PEOPLE'S HEALTH

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A Pioneer in the Field of Public Health

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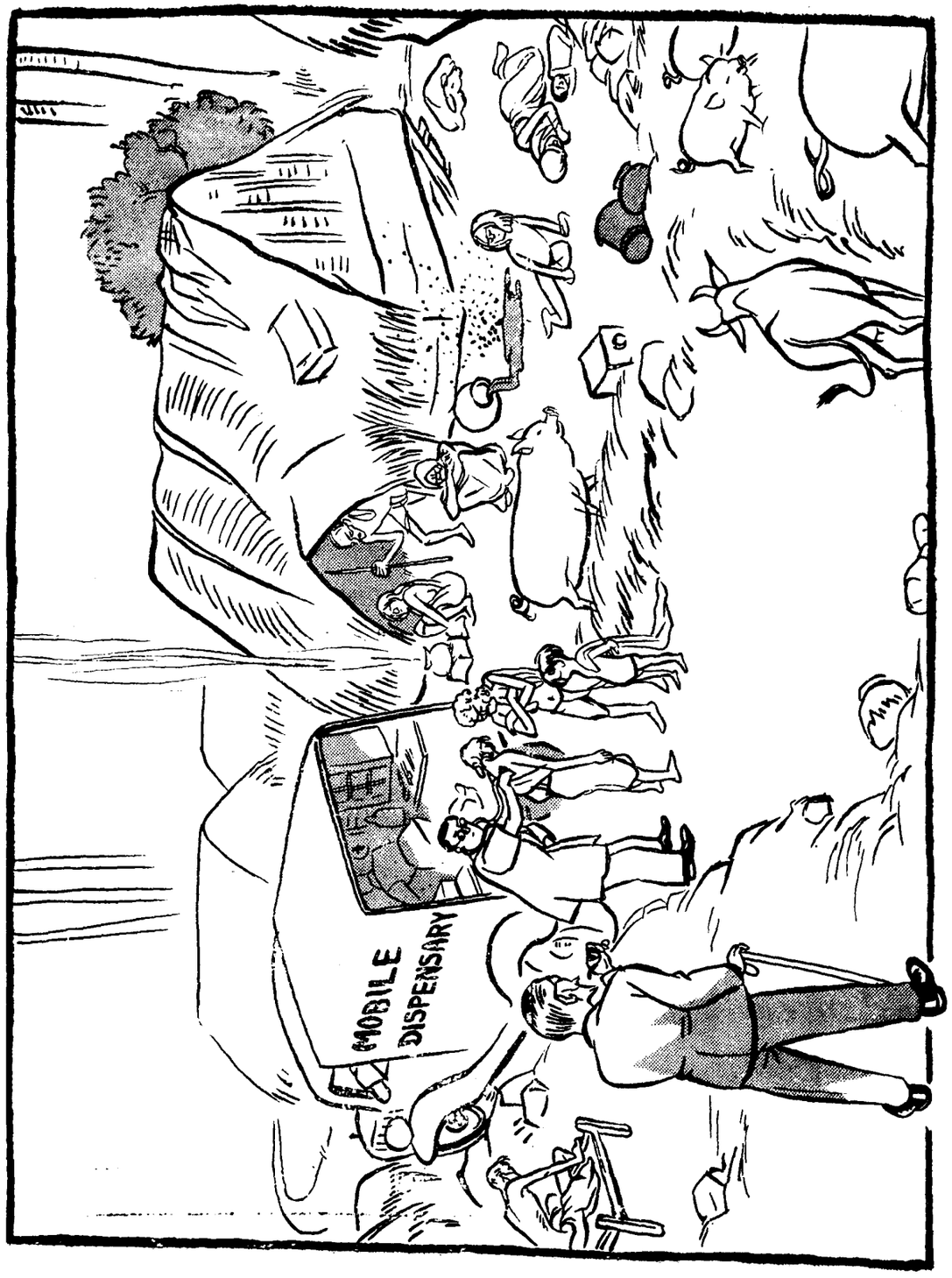

A PIONEER IN THE FIELD OF PUBLIC HEALTH

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VOL. II No. 3 **DECEMBER, 1947** ISSUED MONTHLY

EDITORIAL . . .

Straining at a Gnat and Swallowing a Camel !

It is notorious that teachers, clerks, Municipal workers, technically trained members of the Health Department, Municipal Engineers and other black-coated gentry have received a very shabby deal at the hands of the Government of Madras.

DISINGENUOUS PLEA

We have already discussed the question of prices and wages, but we should like to draw attention to the manner in which the Government seem to have handled the demands of the Municipal Engineering Service for a reconsideration of their status, scales of pay and other conditions of service. An organisation representing them seems to have decided upon convening a conference in the City of Madras to discuss the special problems and conditions of the Municipal Engineering Service; but we were surprised to learn that permission to hold such a conference was refused by high authorities for the extraordinarily unconvincing and funny reason that "in view of our present difficulty in getting sufficient food supplies, the question of convening a conference of Municipal Engineers may be deferred till April 1948." When it is remembered that the number of Municipal Engineers who intended to take part in the conference did not exceed 44, and the City of Madras is daily catering to more than a million people, the disingenuousness of the Government's plea stands unmasked. The inference is irresistible that the Ministry has used its great power to choke off its own servants, whose only fault is that like Oliver Twist, they dared to ask the Government for a

little more. Instead of allowing them to ventilate their grievances, at least as a safety valve, to the Government itself, choking them off in this manner is neither prudent nor paying in the long run.

BETWEEN THE DEVIL AND THE DEEP SEA !

Leaving however, this question of tactics, let us examine briefly the case of the Municipal Engineers, and determine how far they require immediate redress. In the first place, the Municipal Engineering Service is caught between the devil and the deep sea. Whether it comes under the Sanitary Engineering Department or under the Public Works Department, has been left an open question. Actually, they have been kicked from one to the other during the last decade and more, simply because those responsible for formulating policy at the highest level have been victims of a deplorable infirmity of will or of aim. There has been an insistent demand for the organisation of a Municipal Engineering Service entirely independent of the Public Works Department, and exclusively concerned with all questions of Public Health Engineering. But unfortunately, the old bureaucratic tradition which believed in concentrating power at the highest levels in one or two hands was responsible for sabotaging all attempts to organise Public Health Engineering as a Specialist Service on independent lines.

The fundamental need of this department is therefore an early formulation of the principle that it is necessary and desirable to organise the Municipal Engineering Department as a separate branch of service under the Minister of Health. For, it is the Minister of Health that must wholly co-ordinate the medical, public health and public health engineering activities. Following the example of Great Britain, it would be much more sensible to hand over to the Minister of Public Health the administration of local bodies than to saddle upon the Local Administration Department such highly complicated subjects as public health engineering works.

Once, such a far-reaching fundamental principle is conceded, it follows that the organisation of the cadre of Municipal Engineers should conform to similar cadres in the allied services. This is the head and front of the demand made by Municipal Engineers.

WHY DIFFERENTIAL TREATMENT ?

There are glaring anomalies in the scales of pay, increments and classification into groups as between Municipal Engineers and other local board officers, like Commissioners, Health Officers and District Board Engineering Officers.

Only in regard to the Municipal Engineering Service is there no natural and progressive line of promotion from a fourth grade engineer to the post of the Superintending Engineer or the Sanitary Engineer. Commissioners are recruited from a very wide field and their qualifications are found in many cases to be not more than those of clerks with routine training. But in the case of Municipal Engineers, there is the engineering training with which they should start ; and yet it is most surprising to find that their eventual prospects in most cases do not bring them even to the gazetted rank ! No wonder, as a result of such glaringly differential treatment, there is a great deal of discontent in the Municipal Engineering Service.

OUR SUGGESTIONS

A word of advice to the Municipal Engineering profession would not be out of place here. For one thing, we wish to impress on all the members of the service to keep predominantly in their minds that they are by no means trained specially to shoulder responsibilities for designing and executing all public health engineering works. We realise that there is no training ground in this country excepting the All India Institute of Hygiene and Public Health, Calcutta. They should therefore acquire technical knowledge by the study of the latest literature which may be available to them. They should periodically hold conferences to discuss technical matters to ensure efficiency of their service to the rate payers.

They should give up the mentality of mere mercenaries following the traditions which have been left behind by a foreign administration in this country. They should realize that in an *Independent Indian Dominion*, every Indian is expected to put forth his best in the respective field of work. They should be impelled by a genuine spirit of patriotism and of service to the society. Demanding high scales of salary at every turn is a vicious circle. Our poor country cannot simply afford it. They should on the other hand, press for amenities of service which one could legitimately demand from an ideal employer—the State—such as, facilities for free medical service, free education to their children, housing, insurance and the like.

The Ministry for Local Administration would be well advised to permit at once the Municipal Engineers to hold the conference and if possible, to give a correct lead to it.

Public Cleansing

"*CONSERVANCY*"—an antiquated term—means the removal and disposal of all kinds of filth. This work is now the main pre-occupation of the Health Officers, especially in municipalities. They cling to it with ignorant and pathetic fervour as though their very existence depends on this work continuing on their hands. Despite all modern scientific advances in the subject our 'Public Cleansing' is still medieval in organization and equipment. As a former Director of Public Health, Madras, put it, the conservancy plant now in use is unsuitable and disposal methods primitive. Medical men have been in charge of it for well nigh half a century now; and yet the job is still done in the most antediluvian manner. Surely the Health Department cannot pride itself on this!

WHY THE DELAY IN STANDARDISATION OF TOOLS AND PLANT?

Quite a long time ago, the Board of Public Health, Madras, passed a resolution that the conservancy tools and plant should be standardised. What happened to this pious resolve? We wish that the authorities take as prompt an action in this as they usually do in putting forward proposals for creating new posts or for promoting officers. From the delay in the matter, we are constrained to conclude that the responsibility for the standardisation should have been thrust on "experts" who are apparently unequal to the task. No further time should be lost in standardising the tools and plant and in making arrangements for their manufacture.

