the exercise of the brain is even more important than the body.

Man's training at the University and in the office, for four decades makes him an efficient work-machine. His aptitude for learning new hobbies has become atrophied. He has 'no time' to play games or indulge in hobbies. He is too calcified to learn new things. There is a natural aversion to learn new things at this age. It has never crossed his mind that work and money are only a means to an end. A real holiday to man is a mirage, and it recedes farther and farther till he is bedridden, or he is claimed by the undertaker. He does not feel the 'joy of living' with each step he takes. With planned training, man can render services by an integrated life, in all its widest and deepest implications, always capable of differentiating the inner fountain of joy from the temporary ebullition of pleasure, derived too often from the undue indulgence of uncontrolled and unhealthy stimulating practices of mind or body, which bring on the inevitable, and inexorable depression of the body, mind and spirit, afterwards. There is a general and pathological stepping down of self-discipline with each violation against nature, after man has once started earning his living in sedentary occupations. Divergence of opinion is hardly possible on the imperative and urgent necessity for

the systematic training of man in the art and science of integrated living, instead of limping his way through life, drifting and depending on the 'hit and miss' method. A cynic might almost say that science is now more exploited than its findings utilised by man.

A Lead to Others

Let us make a beginning with the inaugurating of at least one central institute at Bangalore for integrated living for the whole of India. Such an Institute can be more efficient today than at any time in the world's history, as all findings of health, psychology, philosophy, recreation etc. are more available today than at any other time. It will be the first of its kind in the world, dedicated to the most complete science of living which circumscribes all other sciences and can be planned to enable man for rising to his full stature physically, morally, mentally and spiritually, by non-violence to man and God. Let us remember that 'We command Nature, only by obeying her' as Bacon said. The writer feels that the spreading of this idea is the vital need of today, to retrace the paths of war and sickness that the world is progressing along.

Let India give a lead to the rest of the world, with the first planned Life Integration H.Q. designed to radiate physical, mental and spiritual health, helping to bring into being a new race of men who will combine in their bodies, minds and souls, the bodily grace of old Athenians, the physical and mental vitality and poise of the old Romans and the deep soul culture of ancient Indian sages. Let India bid goodbye to a system of concentrated city and unnatural living which is pathologically and avowedly lopsided, and has given rise to a generation of money-greedy, pleasure-drunk and sex-ridden freaks, riding the crest of the machine civilisation, helping to drive even the so-called, "backward countries" of S.E. Asia to a general race-suicide. The present most dangerous position is an opportunity in India to take the challenge, and help the so-called advanced countries of the West to take Nature as her guide, and reverse their path for living.

REPORT OF THE ENVIRONMENTAL HYGIENE COMMITTEE HIGHLIGHTS AND SIDELIGHTS

by

A. V. Raman

This is the fourth of the series on the subject. It is understood that the report of the Environmental Hygiene Committee has recently been referred to the States' Government for their remarks. It would be interesting to note, in this connection, that the committee was constituted by an order dated 16th June, 1948. The first meeting of the committee was held at New Delhi on 25th and 26th June, 1948. The committee signed its report on 18th October 1949. A printed copy of the report reached the author of this article on 6th September 1950. The readers can judge the speed with which the Government machinery moves in considering a subject, acknowledged at all hands, as vital to the health of the nation.

—Ed. P. H.

While Dr. Jivraj Mehta and I were in correspondence with each other on the question of the constitution of a committee to examine environmental hygiene, the A.P.I. flashed a message throughout the country that the Government of India had decided to constitute a committee to go into the question. But the message did not reveal the names of the members of the proposed committee. I drew the attention of Dr. Jivraj Mehta to the A.P.I. message in my letter dated 19th May 1948.

Apparently, Dr. Jivraj Mehta, as could naturally be expected, was far too busy to reply to my letters then and there. He was able to write to me only on 22nd May, 1948. I give hereunder the full text of the letter, as it is an important landmark.

My dear Mr. Raman,

I have three of your letters dated the 13th, 15th and 19th insts. to acknowledge and to thank you for. I regret there is a delay in the announcement of the personnel of the committee because I received a message the other day from the Municipal Commissioner about his inability to spare Mr. Modak for the work of the committee. This has upset the plan. Otherwise my intention was to call a meeting of the sub-committee next week to consider and adopt your elab-

orate questionnaire so as to give a fillip to the work as early as possible. I am now planning to go to Bombay on the 31st May and would contact the Municipal Commissioner and Mr. Modak to see if some way could be found for Mr. Modak's co-operation. You will thus appreciate the delay in not writing to you in the matter. In case we do not succeed in having Mr. Modak, I have requested the Bengal Premier to spare the services of Mr. S. C. Bose, who is a Public Health Engineer on the staff of the Government of West Bengal. I had a talk with Mr. T. T. Krishnamachari and I thanked him for all the assistance he had given in the work of the questionnaire and his advice to you in various ways in the work of the proposed committee. In view of what is stated above, it would not be now possible to call a meeting of the committee early but we should do so as soon as possible. Anyhow, there is a conference of the Chairmen of the Improvement Trusts in the last week of June (on the 28th, 29th and 30th June) and it is our desire that the members of the committee should attend that conference. In that case it might be desirable to convene the first meeting of the committee about that time to avoid frequent journeys. As

regards the photograph, I regret that I have not been able to send you one having none with me at present, Mrs. Mehta having gone to the U.S.A. and therefore I unable to find any.

Thank you so much for all your good wishes on my appointment in Baroda. With kind regards,

—Jivraj Mehta.

On receipt of his letter, I replied to him in my letter dated 27th May, 1948, the text of which is given hereunder:

My dear Dr. Jivraj Mehta,

I thank you sincerely for your very kind and informative letter dated 22nd May, 1948. I observed from the announcements which appeared in the Press from time to time that you had been frightfully busy. I can well imagine it. It is indeed highly creditable that in the midst of the stress of heavy work you find time to devote time and thought on the proposed Environmental Hygiene Committee.

You will find from your records that in one of my very early letters on the subject, I commended the name of Mr. N. V. Modak of Bombay. His experience in public health engineering works of cities is undoubtedly valuable; but as regards rural works, I do not know whether he has had any occasion to devote thought and attention and much less designing public health engineering works to serve our rural areas. My own personal view is that we can get the benefit of his experience by examining him on large works concerning big cities. The alternative suggestion you have made appears in my eyes more appropriate; for, Mr. S. C. Bose as Public Health Engineer on the staff of the Government of West Bengal should have had occasions to study our rural problems. As you have very rightly stressed, our problems of environmental sanitation relate to our rural people, who form the bulk of our population. In the circumstances, if you agree, you may negotiate for the services of Mr. S. C. Bose straightaway.

On the eve of T.T.K.'s departure to the United Kingdom, he has written to me a letter. He has referred to your conversation with him on the subject. On his return, I expect him to render most valuable services to the committee on the financial aspects which are really the crux of the problem. Technical talent may devise schemes; but it is on finance that most of them get foundered.

Yes, it would avoid unnecessary trips to and fro if the first meeting of the proposed committee coincides with the conference of the Chairmen of Improvement Trusts. It is indeed a happy idea that the members of the committee should have the chance of attending the conference. One of the questionnaire specifically refers to the utility of Improvement Trusts in improving environmental hygiene.

I managed to get a block—a very small block which the "Indian Express" got from Bombay. They published it while announcing your appointment as Prime Minister of Baroda. My printers are utilizing it for making another block of appropriate size. Thank you.

Speculation is rife as to your successor as D.G. Health Services. As regards your successor as Secretary to Government, I understand that Mr. P. Madhava Menon is likely to succeed. So it goes to an I.C.S. officer. The more important post is really that of D.G.H.S. I do hope and pray that the Government would select your successor who will honestly and sincerely go forward with the larger policies you have laid down so far.

I had been keeping C. R. informed of the genesis and development of the proposed committee on environmental hygiene. If the first meeting of the committee can be fixed after the 28th June, I wonder whether it would be possible to request C. R. in his capacity as Governor-General of the Indian Dominion to inaugurate the proceedings. I know he has some original ideas on the subject. I also know that he has devoted some thought to the problem of our rural

sanitation. Kindly think over. You know best.

With kind regards and best wishes,

—A. V. Ramar

From the Directorate-General of Health Services, New Delhi, I received a letter dated 31st May, 1948 signed by Dr. B. C. Das Gupta. I may mention here that I had not had the honour and privilege of knowing him at all. This was the first occasion when I came to know that an officer bearing his name was one of the Deputy Directors of Health Services attached to the Ministry of Health, Government of India. This fact is significant. His letter runs as under:

My dear Raman,

A formal announcement by Government of India regarding the composition of the committee is still awaited but to save time and to go ahead I send herewith for consideration of and completion by the members of the environmental Hygiene Committee, a questionnaire which will be discussed at the meeting of the committee likely to be convened towards the 3rd or 4th week of June.

The Government of India, Ministry of Health, have proposed to hold in New Delhi a conference of Chairmen of Improvement Trusts and Development Boards on 28th, 29th and 30th June, 1948.

Since this conference will consider and discuss some matters with which the Environmental Hygiene Committee is concerned, it is desirable that the members of the Environmental Hygiene Committee should attend the conference. Papers connected with this conference and the necessary invitation to attend it are expected to be forwarded to you shortly by the Ministry of Health.

B. C. Das Gupta.

I replied to Dr. B. C. Das Gupta in my letter dated 4th June, 1948, which runs as under:

My dear Das Gupta,

Thank you for your D. O. No. 20-1/48-PH-I(A) dated 31st May, 1948 which you

have despatched by Air Mail. I received it yesterday afternoon together with the enclosed questionnaire.

I note what you say about the probability of the first meeting of the committee being held in the third or fourth week of June. I shall be glad if you can favour me with information at the earliest possible moment fixing precisely the date of the first meeting.

Dr. Jivraj Mehta was good enough to keep me informed of the circumstances which was led to the delay in the announcement of the personnel of the committee. The correspondence between us was more of a personal nature than of official or quasi-official character. I do not therefore know whether he has left in your office the correspondence that has passed between us. You will observe from the correspondence if you have occasion to peruse it, that I suggested the Public Health Engineer, West Bengal Government, to be appointed to the Committee in place of Mr. N. V. Modak of Bombay, in view of the difficulties raised by the Commissioner, Bombay Corporation. In point of fact, my personal view is that the Public Health Engineer, West Bengal, would have had better occasions to study our rural problems than Mr. N. V. Modak of Bombay, whose activities, so far as I know have been confined to the city of Bombay.

I have thrown another suggestion in my last letter to Dr. Jivraj Mehta. By the time the committee meets, C. R. would have assumed charge as the First Indian Governor-General of Indian Dominion. I suggested for consideration of Government the desirability of requesting C. R. to inaugurate the proceedings of the committee. I made this suggestion because I know that C. R. has some original ideas on the subject of environmental hygiene and I have been keeping him informed of the genesis and development of the proposal to constitute a committee to enquire into environmental hygiene. I hope this suggestion will receive the consideration of the Ministry of Health.

For the first time, I observe that my designation is given as "Retired Sanitary Engineer with the Govt. of Madras". If you consider that in announcing the members of the committee, the designation of each of them should be given, I would rather like that my present designation being adopted instead of my former connection as the Head of the Sanitary Engineering Department of the Government of Madras. I would much rather prefer to be known as I am rather than what I was. I would prefer my designation being given as "Editor, 'People's Health', Madras". It was in that capacity I took some part in educating public opinion emphasising the importance of environmental hygiene. It was in that capacity I had the privilege of having a long conversation with Dr. Jivraj Mehta at a dinner party given in his honour by the Madras Minister of Health. I believe on that occasion I carried conviction to Dr. Jivraj Mehta. I write at this length on this point because my interest in the subject is more as Editor of *People's Health*, which you are doubtless aware is primarily a propaganda magazine rather than a business venture. From C. R.'s own message which appeared in No. 1. of Vol. II, *People's Health*, you will observe the spirit in which this magazine is published at great sacrifice of time, labour and money. In announcing the personnel of the committee, kindly give my correct designation, viz., 'Editor, *People's Health* Madras' should any designation be given at all. I hope to have the honour and pleasure of meeting you personally and exchanging views on the subject before us.

As I have already written to Dr. Jivraj Mehta, I was racing against time literally to complete the questionnaire. Since then I had been chewing the cud as it were and I have many other suggestions to make to complete the questionnaire. I shall of course place them before the committee when it meets.

With kind regards and best wishes,
—A. V. Raman.

A telegram dated 11th June 1948 which I received on the 12th June, 1948 runs as under:

"Environmental Hygiene Committee meets at Ten O'clock morning of twenty-fifth June in Health Minister's Office Secretariat, North Block and may continue in session on twenty-sixth and twenty-seventh. Letter follows—Hospitals, India."

This telegram was followed by a letter from Dr. K. C. K. E. Raja. It runs as follows: (Be it noted here significantly that I did not receive any intimation about the personnel of the committee.)

Dear Mr. Raman,

The inaugural meeting of the Environmental Hygiene Committee will take place on the 25th of June, in the room of the Hon'ble Health Minister, India, (Room No. 72, Secretariat, North Block) at 10 a.m. It is expected that the Hon'ble Health Minister who unfortunately will not be able to be present, will send a message of welcome to the committee. It is also expected that the Governor-General Sri C. Rajagopalachari will also send a message of welcome.

Please let me know telegraphically whether you desire to have accommodation reserved for yourself. If so, necessary action will be taken.

The meetings of the Environmental Hygiene Committee will take place on the 25th and 26th of June and if there be an overflow of work on the 27th also. On the 28th, 29th and 30th June will take place the meetings of the Conference of Chairmen of Provincial Improvement Trusts. Members of the Environmental Hygiene Committee are welcome to attend the proceedings of the Improvement Trusts' Committee as there are subjects of common interest. Members will be permitted to draw halting allowance for the days that they attend the meetings of the Improvement Trusts' Committee.

—K. C. K. E. Raja.

AMERICAN SLUM CLEARANCE

by

Jane Jacobs

Through the courtesy of U.S.I.S., we have been enabled to publish this article which appeared in *Amerika*, No. 43, a monthly magazine published by the Department of State for a limited overseas distribution. The writer is a member on the staff of *Amerika*.

An old old challenge is being met in the U.S.A. with a realistic, planned programme.

—Ed. P.H.

THE working day is over. In the cities and large towns, men and women pour out of office buildings, factories, and stores. Parking lots empty of the private automobiles that filled them during the day, and highways radiating from the centers of town are choked with "rush-

hour" traffic. At the railway stations, the commuters' trains, every seat taken, leave at minute intervals. Neighbourhood parks empty of baby carriages, toddlers, and mothers. Children tumble out of playgrounds, schools, and clubhouses; they begin to disappear from the streets. It is time to go home.



These stately apartment houses with park and play space about them are replacing slum conditions in many American cities as part of the nation-wide, low-cost housing program sponsored by the Federal Government.

To what kinds of homes are all these millions of American city and town dwellers going? More than half are going to homes which they themselves own. All but about 5 per cent are going to a house or apartment occupied by only their own immediate family. All but about 3 per cent are going to homes with electricity for lights and electric appliances. On the average, the homes they are going to contain five rooms, not counting the bathroom.

What is a Sub-standard House?

But averages often obscure some of the less palpable figures. Exploring further into this average, we find that about 20 per cent of the houses to which these people go are substandard. A substandard house in the United States means a dwelling in need of major repairs or one without an inside bath and flush toilet. Lack of natural light and ventilation in the rooms and location of the building are also considered in designating a house as substandard. A great proportion of this substandard housing is in slums which situated in blighted areas—areas undesirable for residences because the buildings are old or because they are mingled among factories, commercial districts, or slum housing.

Some of these slums are composed of crowded brick or stone tenements or of houses, once fine, which have fallen into disrepair and misuse. Others, a lesser number, are unpainted wooden structures, huddle together in out-of-the-way corners of towns or sprawling haphazardly along "forgotten" streets at the outskirts.

Two slum areas in New York City, both of them considered among the worst, were among the first to be torn down and replaced by the modern housing projects built by the City Housing Authority.

Substandard housing is defined in the United States in terms of city health and housing ordinances. These differ in some details from place to place but are in essential agreement as to what constitutes inadmissible overcrowding and lack of sanitation. Typical of such regulations

are those of the city of Baltimore in the eastern State of Maryland. There every room, to be legally accepted as habitable, must contain window space equal to at least 10 per cent of the floor area of the room; sleeping rooms must have at least 400 cubic feet of air space and 50 square feet of floor space per adult occupant; where two or more persons occupy any dwelling unit, food must not be cooked in any room used for sleeping; in the smallest dwelling units, those of one or two rooms, there must be at least one sink and running water. Dwellings which fall below such standards as these, are considered slums and are liable, if the conditions are not remedied, to be condemned by law as unfit for human habitation.

Minimal Standards

An example of positive application of American housing standards are the minimum requirements, set by the U. S. Government, for publicly built housing for low-income families and for private housing paid for by loans insured by the Government. Each family dwelling unit in a public-housing projects must have its own indoor facilities for bathing, cooking, and laundering; mechanical refrigeration, hot and cold running water, and electric lighting. A unit built to accommodate a family of six people must have a bathroom with toilet, lavatory and tub and a living room with 180 square feet of space. The kitchen-dining space must have at least 125 square feet of space and so must the largest bedroom. The other two bedrooms must each have at least 110 square feet of space. Since these are minimum standards in most public housing now being built the standards are somewhat higher. Regulations for private housing built with the aid of Government funds are comparable.

While substandard dwellings are a sizable problem, equally great is the problem of the slum dwellings which, while not below minimum standard, are still indubitably ugly, discouraging to morale, lacking in opportunities for wholesome recreation,

Development of Slums

Basically, there are two ways in which American slums have developed. Some were always slums—from their beginnings they were poor, badly built, ill-equipped structures or were in areas basically undesirable for residential purposes on the outskirts of cities, where there were no health, building, or sanitary laws to control development. By far the greater part

among them were generally erected after the originally attractive area had already become a slum.

The early citizens and planners, who originally chose these areas as residential districts, never imagined the tremendous industrial and commercial growth that was to take place during the last half of the nineteenth century and the first decades of the twentieth. This astonish-



In the new low-cost housing units being erected in many American cities as part of an over-all Federal plan, are recreational and educational facilities, gathering places to stimulate community interest.

of the problem are the slums within the cities themselves, most often close within the heart of the city, circling out from the very rim of the central business district. The houses, themselves, were not a cause of these slums, for many of them were formerly good—often exceptionally good—residences, and the flimsy tenements

ing growth, which saw the number of large cities in America increase from a half dozen or so to more than 3,460 in about a century, and the urban population increase from 7 per cent of the total population to more than 56 per cent, caused the business and industrial areas of the cities to engulf the adjacent residential areas,

The former residents fled from the noise, the traffic, and the confusion to more distant parts of the city. If the business and industrial establishments had completely taken over the central areas, obliterating them as residences, it might have been healthier both for the city as an entity and for its dwellers as individuals. But, in the midst of the rapid and unplanned growth, these areas remained mixed for both residential and industrial use, with the residences steadily deteriorating as rents were lowered, maintenance reduced, and the buildings subdivided and crowded beyond their original capacities.

Thus arose the anomaly of cities growing swiftly outward, surrounded by great areas of pleasant suburbs and attractive urban houses and apartments, with the dismal slum islands casting their blight at the core. Here and there "industrial slums", made up of distribution, warehouse, or manufacturing establishments which had grown obsolete remained to add their share of decay. The process was effectively arrested in many places by municipal zoning regulations, which marked areas for specific uses—commercial, industrial, or residential. But much of the damage had been done before anyone realized what was happening.

A New Approach

Paradoxically, the process was not one rooted in general economic distress. The greatest periods of city expansion outwards have occurred during the times of greatest economic prosperity. Superficially, it has been economically more sound to build where it was not first necessary to tear down. But fundamentally, it has been an expensive process for the cities and their citizens. It has meant an unnecessarily expensive and heavy outward extension of all types of urban public facilities, with inefficient, partial, and haphazard use of some of the most convenient portions of the city.

One suggested answer, appealing in its directness and simplicity, has been, "Wipe out the worst of the blighted areas. Bring in blocks of light and air. Alleviate them

with oases." Jacob Riis, great Danish-born American newspaper reporter, exposed slum conditions, and crusaded against slums in the New York of the 1890's and early 1900's. Under his guidance, a section known as Mulberry Bend, heart of the most crowded New York tenement district, became a park. But the slum, as an entity, remained, and the people who would have lived in Mulberry Bend crowded into other parts of the area.