AN INVITATION TO THE MINISTER OF HEALTH

We invite the Madras Minister of Health to inspect the area near Luz Church Road, Mylapore, Madras, where refuse is being dumped indiscriminately to fill up a tank. 'Controlled tipping' is a scientific subject. Much research on it has been made in other countries and the results are available for the guidance of technical men. We doubt whether the Public Health (Medical) experts are aware of the existence of the current literature on the subject. 'Sanitary Fills' have come to stay. It is the most economical and efficient method of disposal of refuse, *provided the basic scientific principles are observed. Indiscriminate dumping of refused is not 'controlled tipping'*. The net result is that the atmosphere in the area is heavy, charged with foul smell under certain conditions of the weather, not to speak of the pestilential nuisance caused by rats which make these dumps their home. Although the residents in the area are "enlightened", they do not seem to realise their own

rights and duties. Journalists, Judges, Medical men, Public Health experts, all live in the neighbourhood. No one seems to have raised even his little finger to stop this medieval method of disposal of refuse even in the vicinity of their own dwellings!

REMEDY—RIGHT MEN FOR THE RIGHT JOB

There is nothing in cleansing which needs a knowledge of medicine; on the other hand, the subject requires an intimate acquaintance with engineering technique. In every civilized country, 'Public cleansing' is deemed part of Public Health Engineering, and it is entrusted to qualified engineers even though it forms part of the Health Services, even as hospitals do, for purposes of co-ordination. Nowhere are the time and talent of medical men wasted in this task for which they are least fitted. What is happening in Luz Church Road is inevitable so long as the medical personnel of the Health Department are not relieved of this task. The right remedy is to entrust it to municipal engineers, who are in charge of protected water-supplies, drainage and sewerage and other Public Health Engineering Works. The Bhore Committee very rightly placed "Sanitation" generally, and "Public Cleansing" in particular, under the purview of Public Health Engineers. If their suggestion is adopted, it should be a relief to the medical personnel, who can then devote more time, thought and attention to their legitimate work. It will also result in an improvement in the efficiency of the cleansing service. Medical men have been clinging to this burden—for which they have neither the training nor the capacity—on the plea that trained engineering personnel is not available. This is an untenable position. While our present municipal engineers may not be 'Public Health Engineers' specially trained for their task, we have not hesitated to entrust them with important branches of Health Engineering Works. Public cleansing is in no way more complicated or abstruse than dealing with water-supply or sewerage. Any municipal engineer worth the name must be able to tackle it with far more efficiency than a medical man. The Ministry of Health should lose no further time in effecting a proper distribution of functions between the medical and the engineering branches of the services.

"The Chit System"

The public should feel thankul to the Government of Madras for publishing a Press Note drawing attention to one of the hoary old corruptions, which had taken deep root in Government Hospitals. It so happens that we have discussed this subject in general terms

in our editorial last month. But the Government's reference to the 'Chit system' is a specific instance of it.

The Press Note, draws attention to a matter which has been an open secret all these years. The Ministry of Health has unmasked this plague-spot. We are afraid that the remedy suggested offers little or no hope of eradicating the evil quickly or completely.

It has been the usual practice of medical men employed in *Government Hospitals to use Government institutions as their private nursing homes*, and to divert to the hospitals their private patients, thus perpetrating a double wrong. Not only is favoured treatment given to a hand-picked few, but the cost of treating them is debited to the general revenues of the State, while a private fee of undetermined, unknown quantity is quietly pocketed by the guilty medical men. The so-called 'honorary' system has helped the growth of this practice into a scandal—it is immaterial whether the honorary is a struggling assistant or a top-ranker.

It will not do for the Ministry merely to say that such a practice should stop. What the public is interested in, is not the stopping of the *chit system* but the stopping of all "private patients" being treated in public hospitals. A remedy which we can think of is, that the right of admitting inpatients in hospitals should, until this scandal is completed rooted out, be withdrawn from all and sundry doctors, and exclusively vested in the senior members of the profession attached to the state hospitals, who should be debarred altogether from private practice. This is the only logical corollary of the Government's Press Note; and unless it is implemented, the Ministry is in danger of being discredited as having only good intentions but not the courage to implement them—or as the poet bewails:

"The Good want power, but to weep barren tears

The powerful goodness want; worse need for them!"

MY DREAM CITY

by

S. A. VANESWAR

M.A., B.L., I.A., & A.S.

Accountant General, Madras

The inhabitants of a city form its citizens, who, though pursuing different trades and callings, are bound together by certain common interests and responsibilities. The greatness of a city consists not in its lofty buildings, its colleges, courts, temples and gardens, not in its places of amusement and activities, but in its men and women of culture and character. The lives and activities of such persons exert a wholesome influence throughout the city; they are a beacon light to the public at large.

EMPLOYMENT

The magnetic attraction of a city is the opportunity it affords for honourable and lucrative employment of a diversified nature. In the city are found persons engaged in the learned professions, *e.g.*, lawyers, doctors, teachers and Government servants. There are technical lines of work in Electrical, Mechanical Engineering, Railways, Posts and Telegraphs, industries and manufacture of cloth, silk and woollen goods. There is ample and expanding scope for business men in trade, banking, sale of cotton, woollen, silken and leather goods, furniture, books and stationery, jewellery, crockery and glassware, provisions, brassware, pottery and vegetables, in motor companies and insurance work and in the publication of books and newspapers. A city which offers all these facilities is worth living in, as it makes living possible and provides occupations suited to the capacity and aptitude of different individuals. It should be made worth living in by eliminating unfair, cut-throat competition, professional jealousy, underhand dealings, exploitation, corruption and undue favouritism. Honesty should be the watch-word in work of any kind and is always a good policy. Public offices and private companies should be above-board, and not lend themselves to any suspicion of aggrandisement or foul play. There must be a healthy atmosphere and good spirit pervading in the city. Public and private life must be purified and purged of selfishness; civic sense and responsibility should be developed and

shown in everyday affairs. Compared with the city, country life offers much fewer prospects and rewards. The standard of living in a city is certainly higher and amenities greater than those that could be found in a village.

SANITATION AND PUBLIC HEALTH

Next to occupation, is the benefit of residence in a city in respect of health and amenities. An efficient and representative municipality will function properly and ensure alike the necessaries and amenities of city life. It will maintain roads, provide water supply—filtered for drinking and unfiltered for the garden and sanitary fittings, electric lighting for streets, offices and houses, underground drainage and sanitary flush system in all buildings. The municipality must find ways and means of promoting the health and enjoyment of the citizens in return for the taxes it recovers from them. Sanitation requires special attention. Roads should be swept clean daily and watered often to keep off dust and filth : underground drainage and storm water drains should be cleared, public latrines should be kept clean, market places and shop fronts should be kept scrupulously clean by removing daily the refuse accumulating there and disinfecting the place. Bye laws should be enforced to maintain sanitary condition in all places where people congregate together, spitting on the road and inside public offices should be prohibited and penalised. Road sense must be instilled into the minds of the people so that they may avoid becoming moving obstacles on the road and likely victims to motor traffic. Municipality will enforce rules for the proper construction of office and residential buildings and insist on adequate frontage and open space for them. There should be good ventilation even in the humblest cottage, to let in God-given light and air, so essential to health. Municipality will see that buildings which are eyesores are not allowed to disfigure the city. Streets should be regularly formed and lined with decent buildings and shop-fronts in the market place. New Delhi, Mysore, Bangalore and Jaipur have shown the way how to make the city beautiful in this respect.

Preventive measures should be taken by the Municipality against epidemics during their seasons, e.g., Small-pox, Malaria, Cholera, Influenza, Typhoid, etc. Medical relief and nursing and upto date methods of treatment should be amply provided in Municipal and Government hospitals. The poor men should not suffer from ill health by reason of poverty and medical treatment must be a within reach of all. The slums are generally the prolific source of diseases and should be cleaned up. As Pandit Jawahar Lal Nehru observed, the real test of the greatness of a city is the condition of its slums. Sanitary measures taken in these areas will ensure to the benefit not only of the inhabitants thereof but also of others in the city, by the destruction of germ carriers.

A Municipality, however zealous and vigilant, cannot carry out all these measures, without the ready and close co-operation of the citizens in the cause of their common welfare. The opening of health centres, maternity and child welfare and first aid institutions, dairies and associations for the promotion of health, should receive the care and support of all the citizens. A city should be a fountain of health and life and not a hot-bed of disease and death. The Municipality is expected to provide public parks at street ends, recreation grounds, gymnesia and exercises for children, swimming bath and exhibitions bearing on health and industries from time to time. Open spaces are the lungs of a city and should therefore be carefully preserved. They will provide rest, recreation and healthy exercises for the citizens and their children.

POLITICAL ACTIVITY

The city is the hub of intellectual life and a forum for political, social and economic activities. Leaders in the various walks of life are naturally found there, and they form the intelligensia to guide the people. By example and precept, they will improve the morale and *esprit de corps* of the people and enable them to sink their individual and communal differences in the achievement of progress and prosperity for all—" United we stand," " Divided we fall " is a well proved maxim. There should be a public hall for lectures and a common platform for all speakers.

Just as a disease in the physical body should be prevented or checked and rooted out, so should riot, disorder and mob-fury which are the canker of the body-politic, should be rooted out. Law and order should be enforced at all costs. There should be no hooligans, thieves or mischief-mongers in the city. There should be a corps of civic guards raised by the citizens in addition to the police provided by Government ; the former will ensure the orderly performance of big functions, e.g., meetings, fairs, processions and religious celebrations in the city.

SOCIAL AMENITIES

Man is essentially a social animal and craves the company of his fellows during hours of leisure. To provide for this natural want, the citizens should form clubs, mixed clubs, ladies associations, where they can meet and entertain themselves. In these clubs, games of all varieties—outdoor and indoor—will be provided, e.g., Badminton, Tennis, Hockey, Football, Pingpong, Billiards, Cards, Carrom, etc., and tournaments held annually. Clubs are the centres of social life and activities, on a cosmopolitan scale. There should be decent and well managed cafe's for social functions. Associations should be formed for removing the many evils which affect society, e.g., communal spirit, depression of certain classes, untouchability, ignorance and poverty. These social activities will be the evidence and measure of the corporate life of the city.

ECONOMIC CONDITIONS

The economic conditions of a city are of vital importance. The standard of living should be kept at a reasonably high level, commensurate with the efficiency of work done. The ideal of " plain living and high thinking " is indigenous to this ancient land. There should be a " drive " against waste and want in all spheres of life. Expenses on marriages should be curtailed and investments of money should be encouraged for the benefit of the married couple. Ideas of thrift should be inculcated at home and in school, by word and by deed. Economic activities should be supported.