Another answer, which has been partially successful, has been self-clearance. This is an answer that has been as unplanned and self-operating as the conditions which gave rise to the slums themselves. It is a great tribute to the human spirit that in many American cities the slums have frequently emptied themselves, as their inhabitants have been able to raise their economic level. Thus, a slum area in the midwest Metropolitan area of Chicago has had this history since 1900, at which time it was already a slum. Its inhabitants at the turn of the century were predominantly immigrants from Germany and Ireland; as these were able to make their way successfully in the new world and left for pleasanter surroundings, they were replaced by Scandinavian and Slavic immigrants, these by immigrants from Italy, and these in turn, by immigrants from South and Central America.

Often this self-clearance has operated even more positively, and the slums have not refilled. Thus, in the decade between 1920 and 1930, the crowded lower East Side of New York City lost 50 percent of its population. Some of these people returned during the economic depression of the 1930's, and others entered the district during the housing shortage of the war years, but to-day the population is very much less than it was before 1920. An area to the north of this district lost half its population between 1923 and 1943, and to-day it is not physically a slum at all, but the site of modern middle-income apartment buildings for 30,000 persons, built in 1946-47. The outlying

suburbs of New York, as of many other cities, have been, to a great extent, populated by former slum dwellers who, as soon as they became economically able, established attractive houses or rented apartments in pleasant districts.

And yet this has not been an answer for those who remain, and it has not provided a solution to the problem of efficient and attractive city planning. Gradually it became clear that a pattern for solution of the problem must integrate the problem's two prime facets—provision of good, modern housing, either privately financed or publicly subsidized; and making over of the blighted areas, both residential and industrial, to the uses for which they are best fitted in the over-all plan for the development of the city. This pattern for an integrated program, already anticipated in the plans and in the first completed rehabilitation projects of many cities was adopted as a policy of the United States in the Housing Act of 1949.

A Two-pronged Attack

In its determined effort to rid American cities of unsightly, unwholesome, and crime-breeding slums, the United States Congress in 1949 passed a Housing Act and stated in its Declaration of National Housing Policy that its goal is "a decent home in a suitable living environment for every American family." The Act contemplates that private building will meet the bulk of the housing need, as it has in the past. Federal Government aid is used, however, for such problems as slum clearance and public housing which cannot be effectively met through private building alone.

Four major problems are authorized by the Act: First, a slum clearance and redevelopment program through which the Federal Government makes loans and grants to cities to help them eliminate their slums and redevelop the blighted areas for their most suitable purposes. Second a low-rent housing program, under which the Federal Government is authorized during the next six years, to help finance the construction of 810,000

public-housing dwellings for families now living in substandard housing who cannot afford adequate private housing. This program is expected to provide accommodations for 3,200,000 persons. Third, a housing research program designed to build better housing at lower costs and to develop more information on which to stimulate home construction. Fourth, a farm housing program, under which farm dwellers may get financial assistance from the Government for building homes and farm buildings.

Few major social programs have had more humble beginnings than this one, nor have they been more carefully experimented with in so many localities. The first public-housing project in the United States for slum rehabilitation—aptly named First Houses—opened its doors to 123 families in 1936, in New York City. It was built with emergency funds from several U.S. government agencies, and with financial assistance from public-spirited private citizens and the proceeds of the sale of materials salvaged from the old buildings on its site. The next year, Congress passed the U.S. Housing Act of 1937, embodying the principle that public housing is a local responsibility, to be carried out by local communities, and that the role of the national government is to give financial and technical assistance. The law provided that, for every public housing dwelling built, a substandard dwelling be eliminated. The pattern of a two-pronged attack on slums had begun to emerge.

First Federal Housing Project

During the next three or four years—until progress was interrupted by building curtailment during World War II—cities, both large and small, across the United States began to build their first public-housing projects. Federal funds financed the construction of 191,000 dwellings and in addition many projects were financed by city and State governments.

In New York City, which has the largest population and the biggest program,

every month on the average, since the end of World War II, a new public housing project has been put into construction. The low-rent projects built under the New York City Housing Authority, which is the

units). Construction under the new Federal housing program began to get under way in 1950; by the beginning of 1950 about 500 communities had already applied to the Federal Government for



Light, air, privacy, and individuality are shown in these simple but attractive dwellings which are springing up in many American cities as part of the national low-cost housing programs.

biggest landlord and builder of homes in the United States, housed 41,000 families—about 150,000 persons—by the end of 1949.

In late 1949 and early 1950, public housing progress was just getting under way again after its suspension during the war and the period of building material shortages after the war. Public housing constructed during 1949 comprised 35,300 units, nearly all of them financed by State and local governments. This was only a thirtieth of all the housing erected that year (total housing for 1949, 1,023,300 dwelling

assistance in public housing projects to accommodate more than 1,500,000 persons.

In all cases, subsidized slum-clearance public housing has kept rigidly to the premise that it is for the lowest income groups, whose housing needs are greatest. In some cases, the projects have been primarily intended for people displaced from slums on the site itself, together with others from the nearest surrounding areas. In other cases, tenants have been taken on the basis of their need, no matter where in a slum area they formerly lived. Always, maximum income levels of

tenants have been set, related to the size of the family, so that people who can themselves afford reasonably good housing will not displace those who cannot. Rentals are always based on the family income, and at a level comparable to that which a family has been paying for its old slum housing.

These projects of the initial period have been experimental in many ways—in plan, in administration, in connected facilities. Through ingenious architectural innovations, it has been found feasible to use as little as 10 to 15 per cent of project site for actual buildings, with the rest of the site for playgrounds and parks. Perhaps most important, the projects have been experiments in social living—in tenant councils, health programs, new facilities for community recreation and education. An investigator, visiting projects across the country in 1949, notes: "In the new environment, many people are developing leadership qualities and talents that were lost or hidden in the slums."

About half of all the low-income public housing projects built before 1950 have been on the sites of former slums. During the years of experimentation, it had become clear however, that only a part of the blighted areas could be properly cleared in this fashion. Earlier misuse of some sites for residences had been largely responsible for the blight and for its spread. Frequently new housing on these sites would still represent misuse of sites far better fitted for commercial or industrial use, for new transportation networks, for general public parks, for hospitals or colleges. In portions where residential use fits properly in over-all city planning, it is often found most desirable to mingle the publicly financed low-income housing with privately built middle-income projects or with housing co-operative projects. Sometimes, too, the most desirable sites for public housing projects are in suburbs or in areas at present vacant.

Value of Master Plan

During this period, many American cities drew up master plans, overhauling a

large part of their park and transportation systems, and commercial, residential, and industrial zoning arrangements. In some places, this planning program was handled by government bodies and their Housing Authorities or special Planning Commissions. In others, as in the eastern steel and coal center of Pittsburgh, it was undertaken by committees of public-spirited citizens with technical help from government and private experts. In still others, a variety of institutions played a part. For example, in the mid-western city of Chicago, a hospital, a technical college, and several industrial firms, all of which were situated in the heart of the city's blighted areas, worked up a comprehensive program for rehabilitation of a seven-square mile area, a plan with which the Chicago Housing Authority is coordinating its project buildings. Whoever took the initial responsibility, these plans in their developed form represent the opinions, the advice, and the help of a great cross-section of organizations and citizen groups.

A Stumbling Block

The stumbling block to these plans—to fully rational treatment of blighted areas—was in large part, economic. The cost of buying the land and removing existing buildings before new construction of factories, office buildings, or privately erected homes and apartments could be undertaken was too great. Individual businesses, apartment-house builders, or private institutions could not do it economically, in most instances.

Logically, many city governments could buy the land, at a fair price agreed upon in the courts, remove the old buildings, and sell or lease the land to the appropriate institutions. But the price would still be too high to be feasible economically, unless the cities could absorb a great part of the cost—in many cases a cost too great to be borne by city finances.

The pattern for solving this problem, and integrating it with rehousing, was set in the 1949 Housing Act. The Act attacks the obstacle of cost by authorizing the

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Federal Government to make loans to local governments for acquiring, clearing, and preparing blighted areas for their new uses, and by authorizing the Government to give grants of money up to two-thirds of the cost involved to help absorb the excess costs of making the land usable for new purposes. These loans and grants are made only when a city has prepared a satisfactory plan for relocating residents living in the project area. The rehousing must be in either the same area or in other areas that are, in the wording of The Housing Act, "not generally less desirable in regard to public utilities and public and commercial facilities and at rents and prices within the financial means of the families displaced from the project area, decent, safe, and sanitary dwellings equal in number to the number of, and available to, such displaced families and reasonably accessible to their places of employment."

The Government's financial aid for public housing, and its loans for moderate-cost privately built housing help the localities in meeting these requirements. In addition, all slum or blighted area clearance projects qualifying for government aid must be primarily residential. Thus a blighted area which is at present

primarily residential—a slum—may be redeveloped for any purpose, provided there is adequate rehousing elsewhere. Any other type of area, which is being redeveloped, must be redeveloped for housing.

By February 1950, reservations for grants, the first step in this completely new urban redevelopment program, had been approved for 37 cities.

Constant Check of Efficiency

The slums in American cities have begun to disappear. But they will not disappear completely overnight. The development of a city is dynamic, and the details of its development must be tested constantly, for success, against specific realities, no matter how carefully constructed the theory. This is one reason that all planning and development details, other than the broad, general, nationally applied requirements, are left to local citizenry.

The improvements made thus far and those in process are impressive not only for the quantity of gain they represent, but in the quality of gain. For these are radically different from "slum improvements" of the past. They represent the end of an old cycle.

BUILDINGS SHAPE US!

We need this team work more than self-expression, as we need more interest in the life we live together and in the work we do together. Again social orientation must balance functional expression. The evolution of society as a whole must not only be expressed and artistically formed, but also be helped and given new impetus by architectural, city and regional planning. That may sound like truism, but it is not, since cause and effect are continuously confused in this realm. The real job of building before us has to be seen clearly and universally as a combination of technical, social and actually spiritual tasks. This threefold obligation of all building will be understood as soon as we realize the formative educational power of the environment we create. To quote the already classical words by Winston Churchill, "We shape our buildings and afterwards our buildings shape us."