The poor are always with us. Beggary has been a baffling problem through the ages in all countries. Inequalities will and must exist in human life, as they do in Nature with her mountains and valleys, the sharp contrast between riches and poverty seems inescapable. But these differences and consequent sufferings could be ameliorated. With the co-operation of the citizens, the municipality will organize a Beggars' Home, and run the same from the proceeds of a poor tax. This will be an organised and useful charity. The poor tax could be easily afforded by the well-to-do. The Beggar's Home should by no means a den of idleness but a hive of activities. With the exception of those who are too old or diseased to work and have to be fed, others will be employed on useful manual work including spinning and handicrafts. The results of their work will also contribute financially to the upkeep of their home. Vagrants should

be punished and sent to the nearest workhouse. An orphanage should also be run by the municipality for the care and upbringing of destitute children to whom fate has been cruel. While all cannot live in plenty, none need starve and be unclad and homeless. "One touch of Nature makes the whole world akin." These noble words ring true for all time.

Co-operative credit societies should be run by trusted citizens to mobilise credit and grant loans on easy terms to persons in cases of real necessity. Facilities must be given for investment of small savings in Post Office Savings Bank and short term or share deposits in Banks. The interests of the various services, trades and professions should be duly safeguarded by voluntary and responsible associations. Sacrifice and selfless work for the benefit of all will be the glory of the city.

EDUCATIONAL INSTITUTIONS

The city offers great facilities for the education of children. Schools and Colleges for coaching up in Arts and for professions flourish in the city. A special course of instruction for girls intended to fit them for their duties as housewives should be provided. Instructions of a practical nature should be imparted to them in domestic accounts and economy, household work, cookery, knitting, embroidery, needlework, first aid and elementary medicine. They should be trained in the care and nursing of a baby. Thus girls will prove fit for their role as housewives and mothers of the citizens of tomorrow.

The fourfold aspects of education physical, intellectual, moral and emotional should, receive due attention.

(i) Physical training in schools and colleges should be compulsory. A variety of games should be provided. Free participation in sports will be a solvent of communalism. Sports create a team spirit and *esprit de corps* among the students and love of their *Alma mater*. "Play the Game" holds good on the playground as well as in everyday life. Success or failure in games has its value in life, corresponding as it does, to ups and down of human fortune. Difficult situations should be faced with equanimity and resourcefulness.

(ii) In its intellectual aspect, education draws out the mind of the child and develops it in many directions. Studies in schools and colleges involve a training and improvement of the mind. Students imbibe and assimilate the treasures of knowledge in the realms of Literature, History, Economics, Geography, Science, Mathematics, Philosophy, Physiology and Hygiene. Through such schools and colleges, the city offers the best facilities for education. Debating Societies sharpen the intellect and ready-wit of the students and train them for leadership in after life. The power of the pen and the tongue is as mighty as that of the sword, in carving imperishable empires of thought and action. There are technical colleges in the city for engineering and medical and legal professions and Training and Technological Institutes. Technicians from these institutions will carry on their work efficiently and successfully.

(iii) The emotional aspect of education deserves special recognition. In schools and colleges, drawing, painting, music and other fine arts should be provided for, according to the taste and aptitude of the pupils. There should be a good Zoo and a Museum which will afford amusement and instruction to young and old alike. Paintings and sculpture should be displayed prominently; they reveal the beauty of Nature and of Art. Such works will be an inspiration to the spectators. The city will provide theatres for cinema and drama. Talkie films, carefully chosen, are

attractive and impressive and will be popular among the citizens. Likewise, dramatic performances which unfortunately seem to be vanishing, with the advent of the Talkie, should be encouraged. These agencies are valuable as they train the emotional and aesthetic faculties of the citizens.

(iv) Last but not least is the claim of *moral and religious* education. This cannot and should not be imparted in schools and colleges which should be open to all classes and creeds and free from religious bias. Moral and religious education is essentially to be imparted in the home by the precept and example of parents, according to their inner persuasions. It is the parent's influence that moulds the child. Family worship and epics of the Great ones impress the young minds of children and unconsciously but unmistakably, mould their character and outlook in their adolescence. It is profoundly true that "the hand that rocks the cradle rules the world." It is the privilege of the mother to produce and shape the citizens of the future in whose hands lie the destinies of their family, city and country. The greatest and most precious formative influence goes towards building up character and morale which are the best assets in our lives. The evils of Godlessness are evident. Individualism and independence lead to chaos while interdependence is the law of life. Divorced from morality and the realisation of the Fatherhood of God and its corollary, the brotherhood of Man, Science might easily become an engine of destruction, instead of a handmaid to progress and prosperity.

The keynote of Religion is harmony with one's self and surroundings born out of the realisation that "we are but parts of one stupendous whole, whose body Nature is and God the Soul." Religion evokes the divinity in Man. All the great religions of the world agree in their fundamentals and in the search of the eternal Truth; they are but different colours, reflected by the same white ray of Truth when it passes through the prism of the human mind. Now that the thunder and horrors of the Great War have rolled by, the cultivation of humanities' character and culture will bring about lasting peace and true happiness in the world.

In the city, there will be temples for the followers of different religions and prayer halls. They should be spacious and well ventilated and bear a religious atmosphere. They should be kept clean and well lighted. As beggars will be segregated in the beggar's home, they will not block the way to temples and exasperate the worshippers by their dirt and disease. Lectures by religious leaders and processions on important occasions of religious significance, will have a wholesome effect on the minds of the young and the old alike. At these public functions, the civic guards and volunteers will render service in maintaining peace and order by regulating the crowd and making necessary arrangements.

Tolerance, co-operation and capacity to see points of view other than one's own, are great unifying and strengthening forces in city life. In civic matters, the citizens should be guided solely by considerations of public health and welfare, regardless of caste, creed, colour or sex, as citizenship and patriotism are wider than narrow sects and communities. This aim and spirit will then be necessarily shown by their representatives in the municipality which administers the local affairs of the city.

RESUME

To sum up, it is the existence of avenues of lucrative employment, conditions of life conducive to health, opportunities for political activity, amenities of social life, stable level of economic

conditions, facilities for the education of children, suited to their aptitude, for honourable livelihood in the different walks of life, and above all the functioning of institutions which afford rest and recreation or appeal to the mind, heart and soul, of citizens, irrespective of age, sex or community, it is the commingling and interplay of these manifold advantages and attractions that makes my dream city worth living in. They make the sum of human life and make it worth while. We are in an imperfect world in which there could be no unmixed good. And the city is no exception. Unemployment, communalism, disease, ignorance, discontent and starvation, might stalk abroad in the greatest of cities. But these evils could be mitigated, if not eliminated. How to do so and make the city worth living in, has been indicated above in each case, so as to depict a pen picture of more or less an ideal city, with due regard for practical limitations.

The city is indeed a microcosm of the world, concentrating and reflecting many-sided activities and radiating light, health and happiness all round for the common good. Good citizens can and must build up a great city to meet the manifold and growing requirements of the present day, a city built with human hands and hearts, which is worth living in, and of which they can be proud, even as the city will have every reason to be proud of them.

PLANNING FOR HEALTH

Breadth of Thought and General Direction are not opposed to specialised thought and detailed work. The clear thinker realises that they are complementary and mutually indispensable. Yet, in the practice of Sanitation and Public Health with its manifold applications and wide social purpose, this generalising spirit has neither been cultivated nor applied, although it is the urgent need of all cities everywhere.

Diseases are many, and each involves its special inquiries. But while diseases are many, Health is one—the unity of sound mind in sound body. Are we to go on as at present, providing as many remedies as there are diseases, and now drugging, now inoculating each other against them all? May there not be some better way?

The many diseases arising from impure water cannot be eliminated by the detection of their specific germ or the concoction of the right serum. The final, effective, and wholesome treatment is that of Hygiene proper in the sense used in Hippocrates in his master work 'On Air, Water and Places'. This depends upon the degree to which we can revive the ancient respect for the purity of water in river and nullah, in pool and tank, in vessel and hand.

(*Extract from "Patrick Geddes in India".*)

GOSPEL OF HEALTH

by
V. V. SRINIVASA IYENGAR
ADVOCATE.

CALLS OF NATURE:—This English expression containing as it does a genteel reference to certain special excretory functions of the human body may first fall to be considered even with reference to the words employed. There can be no doubt that hunger is a call of nature and so is thirst. Even so is the irritation, however caused, in any portion of the body requiring scratching with the fingers and so on. But the expression "Calls of Nature" has come by usage to be confined to the urgent demands in the concerned portions in the lower part of the trunk of the human body which are periodically felt requiring a person either to pass out the urine accumulated in the bladder or the faecal matter accumulated in the lower intestines and requiring to be excreted and expelled. These may be considered as among the most important sanitary operations in this body of ours which may appropriately be compared to a big city. Having become used to these calls and compliances with the calls, we have come to take them so much as a matter of course, as not even to bestow any thought on the nature and necessity of the operations. In order fully to realise the wonderful nature of these calls, we will do well to consider what will happen if there were no such calls.

We have often come across patients in *extremis* going through these operations of nature even without being conscious of them. We see it so

done by the child in the cradle. It is the same thing that happens when a person is lying very ill and prostrate and either unconscious or with the capacity lost for controlling or regulating these excretions. It is therefore, obvious what the effect in human beings will be, if the intimations in the way of such calls should not be made by the wonderful constitution of the human body. The results of such a condition can more easily be imagined than described.

In all normal bodies there is the possibility of controlling these excretions in some measure by putting it off or postponing it, not indeed for very long, but during short durations of time. This evacuation of the bladder and the bowels is easily apt to become a source of unspeakable nuisance, but for such possibility of control. The rule of nature, the rule of health requires that the call should be complied with, as soon as it comes and at any rate without much delay.

There is reason to believe that many illnesses of the body have their origin in the consequences of the undue postponement of such evacuations for long periods even after they become insistent. The birds of the air, the beasts of the field and even the natural man answer the calls so automatically that they seem to be altogether free from the evil effects of long retentions of the excretory matters in the system. There is no doubt that in most civilised countries what is called constipation in the human body is found to be the most chronic and fertile source of many kinds of diseases. Constipation is unnatural and should be appreciated to be the result of bad habits persisted in prolonged suppressions of the calls of nature, and once the habit is formed, it grows and grows and becomes a serious ailment. No doubt there are other causes such as improper diet or sedentary habits or even wrong clothing and improper sitting and the like, which may be calculated to bring about chronic constipation. But all the same, there is reason to believe that it is the needs of so called civilised life and solely social conventions that are generally the most potent causes of constipation. No doubt in very rare cases the difficulties of prompt excretions might be brought about by certain clots or obstacles in the body itself causing obstruction in the relative portions of the body. But such cases can be cured only by proper medical or surgical operations and may be left out of account as being rare.