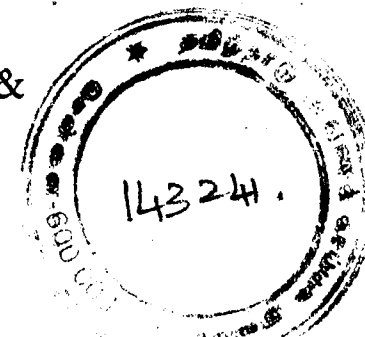
—Paul Zucker.

HALITOSIS (BAD BREATH) & ITS TREATMENT

by

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Introduction

HALITOSIS is commonly known as foul, fetid, offensive or bad breath. The term halitosis is derived from the Latin halitus (breath) and the Greek suffix osis, indicating primarily an increase in volume either in physiologic or pathologic. In the publication of "Natural History" by Pliny, there is a statement "Man's breath becomes infected by the bad quality of food, by the bad state of the teeth and still more by old age." Normal breath has a very faint odour, resembling blooming chestnuts, while the healthy mouth should be free from any odour. At one time or other during life, one suffers from malodours, but it is for a short period and immediately corrected by nature. Presence of offensive breath does not cause any pain or inconvenience; but it is certainly a disagreeable condition. In most cases its presence is partially or not at all recognised by the patient, while on the other hand, those who come in contact with him are actually conscious of it and are often disagreeably offended by it.

Physiology

Physiologists agree that the recognition of odours is brought about by a mild form of aerial stimulation of the "Olfactory" terminals of the fifth nerve, distributed over the surfaces of the nostrils. Here we should remember that odours do not emanate from a given centre nor do they disperse in all directions as sound or light waves do. Olfaction is apparently produced by an infinitesimally small amount of substance. Olfaction can be recognised by vapours or gases only and not in the form of a solution. It is well known that olfactory organs in human-beings are quickly and easily fatigued by continuous exposure to odorous materials. Persons whose occupations lead them to work with disagreeable odours become insensitive to

these exhalations and it is generally recognized that invalids are not affected by malodours which may arise from their own bodies.

Pathology

Pathologists mention the following causes of bad-breath:—

1. Purely dental conditions i. e. the teeth, artificial dental substitutes and the gingival tissues.
2. Diseases of the soft structures of the oral cavity.
3. Diseases of the nasopharyngeal region.
4. Diseases of the Digestive tract.
5. Diseases of the Broncho-Pulmonary area.
6. Diseases of the certain metabolic, febrile and genito-urinary system.
7. Presence of absorbed drugs or poisons.

Bad breath arising from purely dental conditions:—

It may be safely stated without fear of contradiction that more than 90% of all cases of offensive breath originate from prolonged stagnation of food debris about the teeth. The foul odour is brought about by fermentation i.e. the breaking down of retained food remnants by minute organisms—the bacteria. Carbohydrate debris is primarily productive of the various highly odorous fatty acid compounds like diacetic, lactic and propionic acid. Albumen and protein debris are the parent substances of ill smelling ammoniacal compounds, specially the high offensive hydrogen sulphide. Food debris readily clings to all the surfaces of the teeth by adhering to the ever present mucoid plaques. As a result, the free margin of the gingival tissue is more or less always to be found in a state of mild chronic inflammation. Moreover, overhanging fill-

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ings, artificial dental substitutes or the injudicious use of tooth-pick or the tooth-brush are some of the frequent causes which bring about diseased conditions, which, in turn, give rise to malodours. If an exposed gangrenous pulp happens to be present, it will materially add to the quota of foul odours. In advanced cases of general pyorrhea, the patient frequently complains of a bad taste in the mouth on awakening in the morning, accompanied by a characteristic odour. The organic material lodged in artificial dental substitutes (if not kept clean) readily undergoes fermentation and peculiar "false teeth smell" is frequently recognized by those who come in the close range of the wearer of an unclean artificial denture.

2. Bad-breath arising from the diseases of the soft structures of the oral activity:—

All suppurative types of gingivitis stomatitis or other forms of ulceration in the oral cavity are productive of foul odours. The blood clot which forms after the extraction of a tooth becomes infected and consequently productive of a foul odour. A heavy dry tongue coated with a thick greenish brown fur is usually accompanied by offensive breath.

3. Bad-breath arising from diseases of the nasopharyngeal region:—

Chronic laryngitis, pharyngitis and the various types of tonsillar infections are most common causes of halitosis. Adenoids, which are always associated with mouth-breathing, chronic infection of the maxillary sinus and congestion of the nose arising from a deviated septum etc. invariably produce offensive odours from the mouth and the nose and sometimes odour from the mouth and the nose are combined. Here Frankel has suggested that a piece of thin cardboard be placed over the nostrils which will exclude the air passing through the nose when smelling the breath from the mouth at close range.

4. Bad-breath arising from diseases of the digestive tract:—

The causes of offensive breath as mentioned in older medical text-books are

usually referred to as originating most frequently (next to an unclean mouth) from the gastro-intestinal canal. This concept is quite erroneous, because air from the stomach or from the intestines cannot pass through the collapsed oesophagus under normal conditions except in belching. As a proof of this assertion it may be stated that the simple closure of the moist lips, which measure only a few millimeters hermetically seals the mouth to the expired air. Further more, if a gelatine capsule is filled with finely chopped onion and swallowed, no odour can be detected from the mouth; while the smell of the raw onion may be observed as many as ten hours after it has been eaten. Certain diseases of the oesophagus such as strictures, the formation of a cul-de-sac and its dilatation or the late stages of cancerous ulceration of this organ or the stomach, are productive of pronounced foul odours.

5. Bad breath arising from the broncho-pulmonary diseases:—

Among the diseases of the bronchi and the lungs, chronic fetid bronchitis is marked by an intense foul odour of the exhaled air, while in putrid bronchitis, the sputum is the principal carrying medium of the fetid odour. At times, a foul odour resembling decayed meat associated with the gangrene of the lung, with pulmonary abscesses and with pulmonary tuberculosis.

6. Bad breath arising from certain metabolic infections, febrile and genito-urinary diseases:—

One of the earliest outstanding symptoms of diabetes mellitus is a typical fruity odour from the oral cavity, often referred to "Diabetic breath". Chronic suppurative gingivitis and dryness of the mouth which favour the production of foul odours are frequently additional symptoms of diabetes. Scurvy, leukemia, purpura and similar diseases of the blood which manifest themselves by definite symptoms in the oral cavity i.e. by hemorrhage and ulceration, are always accompanied by pronounced foul odours. An offensive breath (resem-

bling the smell of decomposing blood), more or less characteristic of the disease, is, according to Rolleston, found in cirrhosis of liver. During menstruation, the expired air at times exhibit a definite offensive odour somewhat resembling onions which immediately ceases at the expiration of the period. Virtually, all febrile conditions produce putrid odours from retained foul debris, cast off epithelial cells and stagnant saliva plus the increased activity of pathogenic organism. In some cases of influenza, a general stomatitis with more or less deep irregular ulcerations of the tongue, accompanied by a pronounced fetor from the mouth is at times observed. It is claimed by Stone that a day or two after the onset of yellow fever and occasionally even a few days before the manifestation of its typical symptoms, peculiar putrid odour is noticed in the expired air of the patient.

Prolonged speaking, hunger or psychic excitement frequently cause halitosis, suppression of the flow of urine. Cystitis or certain types of chronic diseases of the kidneys which may be the cause of uremia are responsible for an ammoniacal odour in the expired air of the patient; moreover, marked chronic constipation may at times give rise to faecal odour of the breath.

7. Bad breath arising from the presence of absorbed drugs and poisons:—

Arsenical compounds, bismuth preparations, salvarsen and aresphenamin produce definite garlic-like odours in the expired air. Chronic lead poisoning causes a peculiar sweetish metallic odour from the oral cavity which has given rise to the synonym "lead breath", a condition known centuries ago as "Halitus Saturnius". Temporary impregnation of the expired air is always definitely observed after poisoning with phenol, lysol, laudanum and other drug compounds. Severe burns characterized by "Carbonization" of muscle tissue are at times productive of an odour from the expired air, resembling that of carbon disulphide.

8. Bad breath arising from foods, condiments and stimulants:—

Protein substances like cheese and cooked eggs when left about the teeth in the form of debris are ready sources of hydrogen-sulphide formation. The odour from fresh onions may remain from ten to twelve hours; while cooked onions give off a less persistent odour, because the odorous principle has been partially destroyed by heat. Garlic seems to possess the most persistent residual odour of any substance used as a condiment. In an adentulous mouth, the odour of the garlic or the onion is less persistent, the smooth mucous membrane does not absorb the essential oil of these spices in the same manner as the crevices and deposits about the filthy or decaying teeth. Other spices such as cloves, cinnamon, ginger etc. impart odours to the breath for a relatively short time only. Of the various stimulants, alcohol in the form of whisky or wine impregnates the breath for a prolonged period of time. Alcohol beverages are readily recognized by their characteristic odours. The odour arising from the use of tobacco places this universally employed stimulant next in order of food debris as a cause of halitosis. In an unclean mouth which is frequently present in the habitual tobacco user, the stale odour remains for many hours (incidentally also about the fingers and in the clothing) since the tarry deposited about the teeth embody the odorous principle i.e. nicotine, pyridine, ammonia etc. Opium as used by the habitual smoker causes a persistent musty odour of the breath.

9. Prophylactic measures and treatment:

Since malodours arising from the mouth are merely symptoms of some local or general disturbance, it is but natural that before treatment is undertaken, their cause, if possible should be ascertained. As pointed out, it is safe to assume that the origin of the odour may be looked for in the mouth proper in over 90% of cases. Prophylactic care of the oral cavity by the dentist, combined by intelligent co-operation by the patient with paste or powder, the brush and an antiseptic mouth-wash will eliminate the offensive odour in the

majority of cases. If a heavily coated tongue is present, the tongue scraper should never be used. In case of malodours arising from putrefactive products located between the deep sulci of a grooved tongue, Boas recommends the following treatment: about twenty drops of a 2% solution of vanillin in diluted alcohol (50%) are added to about one ounce of warm water, the tooth-brush is dipped in this solution and passed over the tongue surface in a downward direction. This treatment is applied twice a day until the symptoms are relieved. If a diseased condition is present in the mouth, proper care by the dentist and the physician is essential. Wounds and ulcers require frequent use of an antiseptic (deodorizing) solution. If the odour arises from any of the various general diseases as discussed above, the medical or dental practitioner may be able to suggest the necessary remedy for the elimination and the prevention of its return. The disagreeable odour arising from the administration of an organic arsenical compound or from some other source may be covered up by sucking a peppermint lozenge. Occasionally a hysterical woman may complain of imaginary odours arising from her mouth i.e. parosmia. On the other hand, a genuine case of dementia praecox, or

hemicrania etc. may be responsible for a definite odour.