"Easing oneself" is another expression frequently used with regard to such excretions. Such an expression is calculated at once to indicate not only that the opposite of easing is

diseasing, but to indicate also the sense of relief almost of pleasantness accompanying such excreting operations, more especially if they should happen to be somewhat delayed. The pleasantness felt by the entire human system on such occasions, is itself a most final and positive proof of the necessity for every person developing a habit of evacuations without delay.

One cannot possibly live in a house in which the sweepings from time to time are not thrown out or in which the drains become blocked up and stagnate. May we not say similarly that a soul cannot put up in a body not rendered clean by regular excretions?

Questions have often been put as to the number of times a person should evacuate his bowels or bladder. The answer of course is "as often as may be necessary". But if the calls are unnaturally frequent, it is the surest indication of something very wrong somewhere. I have heard it stated in an Ayurvedic work that the normal demands of the human body may be said to be evacuating the bowels twice and the passing of urine six times a day. It of course follows that any appreciable deviation from this normal standard must be regarded as indicating something unnatural. If for any reason a person comes to suffer from chronic constipation, it behoves him to get himself properly treated for getting over it somehow or other. I have known innumerable persons who have got to resort to enema without the use of which they are not able to evacuate their bowels. I venture to believe that even in such chronic cases a great deal might be done to restore the human body to a normal condition by dietetics or appropriate discipline and proper treatment. It is said to contemplate the countless remedies that are prescribed for the cure of constipation,————so many lubricants, night pills, laxatives, salts, etc., etc.

As chronic constipation in the human body may be the result of various causes, it follows that medical advisers should be able to diagnose the exact cause and treat the same in a natural rational manner. But at the same time it must be granted that however chronic it may have become, it will still be possible to cure it, if only slowly and gradually, by the adoption of proper diet and the development of habits of life which will be calculated to overcome the root causes. In conclusion it may be said that every man will be able to find out for himself the causes for the disposition to constipation and suitably treat himself, if need be, with the advice of a competent medical practitioner, after a thorough investigation of his life and habits.

Before concluding this part, it is necessary to refer to a belief and practice widely current that the bowels move in the morning only after coffee is taken. No doubt if the bowels do not move, the first thing in the morning, they must be made to move, somehow, according to the predispositions of one's body or the established practice of decades. It is, however, well to bear in mind that there is nothing with regard to our habits of life which cannot be changed by our thought and determined act of will. For instance I am sure that if instead of believing and acting on the belief that the bowels will move only after one imbibes a quantity of hot coffee, one should begin and cultivate a habit and resoluton of not taking coffee till the bowels move, the latter will in its turn become established as a health habit. It will be helpful in this connection to realise fully the importance of, so to say, regularising even our calls of nature by persisting in the practice of making ourselves clean in body, before we start the avocations of the day. In this respect one has only to remember the truth that there is no bad habit which we cannot overcome by exercising our potent will and there is no good or desirable habit which we cannot form and discipline our body to.

There are not only sometimes abnormalities in the contents of excretions but there is at any rate with regard to the excretions of faecal matter, the conditions of the excretion such as loose and hard. Both these are not normal. The ideal manner of excretion in this respect should be recognised to be that in which the excreting parts and its vicinity do not get dirtied or soiled by the excretion. Most of us must have noticed, that when a healthy cow or horse excretes faecal matter it is neither solid nor liquid, and that after excretion there is nothing sticking in the parts concerned. But, animals live a natural life, and man does not, and will not.

It is well known than an examination chemically and otherwise of the excretions of the human body is calculated to give indications with regard to the proper functioning of various internal organs in the body. For instance the presence in the urine of large proportion of sugar is called diabetes. At the present day there are established though not in large numbers, chemical laboratories where such examination of the excretion is made scientifically in order to enable the doctor on the report of such examinations, to diagnose accurately the nature of the diseases, and the extent of the wrong functioning of internal organs. Though it may not be necessary to

think of the doctor when a man or woman feels perfectly well and has no reason even to suspect anything wrong with the functioning of the various organs, still the periodical examination inclusive of the chemical examination of the excretions of the body will be calculated to yield valuable information at any rate to furnish accurate and scientific basis for the necessary satisfaction in the mind that nothing at all is wrong.

There are in connection with our body numerous other indications, irritations and cravings all of which could properly be described as calls of nature, for instance the craving for fresh air or cool breeze in summer or of warmth from the sun or fire and so on, but to speak about all of them under such a general caption is neither necessary nor possible. We have therefore necessarily to reserve to more appropriate parts of these discourses reference to and consideration of such matters.

Two other matters deserve notice in connection with what is called the process of our answering calls of nature. In the first place some reference is necessary to the place or places of excretion. Those who live in towns and crowded places have got so much accustomed to the use of latrines that they seem to have rendered themselves even unable to make their excretions except in such places specially set apart for the purpose and to which they have become habituated.

It is a matter for congratulation that sanitary closets provided with flush-outs are coming more and more into use and that even District municipalities are gradually taking steps for making compulsory such provision in each household. Little doubt there could be that enclosed places not provided with sanitary fittings are, if possible, worse than hell for the purpose, and yet this necessity rendered compulsory by conditions of over-crowded life in the cities has been put up with for centuries. The present day sanitary fittings cannot be over estimated for their cleanliness or sense of clean and beautiful surroundings ; but even so there is much to be said in favour of the ancient practice in villages of going far away into woods, forests and hills for evacuations of bowels and bladders, especially under conditions of fresh open air, cool atmosphere and natural solitariness as contrasted with foul-smelling and horrible latrines which cannot but be regarded as an infinite source of discomfort and disease. There is also much to be said in favour of the national habit of Indians of washing and cleaning with cold water those portions of the body wherefrom the excretions are made. No doubt there is the chief criticism that is levelled

against it pointing out that the cleaning is required to be done with one's own hands. The claim can confidently be made that washing with cold water the ends of the body which have been used for excretion is not only the cleanest but the best method. The use of sanitary paper without the use of water has little to be said in its favour. After all we have in the course of a day's work to touch and handle so many dirty things. Water is perhaps the best cleansing agency in creation and the use of it cannot be too much praised or insisted on. There is also in this connection the value to the body as a whole and to the nerve ends especially of the application of cold water not only to allay the heat felt at the time of excreting but also to the cool refreshing sensation over the entire body consequent upon the application of cold water to those parts. There is also good reason to believe that constant application of cold water to the nerve ends in those parts of the body has a bracing effect on the nervous system as a whole. If the refrain of back to the village should come to be accepted in practice, there could be little doubt that one of the greatest pleasures and benefits to be derived from living in villages will be the ideally healthy surroundings in which the process of answering calls of nature may be made and the availability of waters cooled by nature for purposes of washing and cleaning.

HYGIENE AND CIVILISED BEHAVIOUR BEGIN IN THE BOWELS

But let not the reader imagine that we speak of only hygiene, and that in so narrow a sense. Who knows but that Hitler himself, had he been more fortunate in his habits, would have been a happy and (in consequence) a harmless person? For I have heard it said, even of our own countrymen, that their habits of feeding induced a lethargy in their bowels, which in turn so irritated and inflamed their constitutions that they were induced to subdue one-fifth of the globe to their dominion; when for the cost of a few figs each day they might have lived in peace, with their household gods. Therefore, if history be properly understood, it may prove to be the case that our present calamities began, not at Munich or at Versailles, but in an empty closet in Austria, where a dismal failure was unrecorded for which even the empire of the world could not atone.

(Extract from "Cleanliness and Godliness" by Reginald Reynolds—published by George Allen & Unwin Ltd., London).

TUBERCULOSIS HOW TO COMBAT IT?

by

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Tuberculosis is rampant throughout our Presidency and Madras appears to be very badly hit. The problem that is facing us to-day is of such enormous dimensions, any attempt made to combat the disease would be touching the fringe of the problem. The position of our Presidency with regard to Tuberculosis to-day is indeed very appalling. Practically one in every seven deaths that take place in our Presidency is due to Tuberculosis. In the City of Madras alone there are about 1,000 to 1,200 deaths from Tuberculosis every year. For every death that takes place from Tuberculosis, there are atleast 10 more people who are suffering from active Tuberculosis and who are infectious, thus making a total of 12,000 open cases in our City of Madras. The position of moffusil towns like Chingleput is no better. Possibly this is worse due to various causes such as dusty atmosphere, poorer standards of living, lack of sufficient knowledge and lack of treatment. Our brethren who live in villages were better off a few years back, but with the increased means of communications and closer contact between the village people and the city people, the disease appears to have no more respect for them. The incidence among the villagers is as great as it is among the town people. This disease knows no division of race or colour or caste. It affects all human beings alike and its incidence is greater in places where standards of living are low, the economic condition of the people is poor

and where there is not sufficient anti-tuberculosis propaganda made. The problem of this disease is now engaging the attention of practically the whole of India and an organised scheme is being laid down.

Unfortunately for us, the problem appears to be one which is not so easily solved, yet the organisation of a systamatized anti-tuberculosis campaign will go a long way in directing our attention and encouraging any attempt that may be made to combat this disease.

I intend dealing in this article with a few facts which are responsible for the spread of this disease and suggest a plan for prevention.

The first and foremost cause for the spread of this disease has been the low nutritive value of our food. The whole prevention of Tuberculosis centres in nutrition and it is expressed by certain clinicians that Tuberculosis, is a deficiency disease just like beri-beri or any other deficiency disease. The ordinary food that is taken by a South Indian consists of rice at both meals with a little of buttermilk and possibly a curry. The nutritive value that is contained in this ordinary diet is indeed very small. Attempts have been made at the Research Institute at Coonoor to classify the value of the different diets and it has been worked out that the diet of the South Indian is the worst as far as nutritive value is concerned. A Punjabi diet is the best in its nutritive value and even superior to some of the diets of the western countries. Food which contains very little of nutritive element if taken, stunts the growth of the population and produces a set of unhealthy people. Poor health as a result of this poor nutritive diet always exposes the South Indian to greater risks and he easily falls a prey to diseases like Tuberculosis, because Tuberculosis can spread in an individual whose general health is poor. The loss of general health always follows ingestion of poor nourishing diet.

In addition to the poor nourishing food of a South Indian, the economic condition also is exceedingly poor. It has been estimated that the average income of an ordinary South Indian is less than three annas a day and you can well imagine what comforts he can command both for himself and for his family members with three annas a day.

The third factor that influences the spread of this disease is the standard of public health. It should be remembered that Tuberculosis affects individuals who are poor in their general health. *Insanitary surroundings, ill-ventilated houses and dusty atmosphere have a tendency to decrease the general resistance of the individuals which in its turn paves the way to Tuberculosis.*

Public Health has a great deal to do in preventing this disease. Occurrence of periodical epidemics of infectious diseases like Measles, Influenza and Small-pox always lead in their way to increased incidence of Tuberculosis. It should be the prime object of public health authorities to improve the public health of a place if any tangible good has to be done towards the reduction of this disease.

In addition to the above general factors, there are certain other local conditions that are always conducive to the spread of this disease. The first and foremost of this local condition is one of segregation of a tuberculous patient. It is well to remember that Tuberculosis is infectious, that it spreads from one tuberculous individual to another. If there are no cases of Tuberculosis, there can be no spread of Tuberculosis at all. The sputum that is brought by a tuberculous patient is the source of further infection and if a person who is suffering from Tuberculosis is not segregated, he is a source of infection through his sputum. The infection is greater when the individuals that come in contact with him are younger. *Within three years of life the chances of catching the infection are very great, but as age advances the natural resistance of the individual does play a part and the infection does not become so acute as in infancy, nor does it lead to such high mortality as in infants.*

Certain other social factors are also conducive to the spread of this disease. The persistence of early marriages among us in spite of a certain amount of legislation is still a great factor in its spread. Early marriages often lead to early motherhood which in turn exposes the mother to further infection either due to the ill-nourished condition of the mother, or due to the chances of sepsis occurring. Purdah system still persists in certain places.

In certain communities partaking of eatables and food from the same plate is still in vogue. If any tuberculous patient happens to be a member of that party woe unto the people who join them!

Conditions like kissing and fondling of children still continue, not knowing the dangers to which they expose their children by these methods. In addition to these things, there is a colossal amount of ignorance of the elementary principles of this disease which in its turn leads to neglect to take the necessary precautions which always lead to the spread of this disease.

There is a colossal amount of ignorance even among the educated people. It is by means of a systematised intensive and at the same time continuous

propaganda that the dangers of these factors which influence the disease should be brought to the mind of the masses and educated in the prevention of this disease.

To prevent this disease, it is necessary that the following precautions should be taken :

The precautions can be divided into personal and public. The precautions to be taken by the public include the aid of the state as well. The measures to be taken in this connection are :

The economic condition of the people must be improved ; the standard of living should be raised. The nourishment must be of a better standard and of a more nutritive value. Researches should be made so as to give us a cheap diet but at the same time rich, so far as nutritive value is concerned, cheap in money but rich in nourishment. We have very many articles of diet which are richer than rice, such as Ragi, Wheat, etc., but unfortunately we do not use them as sufficiently as they deserve. Demands must be made by the State to impart the results of these researches to the masses so that they may understand the value of food, what food should be taken, what should be avoided, etc.

The public health of the country must be improved. The sanitation must be improved. Model houses or tenements must be built for poor people to live in, with little or no rent and precautions must be taken to diminish the occurrence of epidemics as much as possible. Any condition that lowers the general health must be got over. Legislation must be passed for sale of wholesome food and also to control the contamination that may take place in foodstuffs. Articles of food like milk, buttermilk, etc., which become easily infected should be scrupulously watched. *Persons who have any infectious disease should not be allowed to handle food-stuffs.* Legislation should be passed to make Tuberculosis a specially notifiable disease so that necessary precautions may be taken whenever a case occurs.

In addition to these measures, continuous propaganda must be made by means of lantern lectures, cinema demonstrations, health-week celebrations and distribution of leaflets wherein the various aspects of Tuberculosis are clearly explained and their methods of prevention are also made known. *It may be necessary and I would consider it also imperative that compulsory teaching of hygiene must be introduced in the curricula of studies in schools and colleges so that when the students come out of their schools and colleges, they may have a working knowledge of the elementary principles of hygiene and public health.*

The personal factors in the prevention of this disease are that every individual must realize that he owes a duty to his neighbour and to the public. Every attempt must be made by the individual to minimize the risk of further infection.

The following instructions can be observed in preventing further spread by the individual :

Segregation should be made as soon as an individual is diagnosed to be suffering from Tuberculosis. It is best in the interests of himself as well as his neighbours and relations to get himself admitted into an institution which is specially suited for its treatment. By this admission into an institution he derives two benefits :—One, he gets his condition attended to and cured and secondly, he saves his friends and relations the danger of infection.

When segregation is not possible by being admitted into a hospital, the following precautions must be taken :

He should sleep alone in a separate room with all the doors and windows open. If no room is available, he must choose a verandah which serves the purpose admirably well. Secondly he must take care of the sputum he brings out. He must see that there is no chance of the sputum either drying up and getting into air as small particles or flies sitting on it and carrying the infection to other members of the family by contaminating their food and drink. He should take care to see that articles and vessels which are used by him are kept separate and that they are not mixed with other articles of the family. His clothes and beds should be separate and he should not fondle children or even kiss or allowed to be kissed by others. *The principles of hygiene must be observed as far as possible. Living in crowded houses should be put a stop to as far as possible. The houses chosen for living must admit large quantity of fresh air and sunlight.* The floor *should be free from damp. Social conditions which increase the spread of the disease must be prevented by personal influence.*

Early marriages should be put a stop to.

Care must be taken of coffee hotels and other clubs where a large number of people meet. The authorities of these institutions must be enforced to clean the vessels thoroughly by putting the vessels, etc., for at least three or four minutes in boiling water before they are given to others for use.

It is necessary that in addition to these precautions, the individual must try to protect himself when an open case of Tuberculosis occurs in his family. He must undergo a thorough

overhauling periodically by a medical man. He ought not to be satisfied unless a clean check is given to him. The importance of this examination is greater if there is an open case of Tuberculosis in his house. When there is an open case of Tuberculosis, all the members of the family who come in contact with the individual must be examined, if necessary, periodically, especially if the contacts happen to be children. By means of this examination of the contacts, latent foci of infection in people who look apparently healthy may be diagnosed. Early detection by means of examination of the contacts which is carried on systematically should, to a large extent, remove the spread of this disease as well as mitigate the danger of infection. Remember that Tuberculosis is a curable disease and earlier it is detected, greater are the chances of complete cure and shorter the period of treatment. It is not enough if a cursory examination of the individual is made. It is necessary that a thorough overhauling must be done.

In addition to these precautions that have to be taken by the public and by the individual, another essential machinery that is necessary for the purpose of early detection and treatment of these cases should be put into action. This is what is called the curative side of the disease. Large number of dispensaries should be opened in many centres manned by skilful and experienced medical officers. Attempts should be made to diagnose the disease in its very early stage at these dispensaries and the proper treatment given. Hospitals and sanatoria must be opened in large numbers so that sufficient beds may be available for all cases which have been diagnosed to be suffering from Tuberculosis at the dispensary. Mere act of diagnosing the case does not satisfy the patient. He would not be satisfied unless he is taken into an institution and cured of the disease. Hence it is essential that a large number of beds should be made available for the treatment of this disease.

It may not be possible at present to possess a sanatorium or hospital for every town though it may be ideal, but I would suggest that a group of districts which are neighbours, *e.g.*, Chingleput, South Arcot and North Arcot may join their forces and establish a sanatorium exclusively intended for the benefit of the patients from these districts. In the same way, sanatoria may be established for groups of districts until the financial position is improved and each district can have its own sanatorium.

It is necessary that after a patient has been discharged from a sanatorium or hospital, he should still live a life of protection to a certain extent because he should be watched for sometime so that the chances of any relapse may be avoided. He will not be in a fit condition to compete for work with a healthy individual who is not an ex-patient. The strain of this competition may break his health. Hence it is necessary that the ex-patients who are discharged from hospitals and sanatoria should be encouraged to live in colonies or settlements where the competition is among themselves. They may be allowed to live there with their wives and children and certain occupations may be taught which may bring a source of revenue to the colonies. Occupations like gardening, basket-making, poultry-farming and others could easily be instituted in these colonies and the produce of these colonies must be bought by the hospital and the sanatoria. If ex-patients are allowed to live in these colonies for a period of 5 to 10 years, this would stabilize a large portion of their strength and if they come into the general world later, they would not run the risk of relapse.

(*From "The Miscellany"—Journal of the South Indian Branch of The Indian Medical Association Vol. XIV No.* 4.)

TUBERCULOSIS CLIP SHEET

Preventive medicine requires the co-operation of the patient, and this in turn predicates the existence of a personal and confidential relationship between the physician, who serves as Health advisor, and the family. Medicine in the Changing Order, Rep. N. Y. Acad. Med. Comm., The Commomwealth Fund, 1947.

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Some families who have had tuberculous patients at home have been most helpful in aiding other families to accept care, hospitalization and detailed rehabilitation plans. They have been very helpful in the community in pointing up, through their own experiences, the reasons why the community was not meeting effectively the needs of its tuberculous families. Tuberculosis can become a very expensive affair both in money and human lives to a community which does not have an adequate tuberculosis program. Margaret S. Taylor, R. N., Conf. on Rehab. of the Tuberculous, Mar. 4, 1946.

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Although the X-ray apparatus detects pulmonary lesions more readily than the stethoscope, chest roentgenology has not yet advanced to the point where it can be substituted for logic or reasoning Diagnosis is a function of logic, and the diagnosis of chest diseases, especially tuberculosis, depends on the correlation of clinical, roentgenologic and bacteriologic studies. No X-ray machine can do this. The diagnosis of tuberculosis or its degree of activity should never be based wholly on the X-ray report of the chest findings. "Never put your complete trust in shadows" is a sound medical adage that applies especially to tuberculosis. Joseph D. Wassersug, M. D., N. E. Jour Med., July 13, 1947.

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(*From the National Tuberculosis Association, 1790 Broadway, New York.*)

MATERNAL AND CHILD HEALTH

by

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In our country our administrators rest content with the appointment of a high paid officer to be in charge of Maternity and Child Welfare and with the opening of a few centres here and there. No one is worried about an analysis of the results achieved by such appointments or through such centres. How far the environment influences the child mortality does not seem to have been recognised. We invite special attention of our readers to the paragraph under "External and Internal Sanitation". Our Expert Advisers also would do well to peruse the article which we reprint hereunder. The subject is one in which the people at large should be as much interested as the Experts who are appointed to render service to the people in this respect. (*Ed.*, P. H.)