In rare cases however it may be found that all efforts to locate the cause of halitosis are futile. Tigerstedt cites two such cases. The odour arose from nasopharynx which had resisted all types of treatment. He recommended the smoking of cigarettes which were lightly impregnated with a solution of one part of thymol in six parts of alcohol with the smoke blown through the nose. The offensive smell was thereby completely masked for several hours.

In addition to the above suggestions, general hygienic care by the patient, plenty of sleep, fresh air and frequent bathing, together with well-balanced diet, may serve as beneficial adjuncts in obtaining results, as desired.

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—Courtesy, Medical Digest.

THE MONTH'S SAYINGS OF OUR WISE MEN (adapted into Biblical English).

Mr. R. K. Shanmukham Chetti:

I will praise the Government with my whole heart, in the assembly of the musicians and in the congregation of music lovers: They have given land unto us that need them, that we may build thereon a temple for the muses.

Mr. M. Bhaktavatsalam:

And I beseech ye, that ye may receive the grace of God in lasting abundance, to succour the Government in executing the diverse development projects by giving bountifully of all that ye remain possessed, rejoicing in the glory of God and the peace of man—for as much as we need money and ye need our service, and we are both to tax you and ye are loth to pay us, arm yourselves with suffering that, when our glory be relieved, ye may be glad also with exceeding joy.

Mr. P. S. Kumaraswami Raja:

Verily, verily, I say unto thee that whatsoever thy educational attainment be, or howsoever wealthy thou mayest be, they shall be wasted and withered unless thou join them with hard work and integrity. For, that which is highly esteemed among men is abomination in the sight of God.

Dr. Lakshmanaswami Mudaliar:

Harken not unto the people that enjoin ye to build more colleges for ye shall find yourself laden with inefficiency. But if they be prophets and if the word of Lord be with them, let them now make intercession to the Lord of hosts that the colleges which are left in your midst go not into decay and disgrace through neglect, poverty or inefficiency.

COMBATING THE DANGER OF INFECTION IN AIR

by

Dr. Trevor I. Williams

Deputy Editor of the Scientific Journal "Endeavour"

The air around us, though essential for life, can also be a serious menace to health . . .

THAT the air around us is essential for life is self-evident; that it can also be a serious menace to health is much less generally appreciated because the danger is invisible.

The danger can come from many directions. In certain conditions the air may contain poisonous gases; the development of atomic energy research stations in many countries has brought with it the risk of dangerously radio-active dust being blown about unless elaborate precautions are taken. Above all, the air always contains a floating population of microbes which may prove a serious risk of infection.

The danger of carbon monoxide poisoning is generally known; for, this very noxious gas can find its way into the air from many sources and fatalities still occur all too frequently. Even as little as one part of carbon monoxide in 100 parts of air may overcome an active person in a few minutes; because it is colourless and odourless it is not easy to detect. Quantities of the gas may be formed in many common operations. In the home it may result from a defective geyser or the exhaust of a car left running in a badly ventilated garage. In industry it may be formed in foundries, gas works, and coke-oven plants. In coal mines—as "after damp"—it may endanger those who first enter a pit where an explosion has occurred.

To counteract the risk of carbon monoxide poisoning—especially in industry—Britain's Department of Scientific and Industrial Research in London, has developed a simple new method for detecting the gas. It is based on research carried

out at the Royal Aircraft Establishment at Farnborough during World War II. In the new test, air is drawn through a tube containing a chemical reagent. If carbon monoxide is present, the reagent becomes coloured, the depth of the colour being a measure of the amount of gas present.

Main Lines of Research

Research initiated by the Medical Research Council in Britain during the war has also led to important discoveries affecting public health. The research was prompted by a fear of epidemics, caused by airborne infections, resulting from the abnormal conditions of war. The devastating influenza epidemic which followed World War I was a reminder of what might occur.

This research followed three main lines. First, it was necessary to devise accurate methods of sampling the air and identifying the number and nature of the germs floating in it. Then the samples had to be taken under a wide range of conditions to see how overcrowding and other factors affected the number of dangerous germs present. Finally, practical methods had to be worked out for sterilizing the air if its microbe population was dangerously high.

Although germs are so small that they can be seen only with the aid of powerful microscopes and are normally present to the extent of only a few in every cubic foot of air, their detection is not particularly difficult. The most satisfactory method is to suck air at high speed through a slit and let it impinge on some sterile nutrient material, generally in the form of a jelly. When the latter is incubated at blood-heat,

each invisible germ which has fallen on it multiplies to form a visible colony. Thus by counting the number of colonies and dividing by the number of cubic foot of air drawn into the apparatus, the average number of germs in the air can be calculated.

Germ Population

Field trials showed that the germ population of the air varies enormously. For example, in any ordinary bedroom for two people, the number of germ-carrying particles during night rarely exceeds five per cubic foot. In the morning, however, when the bed is made, curtains drawn, and so on the count soars up to well over 100.

Much the same applies to a normal living-room. When not in use the count is about three or four. When meals are served, it jumps up to about 50 or 60; sweeping the floor sends it up nearly to the hundred mark. In crowded rooms much higher counts have been recorded. In a barracks more than 1,000 infected particles per cubic foot have been found. A surgical ward in a hospital often produces between 100 and 200.

These tests, and analyses of the nature of the germs found, make it possible to lay down standards for the degree of airborne infection which should be tolerated in various circumstances. In general, an ordinary room should not give a germ count

of more than 50. In an operating theatre, however, not more than 10 should be permitted; if burns are being dressed or brain injuries treated, a count greater than two should not be tolerated.

Making the Air safe

If the air is more heavily contaminated than these limits, tests have shown various ways in which it can effectively be made safe again. Good ventilation and plenty of sunlight are often remedy enough, but in winter neither may be feasible. Forced ventilation in which the air is heated to 220°C. is highly effective; at this temperature even the most resistant germs are killed. If this is not practical, various sprays are effective, though experiment shows that many substances commonly used for this purpose are quite useless or even dangerous because they irritate the lungs and air passages rendering these unusually liable to infection.

The most effective sprays proved to be hypochlorous acid cheaply and abundantly available lactic acid (available from milk processing factories) and a chemical known as triethylene glycol. Dust control is particularly important; many ordinary methods of cleaning, such as sweeping with a dry brush, stir up clouds of germ-laden dust. Dust-laying substances, such as spindle oil, are very effective and vacuum-cleaners are much preferable to brooms.

DESIGN OF DWELLINGS

The House Designs Committee of Madras State, after taking into consideration all principles governing health and sanitation, climatic conditions obtaining in the State, and above all, the living conditions of South Indian families, decided that the age-old conventional court yard design of dwellings is the best. This design is a challenge to modern hygienists.



"Books are Weapons in the War of Ideas." Some Books are to be tasted, others to be swallowed and some few to be chewed and digested".....and some to be eschewed!

Name: MALARIA AND ITS CONTROL IN BOMBAY STATE.

Author: Dr. D. K. Viswanathan,
Connaught House, Poona 1.

Size: 8½" by 5½" Pages: 263

Price: Not stated.

The author has prepared seven sections each with a few sub-sections making twenty-four in all on the subject of malaria and its control in Bombay. The book is based on his personal and intimate experiences in every phase that is dealt with. The record of a State organisation starting from scratch in 1942 to have achieved a high degree of malaria control for a population of 9 millions in 1950 is indeed a tribute to the personality of the author and his persuasive ways with the administrative authorities in the State to get their active co-operation.

The book is eminently practical and is admirably written to serve as a work of reference to the practical malariologist in the tropics as well as those employed in field research. To the student and the teacher of malariology, the book offers a mine of information of examples of how practical malaria control can be achieved under conditions which were considered extremely difficult up to now, especially in India.

Many, both at home and abroad, have felt the lack of any connected document of malaria control in India. This is the first clear one of its kind from this country which gives a lucid account of the subject

in relation to at least one particular State. The author has given a lead in the matter of analytical documentation of this important field of Public Health in India, as he has in the past given leads in the practical aspects of the subject.

Section one of the book deals with that most important, often neglected part of a malaria control project, that of organisation and administration. The gradual evolution of the organisation from strength to strength as well as in popularity both with the people whom it serves at one end, and with the administrative authorities at the other, who have to be convinced from time to time of the need of its retention and expansion, is brought out very clearly.

Section II deals with the activities of the organisation before the advent of D.D.T., during a period when the organisation investigated the epidemiology of the disease in great detail in the South Kanara District. The sub-section on the behaviour of the star vector in the State, *A. fluviatilis*, is perhaps the most thorough discussion of the bionomics of any vector species in India. The author's conclusions that the species is a complex with cryptic biological strains and the indication for further investigations are noteworthy. The experimental rural malaria control measures in Kanara District during the pre-D.D.T. period dealt with in sub-section 8 is a tribute to the author's alertness and the critical analysis of his own data which led him to conclude that the vector was peculiar in its resting habits. His further

study of the situation and evolving a periodicity for spraying pyrethrum formulations to defeat the vector, is unique as evidenced by the degree of malaria control achieved by the spraying of pyrethrum for 2 days followed by a sprayless day and two days spraying by two sprayless days respectively.

Sub-section 6 deals with the study of malaria in infants. The author has had an intimate knowledge of this most accurate available index of malarimetry and the difficulties of collecting this index and its implications are lucidly described.

Sub-section 7 gives an account of field experiments in chemotherapy of malaria, carried out with Proguanil. The confirmation that mass treatment of rural population for purposes of malaria control is not a feasible method, is clearly discussed. The unfortunate teaching that premunition to malaria in the hyper-endemic tropics should not be disturbed is shattered by convincing arguments, and the need for the use of radical cures by means of the newer antimalarials in malaria controlled areas is emphatically brought out.

Sub-section 9 is a very important one and deals with applied research which every practical malariologist has to continuously pursue and the utilisation of the results of such researches to the betterment of the health activity in which he is concerned. This section summarises the investigations undertaken by the organisation from time to time in elucidating practical problems.

Section III deals with the control of malaria with D.D.T. in Kanara District by way of pilot experiments and its rapid extension to other districts and urban areas in the State. The section is intensely practical and is valuable as a source of ready reference for intimate practical details in malaria control as to technique of spraying D.D.T. formulations, organisation, and evaluation of results.