NO one will question the great importance of the subject of infant mortality which is to take up two morning sessions of the Congress. The subject is of primary importance. It is fundamental to the prosperity and happiness of family life; and beyond its effect upon the family, it has political importance in affecting the welfare of all nations. It is indeed worthy of the two days' discussion given to it at the present Congress; and in the past, it has played a large part in the work, policy and discussions of the Royal Sanitary Institute.

Those of us who have been asked to open and introduce various aspects of this great and complicated subject, appreciate the honour and responsibility of our task; and on my own behalf I wish to express my sincere and warm thanks for the honourable privilege of opening the discussion. We well realize the opportunity and duty placed upon us of securing a thorough and constructive discussion. We know that we are speaking to an audience, not only interested in the subject, but with knowledge and practical experience of it, and as opening speakers, our main object will be to evoke free and lively discussion and a frank and critical exchange of view.

In the opening addresses this morning, I shall speak of clinical aspects of infant mortality, while Dr. Hallum and Dr. Crosse will deal with the great subject of prematurity; and to-morrow problems of statistics and administration will be taken up. Before I enter into the details of my own allocation, it may be useful to us to take a general view of the whole subject. The phrase "infant mortality" has a deceiving simplicity which remains in the mind even when we have grasped its exact definition. It goes far deeper than its medical terms, for it describes one of the old universal sorrows of mankind, and raises deep social, moral and religious issues. Mortality is the inescapable fate of man and is a part

of our human nature; but mortality in infancy seems contrary to nature. This simple phrase thus describes a great tragic and complicated subject; and if we are to discuss it in a practical and useful way we must try at the outset to get a view of its main component parts and to unfold its complexities in simple and general terms.

THE MEASUREMENT OF INFANT MORTALITY

I am not going to encroach on the ground of to-morrow's statistical communication by Dr. Russell and Dr. Evans. We all accept the necessity and value of statistics in dealing with any problem, medical or other: and particularly so in a complicated medico-social problem such as infant mortality. Statistics apply measurement to any subject, both as a whole and in its parts. But with regard to infant mortality it is only in recent years that we have taken the full statistical measure of infant mortality. For the infant mortality rate does not give us the full measure of infant mortality; it measures only those infant deaths that occur between the completion of birth and the end of the first year, and leaves out of count the large number of deaths that occur during the birth process (still-births). The total infant mortality is the sum of the deaths that occur during birth and throughout the first year of life. In England and Wales our records of "infant mortality rates" go back a hundred years and more, but our records of still-births began barely twenty years ago; so that it is only recently that we have brought the total mass of infant deaths under statistical measurement. And even now, in discussing the subject of infant mortality, it is common to consider only infant mortality rates, and to leave outside our consideration the mass of still-births and to neglect the guidance that still-birth rates can give. But the complete study of infant mortality, including still-births, leads at once to two quite distinct clinical aspects of infant mortality and opens up two different problems of administration. Administrators and clinicians have long been aware of these two groups of infant deaths, but they have only recently received the valuable guidance of statistical science in measuring and dealing with them.

THE TWO MAIN GROUPS OF INFANT DEATHS

Let us take a few examples of infant deaths. First, of still-births, where in one case a healthy full-grown baby is asphyxiated by the prolonged pressure of a difficult labour; or in another where the labour is quite easy, but the baby is premature and small, and the fragile breathing mechanism is cut short by ordinary pressure; or in a third, where there is some gross malformation which destroys an already damaged life. There are many more pathological types which account for the large total of still-births; but they may all be described as antenatal and natal deaths, because their original causes are dependent either on conditions in the mother during pregnancy, or on conditions during labour and delivery. And in spite of the complications of the pathological problems, the preventive problem is simpler and consists in maintaining the highest standards of the mother's health during pregnancy, and the highest degree of obstetrical skill in the management of her labour and delivery.

In the next group of infant deaths that occur after birth and within the first year, there are again many different diseases that may attack life and cause death. But the predominant group are infections to which the baby is most vulnerable from the moment of birth, and whose attack is especially concentrated on the alimentary and respiratory tracts. These many and different infections, and other non-infective diseases, create many urgent clinical and pathological problems

but again the problem of prevention is simpler, and consists in a high standard of infant care exercised by the mother in the home, and above all in a high standard of domestic hygiene.

THE MINGLING OF THE TWO GROUPS IN THE NEONATAL PERIOD

These two groups of infant deaths are not distinct, with a clear-cut division between them. The pathological conditions that cause the sudden catastrophe of still-birth—asphyxia, intracranial hemorrhage, congenital malformations, and prematurity—may fail to kill during birth, but may produce death some hours or days after birth, or even later. And these postponed deaths take place in large numbers throughout the first month of life, and produce in this early postnatal period a mingling of the two groups. Much study is now being given to the neonatal period (the first month), to its critical and dangerous character, and to the concentration within it of many important clinical problems, both physiological and pathological. Here the problems and dangers of two worlds, the antenatal and natal world on the one hand and the postnatal on the other, jostle together; and many deaths in these early weeks that statistics appropriate to the postnatal group and include in the infant mortality rates, really belong to the antenatal and natal groups and to the still-birth rates. This fact is, indeed, partly recognized by the statistical separation of the neonatal period; but the tendency at present is to place these neonatal figures too much alongside the whole totals of the first year, and to neglect their closer affinity to the still-birth rates. The general statement may be made that a majority of neonatal deaths in all national statistics belong to still-births and are their aftermath; and that the lower the national infant mortality rate, this majority becomes even greater. Can we give more precision to this general statement and get even an approximate statistical calculation of the numbers of neonatal deaths that belong respectively to one or other of these two groups of infant deaths? I have pondered over this problem, and suggest that if all infant deaths in the first week of life were added to the still-births, and if these first-week deaths were subtracted from the total of first-year deaths, we would obtain a rough statistical approximation of the numbers in the two main groups of infant deaths. In the first week of life the postnatal causes of death play a very small part, while the antenatal and natal causes have largely but not entirely spent their force. Taking an example from the official national statistics of England and Wales and Holland in 1938, the new grouping of figures is shown in the two centre columns of the table below:

Year. 1938.	Still-birth rate.	Death-rate, first week.
England and Wales	38	21·2
Holland	25	16

Year. 1938.	Combined still-birth and first week death-rate.	Death-rate, two weeks to twelve months.
England and Wales	**59·2**	**31·5**
Holland	**41**	**20**

Year. 1938.	Death-rate, neonatal.	Death-rate, first year.
England and Wales	28·29	53
Holland	21	36

I should like to have critical discussion on this attempt to reach an approximate estimate of numbers and rates of death in these two groups of infant deaths. Although only an approximation, it gives the medical planner and administrator a clearer picture of the whole infant mortality problem in his area, and of the respective sizes of its antenatal, natal and postnatal divisions.

PREMATURITY

A few words may be said here on the important problem of prematurity in its relation to this division of infant deaths that we have been discussing. Premature babies make a large contribution to infant mortality, and one out of all proportion to their numbers; and they swell the lists of still-births, of neonatal deaths and of later infant deaths. The management of the problem must therefore be shared by the maternity services, and by the medical and nursing services of the baby after birth. Dr. Hallum will deal in detail with these matters.

INFANT MORTALITY—THE PRESENT POSITION

This will be carefully examined to-morrow both in its statistical and administrative aspects. To keep our whole subject in perspective, a few general remarks may be useful at this point. The present position can be regarded as satisfactory when we consider the adverse circumstances of the last eight years. During the war there has been a steady and substantial fall in still-births in England and Wales: in 1939 the rate was 38, and in 1945 it had fallen to 28. The infant mortality rates, although rising sharply in the first two years of war, dropped back again, and in 1945 stood at 45 for England and Wales. In spite of the anxieties of war, the worsening conditions of housing, the dislocations of home life, and the restrictions of diet, these declining still-birth and infant death rates have encouraging significance, showing that there has been a measurable improvement in the health of mothers during pregnancy and a higher standard of infant care after birth. These good results have been achieved by special and new measures to improve the diet of mothers during pregnancy and the care and feeding of infants.

Up to the outbreak of war the infant death-rates in England and Wales were moving steadily down. And as year by year these declining figures were reported to the public, there was natural satisfaction and a feeling that all was well. The phrase "record figures" appeared again and again both in official announcements and in press comments. It was true that they were record low levels for this country; but the same words could have been used in every decade since 1840. But it was not made known that in the annual international competition in infant death-rates, England was not among the leaders: that in 1938 England's "record figures" for that year only obtained for her seventh place in the international race, while Scotland's figures (also a "record" for Scotland) gave her only fifteenth place on the list. The comparison of death-rates of different countries requires a careful study of the methods of obtaining and registering the medical certificates, and of the medical nursing and social services in operation; but when necessary allowances are made, there is great advantage in studying the vital statistics and social services of countries that have been more successful than ourselves in their control of infant mortality. Dr. Russell's and Dr. Gordon Evans' observations on this subject will be of great interest and value.

The present position of infant mortality in England and Wales may be stated broadly as follows. The whole aggregate (still-births plus postnatal deaths) is being steadily reduced: this reduction is substantial in both the antenatal, natal and the postnatal groups; it has been greater in the postnatal group, and in the future the reduction will probably continue to be relatively greater in this group. The rate of reduction will depend upon the increased efficiency of the two medical nursing services that are in operation. Of these two services, the maternity service has been organized for several hundred years, is more efficient, and is well equipped to secure further reduction in its group

of infant deaths. The infant welfare service has existed as a national organization for less than thirty years, and is still short of its potential of efficiency, but has the opportunity of achieving a bigger reduction in its group of infant deaths, namely, those occurring after the first week of postnatal life.

This general statement of the position has raised the broad administrative problem that faces the maternity and child welfare services, but behind the administrative problem lie the clinical and pathological and social facts that set the problem. These facts constitute what may be called the clinical aspects, and I shall conclude my remarks by dealing not in detail, but with the broad principles of these clinical aspects.

CHAIN OF CAUSES IN INFANT DEATHS

In this stricken field of infant mortality most of the deaths have not a single cause, but a chain of causes. For example, take a still-birth. The immediate cause is found to be asphyxia; but there are intermediate causes—prematurity and toxæmia in pregnancy; and further up the chain, general ill-health before and during pregnancy, until the first cause is found to be the poor diet of the mother. In view of the revelations of inadequate diets in pregnancy, and the suggestive reduction of still-birth rates during the war, with its special priority provision of good food to pregnant women, there is reasonable hope that the widespread organization of good dieting and improved general care of pregnant women will further reduce the deaths in the antenatal group.

Let us take another example, and this from the postnatal group. A baby two months old has died after a short and severe illness. The immediate cause of death is found to be gastro-enteritis. But preceding this obscure and deadly infection, there have been a group of earlier and other causes—failure of breast-feeding; mismanagement of bottle-feeding; a crowded and dirty home; a narrow sunless and dirty street; the mother employed in keeping other houses clean, and unable to dust and scrub in her own; the mother, physically in poor health, dejected in spirit, and ignorant of these many dangers threatening the life of her baby, and the health of her other children. In this example of infection causing an infant death, there is a chain of many causes in the environment, but it leads back to the mother; to her health, her knowledge, and above all to her will and conscience; and to the concentration of all her powers on her ordained task in the home. In this example of an infant death and its causes, the clinical aspects of the death begin with medical and pathological facts, but pass soon into the wider region of economics and social customs, and then into the central and ultimate laws that govern the life, the family and home.

INFANT MORTALITY AND PREVENTIVE MEDICINE

We are trying to see the whole aggregate problem of infant deaths and to consider the broad principles of a medical and social policy that will bring it under ever better control. That policy must be wide; it must include the actual immediate treatment of many diseases in mother and child, so far as these are amenable to cure; but the greater and more radical part of this policy must lie in prevention.

Preventive medicine has done splendid work in reducing infant mortality; the falling trend of the death figures in the last hundred years, and especially in the last forty years, are impressive and incontestable proof of this. This achievement has covered the whole field of maternal and infant health. For the purpose of this discussion the details of this advance need

not be given, but attention rather drawn to some points in which future policy may be strengthened.

EXTERNAL AND INTERNAL SANITATION

The first point that we might usefully discuss is sanitation. The whole business of sanitation is to destroy, reduce or control infection. After the first week of life, infection is the cause of the great majority of infant deaths. And where a nation or a great city has succeeded in bringing down to a low figure its infant mortality rate, it is largely in the postnatal deaths that the reduction has been made; and these low figures are mainly explained by the efficiency of organized and of domestic sanitation in controlling and preventing infant infection. For there are two kinds of sanitation. There is external or community sanitation, an elaborate machinery dealing with water supply, drainage, refuse disposal and food preservation. And there is internal or domestic sanitation by which infection within the house, which is always there and always menacing, is kept at bay by the determined unrelenting efforts of the housewife. It is only where both these kinds of sanitation are in a highly efficient state that there can be the lowest number of infant deaths from infection. How does this criterion apply to the trend of infant mortality rates in England and Wales in the last forty years? This trend has been steadily, indeed substantially, downward; but we have been outdistanced by all the other great Commonwealths of the British Empire, by the U.S.A., and by four or five of the smaller European states. I suggest that the reason for our failure to reach the best in control of infant mortality is that our standards of domestic hygiene have remained poor, while our external or community sanitation is probably as good as anywhere else in the world. The low standards of our domestic hygiene were revealed in a flash by the lousy heads and dirty habits of many of the children of our large cities on evacuation to the country in the autumn of 1939; and they are being continually advertised by the incidence of scabies and pediculosis in the reports of our school medical officers. England has been a great pioneer in sanitary reform; and our falling infant mortality rates are largely explained by our first-class sanitary engineering and by our great improvements in housing since the new century began. But our standards of internal sanitation, the hygiene of the home determined by the cleanness of the rooms and of the bodies of their occupants are still too low. And they cannot be raised by the cleansing departments of local authorities, but only by the sanitary faith and works of the housewives themselves. In the sphere of domesic hygiene the undivided responsibility is the mother's and it is for the wisdom of the administrator and the patience of doctors and nurses to make her realize this responsibility and assume its burdens.

INFANT FEEDING AND BREAST-FEEDING

Since the general establishment of the maternity and child welfare service about 1920, there has been substantial improvement both in the more skilful modification of cow's milk and also in its better disinfection (sterilization). But Breast-feeding, universally extolled in theory, is mismanaged and neglected in practice. Breast-feeding is unrivalled, because it provides at once both better digestion and nutrition and because in the manner of its administration it gives almost perfect protection against infection. If we could greatly increase the practice of breast-feeding in the homes of the working classes, where housing conditions and domestic hygiene multiply the risks of infection we would at one stroke greatly neutralize the attack of home infection. This is shown by the fact that in our children's

hospitals it is an uncommon—nay, a rare event—for a breast-feed baby to be admitted with serious infection and especially with that deadly infection gastro-enteritis. The prevailing neglect and mismanagement of breast-feeding, combined with low standards of domestic hygiene, must account for thousands of baby deaths annually. This neglect exerts its greatest effect in the first month after birth; it is present in many of our maternity hospitals, and it is continued in the lack of supervision given by doctors and nurses to the maintenance of breast-feeding at home. But there is another side of the problem, and this lies in the increasing unwillingness of mothers to assume the burden of breast-feeding, and so unwittingly to deny the babies this superb assurance and safeguard of health in the first dangerous months of life.

HOME ADVISERS AND HEALTH VISITORS

We are looking at this still great though diminishing mass of infant deaths: we have divided their primary causes into those that are antenatal, natal and postnatal; we are not now discussing the economic, social and, environmental conditions which indirectly but powerfully threaten the life of infants; but let us consider how inside the home the mother may be fully assisted in her task of infant care. Infant care consists largely of supplying food and protecting from infection. This is a simple programme, but it is fraught with the great issues of life and death: and these issues are determined in the home and by the knowledge, devotion and health of the mother. Working inside the home is a personal service of doctors and nurses. But this is preventive medicine, and this personal service is neither a medical nor a nursing service: it is a service of education and exhortation. Although this home service is at present inefficient and badly organized and linked up, it is there, and presents a great opportunity and a difficult problem to the medical administrator and to the local authority. The family doctor, by his knowledge of all the circumstances of the home and of the parents and children, and by the bonds of trust and friendship that exist between them, is the medical person to undertake this service, and at his side is the health visitor ready to instruct in the principles of feeding and of domestic hygiene and their application. I make this proposal to an audience experienced in administration. Under the new service, mothers and children will come under the care of general practitioners, while the responsibility for maternity and child welfare will remain as at present with the local authorities and the special medical and nursing services. This proposal does not involve the shutting down of infant welfare clinics: these have made a great contribution to infant welfare and are likely to remain and become strengthed.' It involves the setting up of a new home organization of infant and child health, in which the home and family doctor will be used to the fullest extent in the field of home and family health and will work according to plans drawn up by the medical officer of health.

Lord Dawson said in a debate in the House Lords in 1943: "The care of child health should take precedence over almost everything else at the present moment." I submit that we can strengthen our policy of child care by attacking these great conjoined problems of infant mortality and disease in childhood in their central stronghold, which is in the home; and can do so by adding to our existing maternity and child welfare services, a home service of instruction and exhortation consisting of the family doctor and the health visitor. Once the principle of such a home service is accepted, the question of the training of the family doctor for this new task and of further training of health visitors will have to be considered.

THE MOTHER AS A SOVEREIGN POWER

In the problem of infant mortality we have seen that the control of the problem is centred in the mother; and in the wider problems of childhood, the mother again stands out as the indispensable agent by which life and health are secured to the infant and child. The mother might indeed be called the prime minister of child health: and if we are to secure to the widest extent and in the highest degree the health and well-being of children, the place of the mother in the little society of the family must be secured, her powers maintained at the highest pitch, and her prestige defended from every encroachment. In the society of the family, the mother must be the sovereign power, receiving from the community all conditions and facilities necessary for the upbringing of children, and devoting her time and energy to her task, if the prosperity of the family is to be kept at the highest level. We are told that our state economy requires the employment of married women in industry. If this is so, the economy of the state is directly opposed to the healthy, economy of family life; and in the case of infants, the employment of mothers in industry swells the lists of infant deaths. The State attempts to mitigate this evil by the provision of infant nurseries; this may be a dire necessity in time of war, but it is not justifiable as a part of our permanent social policy. There are many other ways in which the sovereignty of the mother in the life of the home is being broken, and in which her responsibilities for her children are being gradually taken from her. These matters cannot be dealt with here and now; but they lie at the root of the problem of health in childhood: and the best results in infant and child health will not be attained unless the sovereign power of the mother in the family is restored.

John Burns of Battersea, a great-hearted pioneer, in infant welfare, said in 1906 in an address to the First National Conference on Infant Mortality: "First, concentrate on the mother. What the mother is, the children are . . . Let us glorify, dignify and purify motherhood by every means in our power."

If we remember and give effect to these words, alongside our other plans and techniques, there will open a new chapter in the history of the maternity and child welfare service, in which infant mortality will be reduced to its minimum, and in which our mothers, fully conscious of their powers and responsibilities, and given all due assistance, will secure to a degree hitherto unknown the health and happiness of their children.

(From Journal of the Royal Sanitary Institute, Vol. LXVII—No. 5.)

In our view, a progressive improvement of the public health depends largely on promoting the hygienic mode of life among the people through education directed to this end. It is among women and children that this education should be carried out intensively in order to produce lasting results.

(Bhore Committee Report, volume II, page 41)

NUTRITION IN WAR AND PEACE

by

Frank G. BOUDREAU, M. D.,

Apropos of the present food situation in our country, we trust our readers will be interested in the following extracts from a paper read by Dr. Boudreau before the conference of Health Authorities of North America in Quebec, on May 21, 1947. Dr. Boudreau is the Executive Director of the Milbank Memorial Fund, and Chairman of the Food and Nutrition Board, National Research Council, U.S.A. We invite special attention to the four items of practical nutrition work which according to him, every health department should undertake *forthwith*. The department should not, however, plead paucity of personnel to undertake this work. It should prominently bear in mind that our Governments have not got plethora of funds to employ an army of technical men. The administrative capacity of heads of departments, should be reflected in utilising the *available* men to their *maximum capacity* and in alloting the work, *appropriately* among them befitting their training. If the time of our medical health experts is wasted on duties beyond their capacity and training, as for instance on environmental sanitation, naturally they cannot find time to do their legitimate work. Our administrations should lose no further time in delimiting the functions of our Medical Public Health Experts and pinning them to their responsibility. (*Ed.*—P.H.)