Sub-section 13 deals with analysis of vital statistics in the malaria controlled

areas in comparison to those of the whole State. The proof that malaria control has produced a reduction in total deaths and increased the total births, in a sparsely populated malarious tract is convincing. The arguments in favour of the need for increasing the population in these regions with great potentialities is a timely answer to the unfortunate recent trend of opinion in certain quarters which takes a pessimistic attitude of the possibilities of an increased population with a loss of immunity to the disease in malaria controlled areas.

Sub-section 14 deals with useful comments on the use of D.D.T. as a general public health measure in addition to malaria control. The collateral benefits of absolute plague prevention in D.D.T. sprayed areas is spectacular. Whether the observation of one or two years are sufficient to provide conclusive evidence on the value of D.D.T. in plague prevention, can only be decided by the continuous use of this method with concurrent collection and analysis of the relevant epidemiological data. It is encouraging that the flies in the State have shown no predilection to the persistence of possible D.D.T. resistant strains after four years of continuous D.D.T. spraying.

Section IV deals exclusively with urban malaria control in Greater Poona. It is an often repeated sad story in relation to public health activities of the estimated budget apparently being large, being the cause of repeated postponement of its sanction. The provocation of one individual high up in social status and authority, personally suffering, was the stimulus that precipitated malaria control in the city. The exploitation of the situation by the Bombay Malaria Organisation is admirable, and gives a pointer in technique to the practical malariologist. The proposed integration of successful antilarval measures for malaria control and D.D.T. indoor residual spraying for plague prevention in the urban area of Poona, should give interesting and valuable results in the control of insect-borne diseases.

Section V deals with detailed malaria surveys and the epidemiology of malaria in different districts of Bombay State. It is heartening that the State has under active consideration or has already sanctioned schemes for malaria control resulting from the surveys. If the State Public Health administration proceeds with the same speed that has been its characteristic so far, then truly there will be no excuse for other States and authorities in India to hesitate to follow the brilliant and successful lead in the field shown by Bombay State.

Section VI is an apt synthesis of the foregoing sections and deals with future plans and aspirations based on the rich and successful experiences. It is heartening once again to note that mosquitoes in the State of Bombay are not fastidious, as for instance *A. gambia* elsewhere in the matter of response to either of the two widely used synthetic insecticides (B.H.C. and D.D.T.).

The author who is an accredited expert in the field has been closely and intimately associated with problems of malaria in

general and those in Bombay in particular. It is evident that he has given much thought not only to the minute details of malaria, its prevention and the organisation and administration required for it, but also to the larger aspects of it as a major public health and humanitarian problem and the ways and means for its solution.

The book itself could have been got up better. The printing errors and those of spelling are minimal and could be easily rectified in subsequent editions. A serious drawback is the absence of bibliography. The author has drawn from his own numerous technical publications as well as those of others. While it may be comparatively easy for the Indian malariologist to lay his hands on the publications made use of in the book, it is felt that it may not be so for malariologists working in other parts of the world.

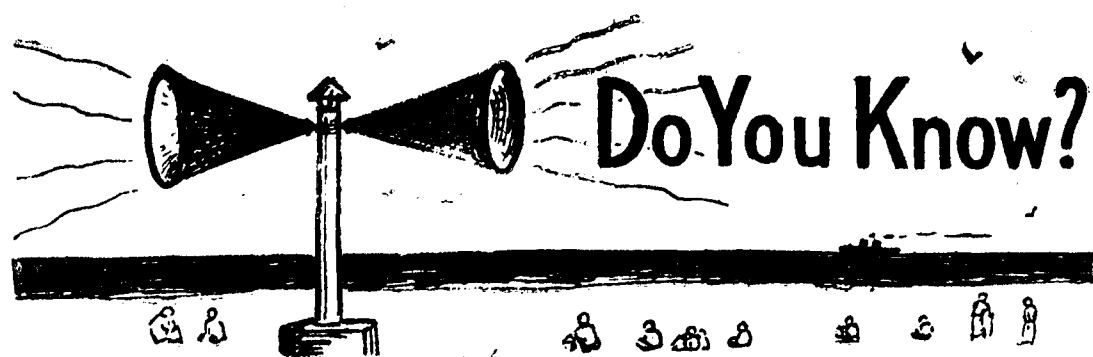
S. P. Ramakrishnan,

4-1-'51.

The Malaria Institute of India,
DELHI.

THE PRIDE OF MADRAS

Hon. Sri M. Bhaktavatsalam deserves to be patted on the back for his efficiency. An efficient Minister is one who has for his departmental heads, men of worth; and under Sri Bhaktavatsalam are two of the State's best officers—Sri G. Sundaram, Head of the Electricity Department and Sri M. S. Thirumale Iyengar, Head of the Highways Department. These two departments have developed a healthy rivalry between them, and vie with each other for honours. It is a close race and the Highways Department is fast approaching the Electricity Department that had a lead already. Sri Sundaram is an officer of outstanding capacity and has been carrying on the good work of his predecessor and former Chief, Sir Henry Howard. Sri Thirumale Iyengar's excellent work has been unostentatious. As if to tell us at last what the Highways Department has achieved, he has just published a brochure entitled "Madras State Highways". This is an attractive booklet and facts are presented graphically, neatly and unobtrusively. The brochure should make every one in the State proud of his roads—practically the best in the land. Yes, it is a neck-to-neck affair between the Highways Department and the Electricity Department. But whoever wins, Sri Bhaktavatsalam can be happy. If one child scores over another, a parent doesn't mind!



What is Starch?

By far the largest proportion of carbohydrate in human food occurs as starch. Starch is the form in which plants store the major part of their food reserves. More than half the solid material in cereal grains and in potatoes is consequently made up of starch. Unripe apples and bananas also contain starch which changes into sugar as the fruits ripen.

Starch is composed of a large number of glucose units, chemically combined. In the form in which it occurs in, say, potatoes or flour, the actual starch is enclosed within granules. These granules can easily be seen with a microscope and differ in appearance, depending on the source from which they are derived. Starch granules cannot easily be digested; consequently flour, potatoes and other materials containing starch cannot be used as food, raw. When, however, they are heated in water, the granules swell until they burst and the starch is released.

—Food and Nutrition.

Who invented Printing?

People often say William Caxton; but the Chinese used a form of printing at least four hundred years before William the Conqueror's time. John Gutenberg was the first man to print by means of separate letters put together to form words. Caxton set up the first press in England.

Coffee and Tea—Their Influence on Sleep

Q.—Do tea and coffee keep us awake?

A.—Both tea and coffee contain a stimulating substance. In tea the substance is

called theine, and in coffee caffeine, but theine and caffeine are chemically almost the same, and their effects are practically the same.

These substances appear in some mysterious way to stimulate the brain and prevent it from becoming drowsy. Their effect in this way varies in individuals, but probably in most cases strong tea or coffee tends to hinder sleep. In themselves they are not harmful in moderation; but if they prevent sleep then, of course, they do harm indirectly. Moreover, if taken for the purpose of banishing sleep, the result not infrequently is that a condition of chronic sleeplessness is produced.

—Children's Encyclopedia.

What is an Ellison's Ventilator?

This ventilator consists of bricks which are each pierced with conical holes, the apex of the hole being towards the outer air. Thus, air coming through the wall becomes distributed and draught is diminished.

Why Does a Baby Destroy Its Toys?

There is no doubt that some instinctive and not a reasoning force urges a baby to destroy its toys. Probably, the baby wants to know how the toy is made and of what it is made. Naturally, a good way to find out is to pull the thing to pieces and this is what it invariably does. Clearly, the child should not be prevented from following its bent, since the destruction is merely a way of acquiring knowledge and experience, of finding out, little by little, the things it wants to know.

Value of Honey.

Taking of one tola (three drachm) of pure honey mixed in a cup of water at bedtime brings good sleep and a free motion in the morning. This is very good for noisy children who sleep late at night.

How to Store Eggs.

Here are a few tips for the housewife for storing eggs. Eggs are stored best with clean shells. The soiled spots on the shells should therefore be wiped with a damp cloth before storage. However, eggs should not be washed until just before use because washing removes the protective film or "bloom" which seals the pores of the eggs and thus helps to keep out bacteria and bad odours. Eggs should be stored in a covered vessel or bowl, away from strong-smelling foods. Without a cover, eggs are bound to lose moisture faster and thus are more liable to absorb outside odours. Eggs should always be stored in a cold place, preferably in a refrigerator.

To What Extent Are The Following Statements True?

(a) Buffalo milk is very tasty and full of cream but it causes one to lose one's mental sharpness and makes one dull-headed.

(b) Cow's milk is good but not so tasty as buffalo's and is less in cream content. Cow being an intelligent animal, cow's milk makes one mentally sharp and improves memory; but at the same time there is a constant danger of its being contaminated with T.B. germs, especially if the animal is affected with Bovine Tuberculosis.

(a) This is not based on any scientific data.

(b) Buffalo's milk is generally richer in fat content than cow's milk.

The method of drinking milk after boiling, which is usually followed in this country, safeguards against T.B. and other infectious diseases. Boiling destroys T.B. organisms. As a rule, however, milk drawn

from an animal affected with T.B. should not be consumed.

Why Do We Sneeze?

A.—A fly settles on your face and you drive it away, immediately, with a movement of the hand. Something tickles your nose and you scratch the irritated part. Any discomfort from which your skin may suffer is quickly dealt with in some such appropriate way. The air passages of the nose and throat are particularly sensitive and are liable to a tickling or other unpleasant feeling; but these parts are beyond the reach of the hand and you cannot scratch them. Therefore, nature has provided a method of overcoming the trouble when it arises. If the air passages commence to tickle, you sneeze and this outward burst has the effect of dispelling what caused the discomfort.

Waterless Cooking and Stainless Steel

Q.—What are the chief advantages of waterless cooking and is stainless steel the best metal for this kind of cooking ware?

A.—The term "waterless" must be taken with a certain amount of water in most instances. A more exact statement would be the use of as little water as possible. Although some vegetables contain enough water for cooking, the majority require the addition of a fraction of an inch of water. When large amounts of water are used, cooking takes longer, heating costs go up and, in many instances, there is a greater loss of vitamins. Most cooks prefer to use as little water as possible in order to preserve the shape of vegetables. So-called waterless cooking has advantages as a fuel, vitamin, time and appearance saver.

Stainless steel has no advantages over other types of cooking ware. Because its bright surface tends to reflect heat, it may be advisable to darken the bottom of such utensils permanently. Stainless steel is a poor conductor of heat, and this may result in uneven cooking. Attempts have been made to eliminate this problem by adding a copper bottom to the pan.

—Today's Health.



*Wit's an unruly engine, wildly striking,
Sometimes a friend, sometimes the engineer.*
—George Herbert.

Tomatoes.

Tomatoes were formerly known as "love apples", from their supposed aphrodisiac qualities an interesting fact probably related to their high vitamin content.

The composition of tomatoes is a little disappointing at first, for, it appears, upon analysis, that a hundred pounds of tomatoes contain rather more than ninety pounds of water!

It is the peculiarly health-promoting attributes of the tomato that constitute its value. Its pleasantly sharp flavour is derived from wholesome citric and malic acids, and the very water not only holds the valuable elements in ideal solution, but gives the tomato its refreshing quality.

Sunshine and tomatoes are inevitably related, and those whose concern it is to cultivate and study the growth of tomato vines arrive, in the course of time, at the conclusion that tomatoes are solidified sunbeams.

—Ivan Baker.

Passion for Comprehension.

There exists a passion for comprehension, just as there exists a passion for music. That passion is rather common in children, but gets lost in most people later on. Without this passion there would be neither mathematics nor natural science.

—Albert Einstein.

Mark it with skull and bones.

A man walked into a grocery and handed the assistant a paper containing some white powder.

"I say," he said, "what do you think that is? Just taste it and tell me."

The grocer smelled it, and then touched it with his tongue.

"Well, I should say that it is soda."

"That's just what I said," was the triumphant reply. "But my wife said it was rat poison. You might try it again to make sure."

First place to ask

Insane Asylum Attendant: "A man outside wants to know if we have lost any male inmates."

Doctor: "Why?"

Attendant: "He says someone has run off with his wife."

Reducer

"I believe you are thinner than the last time I saw you, Mrs. Smith. Are you taking treatments or dieting?"

"Oh, no, that's only because of the trouble I have with my new maid."

"Why don't you fire her?"

"I'm going to. Just as soon as she worries me down to 140 pounds, I'm going to order her out of the house."

Laughter.

Laughter—free, wholesome, unrestrained—is the best and quickest—acting tonic man has ever found. It picks him up. It keeps him young. It keeps him fit. It keeps him from going mad in times of stress. Sometimes it keeps him from war.

The Eskimos, for example, deliberately employ laughter in peace negotiations. When alien chiefs meet, comic representations are staged. If hearty laughter ensues, friendly relations are at once established.

We work on the same principle when, on being introduced, we smile; then try to think of something amusing to say in order to laugh.

Laughter raises the blood pressure when it is too low; likewise speeds up circulation, relieving congestion particularly in the brain, strengthens the lungs because of the deep breathing exercises you do automatically when you laugh, and releases pent-up energies.

—Wilson Chamberlain

Health, A Blessing.

Look to your health; and if you have it, praise God, and value it next to a good conscience; for health is the second blessing that we mortals are capable of; a blessing that money cannot buy.

—Izaak Walton

Late News.

A bandsman in the army, reported sick, with a sore throat.

The medical officer said: "Your throat is very inflamed. . . You'd better not do any band practice for, at least, a month."

The bandsman told the bandmaster, who said:—"You'd better go on a month's leave. . . You'll be no use here."

So, the bandsman went on a month's leave.

When he returned, he saw the medical officer again.

The medical officer said:—"Let's see your throat'.

He looked at it and said:—"Yes. . . Definitely better. . . I think you can carry on with band practice again now!"

The man got right near the door of the inspection room, and the medical officer said:—"By the way. . . What instrument do you play?"

Without a smile, the man replied:—"I'm the SOLO DRUMMER, SIR."

—L. Webb.

Guess Work.

. . . At best they (doctors) do but guess, and I am persuaded most of them dissemble their opinions and comply with the patient's desires, and their own profit.

—Sir John Brampton.

A Healthy Idea

In all affairs—love, religion, politics, or business—it is a healthy idea, now and then, to hang a question mark on the things you have long taken for granted.

—Bertrand Russell.

In Court

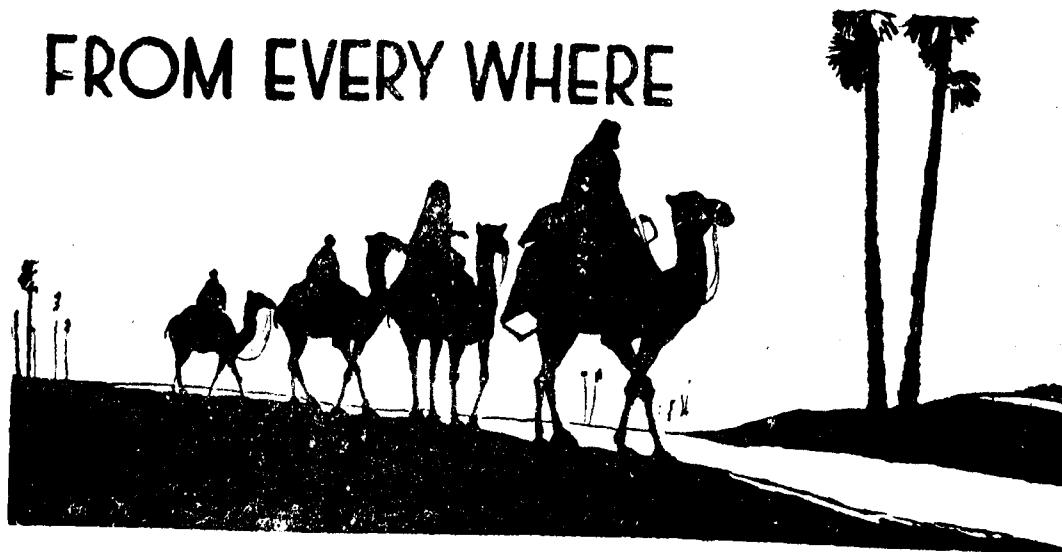
Constable: I told the motorist his car had caused an obstruction outside the cemetery and he replied "That's my funeral!"

His Only Wish

Give me what I have or even less; and therewith let me live to myself for what remains of life, if the gods will that anything remain. Let me have a generous supply of books and of food stored a year ahead; nor let me hang and tremble on the hope of the uncertain hour. Nay it is enough to ask Jove who gives them and takes them away, that he grant life and subsistence; a balanced mind I will find for myself.

—Horace.

FROM EVERY WHERE



WHAT DO THEY SAY ABOUT IT?

Readers can contribute to this section. They are requested to send extracts of current literature which, in their view, would interest the readers.

—Ed., P.H.

Don't Tolerate this

Any person who may be served a dirty or unclean drinking utensils while patronising a public eating establishment, should return it and complain to the management about the condition in which it was received and demand to have it rewashed before accepting it. There is no reason whatsoever for these conditions to exist and they should not be tolerated.

—Ross of Somerville,
New Jersey.

Answer to Good Food Sanitation

It lies in the teaching of clean habits to children. It is much easier to instil clean habits in children when their minds are receptive than to persuade adults with dirty habits to change them.

The public can help in a clean food campaign by refusing to accept unclean crockery in a cafe or restaurant or by reporting dirty methods which they have observed to the Public Health Department.

Dr. W. B. Stott,
Medical Officer, London.

Differences between our A.O. and BCG of France

A-O is an immunizing agent made of S-form bacilli and has nothing to do with the R-form bacilli. A-O, therefore contains no poisons and will cause no allergy. It can be used to those unaffected for the preventive purpose and to those affected for the therapeutical purpose.

A-O is easily absorbed within the human body and causes no ill-effect. It is made of dead bacilli and is safe to use. In addition, its potency is experimentally tested and is fixed.

A-O has an outstanding characteristic in that it is a mixture of human type S-form bacilli of various strains and is effective against tuberculosis of different origins.

BCG, being the R-form bacilli, works as an allergifying agent. The BCG vaccination, therefore, turns the tuberculin reaction into the positive but this cannot be considered a direct proof of immunity for the reason already mentioned.

BCG injection is a taboo to anyone who is more or less affected by tuberculosis, because it causes severe side actions.

What Do They Say About It?

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BCG is the R-form tubercle bacilli of the bovine type. It is a consensus of expert opinions that the human type is suited to a human body and the bovine type to the cattle but, strangely enough, the BCG group of scholars appear to lend deaf ears to the opinion.

BCG is not avirulent though the virulence is only slight. BCG should be alive in order to display its immunizing faculty and there is no guaranteeing that it is entirely dangerless to the recipients.

It is theoretically justifiable that BCG, monovalent vaccine of bovine type, could hardly work as an immunizing agent against the human-type bacilli. Even apart from this discussion, BCG to be used only to those unaffected but never to those already affected by tuberculosis is therapeutically of no effect as the BCG scholars themselves admit.

In short, the difference between A-O and BCG represents the difference between the S-form and the R-form bacilli, each having the characters of its own.

By Keiji Aoyama, M.D.,
Director of Arima Institute, Osaka, Japan.

Fly Control Techniques

(Joseph H. Coffey & Paul P. Maier
American Jour. of Public Health, (May 1950).

Procedures used by the Communicable Disease Centre, PHS, to reduce flies in any community are: (1) Improvement of sanitation practices, (2) screening, (3) application of residual sprays to selected fly resting surfaces, (4) application of larvicides in selected sites, and (5) broadcasting of space sprays over extensive areas. While these methods may reduce flies to near the vanishing point, they are quite expensive but the level can be brought down to a Scudder grill range of 4 to 10 at a reasonable cost. Screening affects the fly population little but reduces the fly-human contact. Residual application of DDT (or methoxychlor for dairy barns, chlordane for DDT-resistant flies) to interiors and to outbuilding exteriors causes fly reduction. DDT is still best and should be applied at

200 mg/sq. ft., using 5 per cent solutions emulsions or suspensions. In cities, spraying of garbage cans and the walls, fences, or vegetation immediately surrounding is desirable. Exterior treatment gives erratic results. The addition of ten per cent pine gum rosin to a 25 per cent DDT-xylene concentrate increases adhesiveness of sprays and the duration of effectiveness. Larviciding with emulsions of 2-4 per cent chlordane at 50-100 mg. of toxicant/sq. ft. of surface is usually restricted to locations of heavy larvae abundance. Exterior space spraying with mists or fogs is effective in destroying adult flies which escaped control by residual or larvicidal methods. It gives only temporary relief and must be repeated at intervals of 1 day to 2 or 3 weeks. A 5 per cent DDT emulsion applied at 0.4 lb. DDT per acre is recommended for dispersal in fine droplets (20-100 u.).

Improved environmental sanitation is required, as the expense of chemical fly control alone is prohibitive. This includes improved methods of storage, collection and disposal of fly-breeding wastes from homes, commercial establishments and industry. Experiments in Hidalgo County, Tex., proved the role of flies as transmitters of diarrheal diseases so that fly control is justified from both health and nuisance aspects. The garbage and refuse storage, collection and disposal facilities require immediate attention if flies are to be controlled economically.

—John S. Wiley.
—P. H. Engg. Absts.

Science and Civilization

The attitude which the man in the street unconsciously adopts towards science is capricious and varied. At one moment he scorns the scientist for a highbrow, at another anathematizes him for blasphemously undermining his religion; but at the mention of a name like Edison he falls into a coma of veneration. When he stops to think, he does recognise, however, that the whole atmosphere of the world in which he lives is tinged by science, as is shown most immediately and strikingly by

our modern conveniences and material resources. A little deeper thinking shows him the influence of science goes much farther and colors the entire mental outlook of modern civilized man on the world about him. Perhaps one of the most telling evidences of this is his growing freedom from superstition. Freedom from superstition is the result of the conviction that the world is not governed by caprice, but that it is a world of order and can be understood by man if he will only try hard enough and be clever enough. This conviction that the world is understandable is, doubtless, the most important single gift of science to civilization. The widespread acceptance of this view can be dated to the discovery by Newton of the universal sway of the law of gravitation; and for this reason, Newton may be justly regarded as the most important single contributor to modern life.

—Percy Williams Bridgman.

—The NTA Reporter.

Science and Religion

The soft-hearted, the muddleheaded, the superstitious are all raising their voices, no longer in desperate resistance to science, but hopefully, and in its name. Science, they tell us, is no longer hostile to religion, or to divination of any sort. Indeed, divination is a science, too. Physics is no longer materialistic since space is now curved, and filled with an ether through which light travels at 300,000 kilometers per second—an immaterial rate. All this I find announced in newspapers and even in books as the breakdown of scientific materialism; and yet, when was materialism more arrant and barbarous than in these announcements? Something no doubt has broken down; but I am afraid it is rather the habit of thinking clearly and the power to discern the difference between material and spiritual things.

—George Santayana

—The NTA Reporter.

Tobacco Smoking

Excessive and prolonged use of tobacco, especially cigarettes, seems to be an im-

portant factor in the induction of bronchiogenic carcinoma.

Among 605 men with bronchiogenic carcinoma, other than adenocarcinoma, 96.5 per cent were moderately heavy to chain smokers for many years, compared with 73.7 per cent among the general male hospital population without cancer. Among the cancer group 51.2 per cent were excessive or chain smokers compared to 19.1 per cent in the general hospital group without cancer.

The occurrence of carcinoma of the lung in a male non-smoker or minimal smoker is a rare phenomenon (2.0 per cent).

Tobacco seems at this time to play a similar but somewhat less evident role in the induction of epidermoid and undifferentiated carcinoma in women. Among this group a greater percentage of non-smokers will be found than among the men, with 10 of 25 being non-smokers.

Ninety-six and one-tenth per cent of patients with cancer of the lungs who had a history of smoking had smoked for over twenty years. Few women have smoked for such a length of time, and this is believed to be one of the reasons for the greater incidence of the disease among men today.

There may be a lag period of ten years or more between the cessation of smoking tobacco and the occurrence of clinical symptoms of cancer.

Ninety-four and one-tenth per cent of male patients with cancer of the lungs were found to be cigarette smokers, 4.0 per cent pipe smokers and 3.5 per cent cigar smokers. This prevalence of cigarette smoking is greater than among the general hospital population of the same age group. The greater practice of inhalation among cigarette smokers is believed to be a factor in the increased incidence of the disease.

The influence of tobacco on the development of adenocarcinoma seems much less than on the other types of bronchiogenic carcinoma.

Three independent studies have resulted in data so uniform that one may deduce the same conclusions from each of them.

—J. A. M. A.

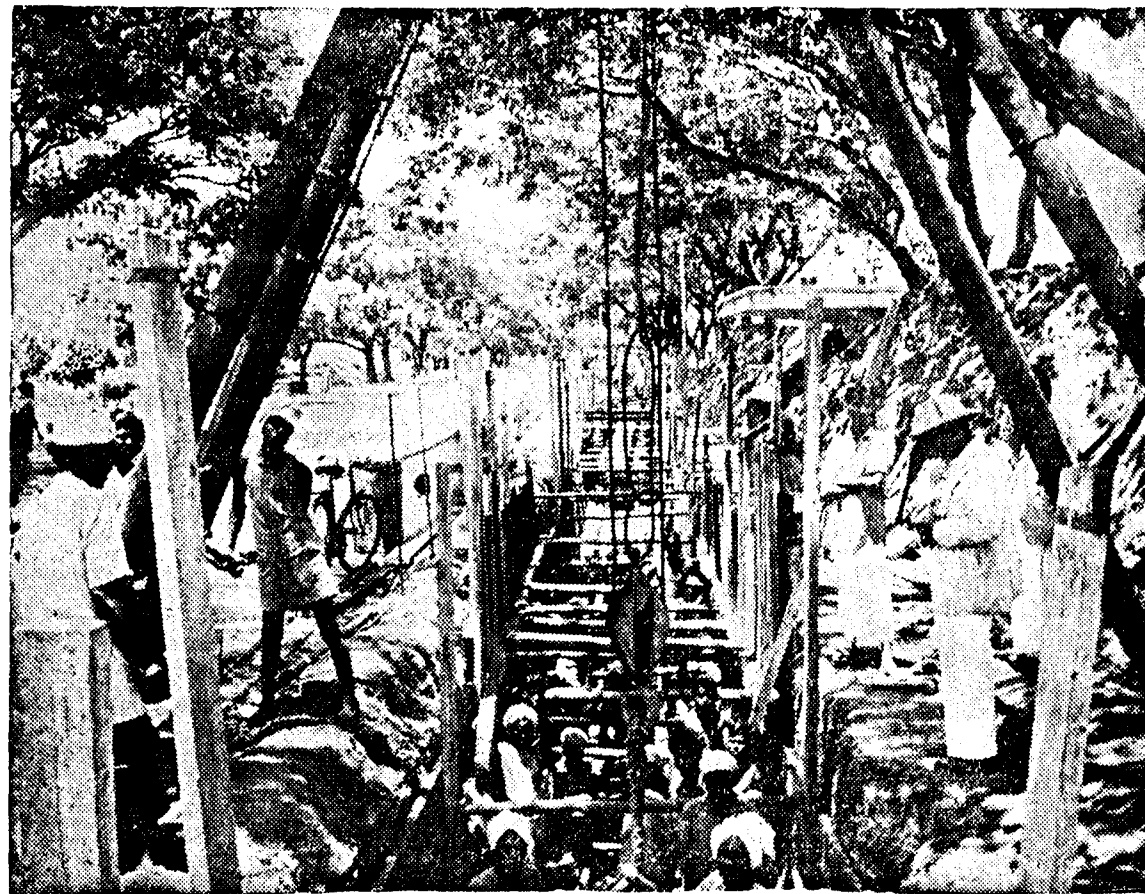
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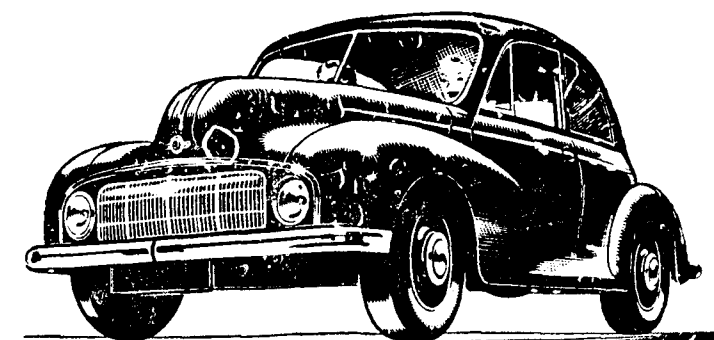
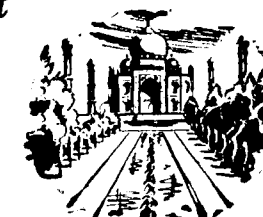
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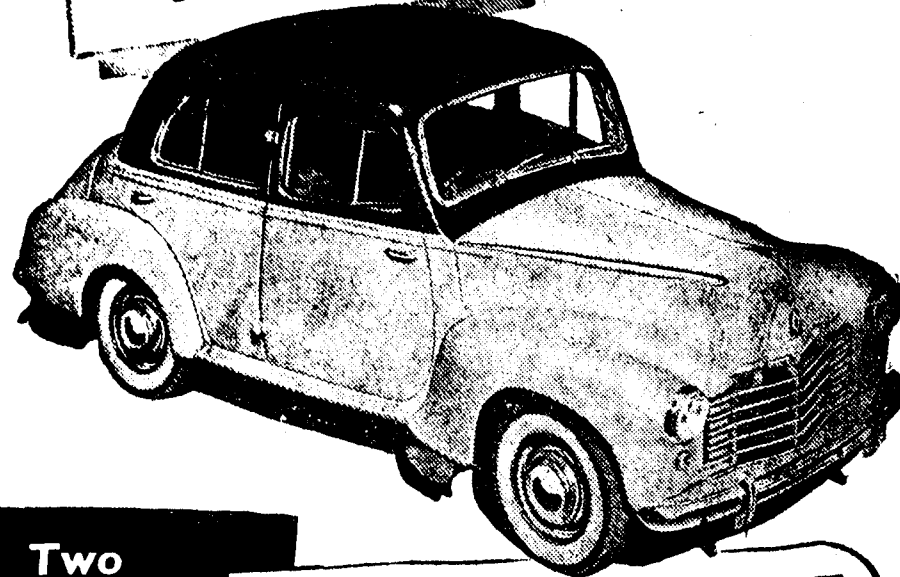
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