Let me begin by trying to recreate for you something of the atmosphere of the early 1930's when the world witnessed the spectacle of hunger and malnutrition among vast numbers of unemployed workers and their families, while the world's granaries were bursting with food that could not be sold. Food surpluses haunted the minds of leaders in government while bread lines formed below their windows, and the unemployed sank lower and lower into misery. Governments bought up these food surpluses, dumped them abroad, denatured them so that they would be unfit for human use or destroyed them. In these circumstances, the outbreak of a Second World War could not have come as a surprise to the most casual student of world affairs.

It was at this time that delegates to the League of Nations, together with League officials, launched what came to be known as the world food movement, designed to release the economic jam by emphasizing that adequte diets were essential to human health, and that in supplying the raw materials for such diets, agriculture throughout the world would rise from its depression and in rising, carry with it the industries needed to supply farm machinery, fertilizers, housing, roads, marketing

equipment, and other essentials for agricultural rehabilitation.

* * *

A committee of physiologists convened by the League set out for the first time in history a table of optimum dietary standards, and national nutrition committees or Councils were set up in more than a score of countries. It was the belief of many, that had this movement been started early enough, the train of events leading to the Second World War might have been halted.

* * *

And while we have learned to produce an abundance of food, our knowledge of human nutrition has increased so that we understand something of the important relation of food to health. The best fed peoples of the earth live longest, have the greatest physical and mental energy, possess the most abundant health and the greatest enjoyment in life. In view of our ability to produce enough of the right kinds of food to feed the entire population of the world, and in the face of our knowledge that the best fed peoples are the most healthy and prosperous, can our society endure once again the spectacle of two-thirds of the world's people malnourished or starving while food surpluses pile up or are destroyed?

* * *

In 1937 there appeared in Great Britain under the title FOOD, HEALTH AND INCOME,, a report on adequacy of diet in relation to income. The report was based upon a survey of 1,152 family budgets, selected so as to constitute as representative a sample as possible. The conclusions of the report caused shock, surprise and aroused antagonism. Fortunately, when criticism and questioning had ended, action followed, and a far-reaching program for better nutrition, particularly of low-income families with children was adopted and carried out. The result was that when war came, the people of the United Kingdom were better fed than they had ever been before.

* * *

The lessons of this survey were so impressive and the memory of the First World War when the British people were threatened with starvation so vivid, that when war broke out in 1939, the Government took steps to carry out a food and nutrition program which would [redacted] for all the people, the food needed for their [redacted] and working capacity. A scientific advisory committee on food and nutrition policy was set up by the Cabinet to which it reported directly. Its recommendations may be summed up in a sentence: everyone, without regard to income, should be supplied with food according to his or her physiological needs. This policy was put into effect and carried out along the following lines:

A system of rationing was enforced, based on the principle that all the essential nutrients, even if in short supply, should be equally available to everyone to the extent necessary to maintain health, and at controlled prices.

Some common foods such as bread and potatoes were left unrationed, so that the differing requirements of human beings could be met by the individual.

For nutritional and transport reasons, bread was made from 85 per cent extraction flour, instead of the usual 70--72 per cent extraction.

Expectant and nursing mothers, infants and school children, were assured of an optimum diet regardless of their purchasing power. This meant that these groups had priority in the supply

of such essential foods as milk, eggs and fruit. Cod liver oil and food, rich in ascorbic acid were also provided for these groups. School meals were made available in all the schools. Over a million and three-quarters of these were served in 1945, this amounting to 36·3 of the total school attendance.

By the end of the war, three-quarters of all school children were receiving milk at school either at one third of the market price or free. For adolescents working in factories so-called National Milk Cocoa was made available at a nominal price.

Margarine was fortified with vitamins A and D, calcium was added to flour and vitamin D to dried milk.

The well-to-do could buy extra meals in the regular restaurants, and to equalize the position and provide for the greater needs of working people, British restaurants were set up where substantial meals of nourishing food could be obtained at cost. Similar provision was made for factories, and those which employed 200 or more workers were required to provide canteens or cafeterias. Special arrangements were made for the inmates of institutions and for invalids. The essential feature of the whole scheme was that each individual, regardless of income, had a right to the food necessary to maintain his health.

Having made the best possible plans to feed the people adequately, the next step was to see that they were working out properly. For this purpose a complete system of dietary, weight, and clinical surveys was inaugurated. Dietary surveys revealed whether representative samples of the population were receiving adequate diets, weight surveys showed whether the calorie content of the diet satisfactory, and clinical surveys, the presence or absence of nutritional deficiencies. The clinical surveys were of two types : the rapid examination by medical officers of hundreds of persons weekly to detect clinical signs indicative of a deficiency, and the more thorough survey including biochemical examinations of the blood and urine of several hundred people in a town by a mobile team from the Oxford Nutrition Survey. A few words about the results of these assessments are pertinent here. These " suggest that the nutritional state of the nation was not worse at the end than at the beginning of the war, and as regards children was somewhat better ". Again, " Although the child at the end of the war was bigger, more resistant to disease, better nourished and in every way had borne the strain of war better than his predecessor of the last war, much remains to be done before the average elementary school child can be assured of that physical development which he is inherently capable of attaining ".

As regards anaemia in women and children " it seemed fairly certain that no greater degree (was found) than in the limited number examined before the war, and that in certain groups there was probably less ".

* * *

What have been the results of the wartime policy respecting food and nutrition in the United Kingdom ?

Here is the story as told to the British people over the radio by Sir Wilson Jameson in December, 1944.

> After five years of war we still have a good story to tell. The most sensitive index of a nation's general health is probably the proportion of infants dying in the first year of life. In the last war it rose steadily. During the last three years it has declined steadily and last year, was the lowest ever recorded. The most risky time for a baby is its first month of life. Well, we've got a new low record there ; and as for the tragedy of babies born dead (stillborn as we say) I can tell you that the chance of this happening is only three-fourths of what it was five years ago. The death rates for children up to ten years of age were last year the lowest on record, as was also the proportion of mothers dying as a result of their confinements. As the war has gone on, the vital statistics for mothers and children have continued to improve and in the fifth year they're the best we ever had. This can't be just an accident. All that's been done to safeguard mothers and children must have had some effect—such things as the national milk scheme, vitamin supplements for mothers and children, the great extension of schemes for school meals and milk in schools. There are doubtless other factors—full employment and higher purchasing power in many families, especially in the old depressed areas ; as well as the careful planning from a nutritional point of view of the restricted amount of food available for the nation.

The following is taken from a lecture by Dr. Magee :

* * *

> The other environmental factors which might influence the public health had, on the whole, deteriorated under the stress of war. The public health, so far from deteriorating, was maintained and even in many respects improved. The rates of infantile, neonatal, and maternal mortality, and the stillbirth rate reached the lowest levels ever. The incidence of anaemia declined the growth-rate and the condition of the teeth of school children were improved and the general state of nutrition of the population as a whole was up to or above prewar standards. We are therefore entitled to conclude that the new knowledge of nutrition can be applied to communities with the expectation that concrete benefit to their state of well-being will result.

* * *

One of the most important problems facing the United Nations to-day is that of adapting agricultural production, economic and fiscal policy to a world in which the fear of unsaleable surpluses of food exists side by side with hunger and malnutrition among something like two thirds of the world's population. There can be no political security, no peace in the world until this problem is at least on the way to a reasonable solution.

* * *

In the face of the experience I have cited, health workers can no longer be content with desultory programs of education in nutrition and superficial systems of medical inspection of school children. The maintenance of a good state of health which is one of the results of an adequate diet, is surely no less important than the prevention of specific diseases. Yet in the modern state, lack of income is no bar to immunization against small-pox and diphtheria ; while there is no similar general provision for

giving pregnant women whose diet is inadequate, the nutrients necessary to maintain the health of mother and offspring.

* * *

As for the programs themselves, the subject is so vast that I must confine myself to the merest outline, emphasizing a few essential activities.

A. Research and investigation are two of the most important items in such a program. Leaving out the kind of fundamental research which advances our knowledge of the science of nutrition, I emphasize the need for investigation of the problems which confront the health officer. What is the state of nutrition of his people? How adequate is their diet? Which classes in the community require special attention? These and similar questions can be answered by dietary, clinical and biochemical studies of representative samples of the population. Experience teaches that classes which are under pressure of stress from any cause are most apt to be malnourished. This at once draws our attention to pregnant women, infants, school children, adolescents, invalids, convalescents, and the aging, particularly as these are found among the lower-income groups.

B. In carrying out nutrition programs a good beginning can be made with pregnant women, who should receive an adequate diet from the beginning of pregnancy. Here it is not sufficient to attempt to educate the pregnant woman in good food habits; if necessary, she should be supplied at public expense with the supplements which investigation shows are necessary to bring her diet up to adequate levels. Many animal and human studies have demonstrated that a good nutritional status during pregnancy will reduce the toxemias, cut down maternal mortality, lessen premature births, and greatly reduce infant mortality from this cause. I can think of no better way for the health department of a large area to demonstrate the potentialities of a modern public health program than a campaign to raise the diets of all pregnant women to adequate levels. In Wales, during the war, the death rate from prematurity which was at an unusually high level, was reduced to one of the lowest in the United Kingdom by this means.

C. Special attention to the diets of industrial workers is also worth emphasizing. The issue of the late war depended as much on the output of munitions as it did upon the result of military and naval engagements. When this came to be realized in the United Kingdom, in Canada, and in the United States, special machinery was set up to ensure that workers were well fed. In all countries the results were excellent. In the United States, as a result of the campaign, proper facilities were provided in large plants for feeding many millions more than before the war or in the first war years. Industrial feeding programs lend themselves readily to programs of education in nutrition; employers and management co-operate gladly because they have found that the provision of suitable facilities for feeding their workers is an important factor in improving labor relations. Special attention should be paid to workers in the heavy industries whose caloric expenditure is high.

D. A fourth most important item in the program is the school meal. Many children who are entitled to the free schooling provided by the modern state are unable to profit because of their poor state of health resulting from under or malnutrition. Numerous studies have shown that well-balanced school meals improve the health, growth, and learning power of the pupils. Students of population have suggested tentatively that school meals provided at public expense to every pupil would be a proper first item in a population policy adapted to the declining fertility of Western civilization. In combination with school gardens, the school meal may be used in teaching biology as well as in inculcating good food habits. It is a powerful means of building health into the structure of our society.

(From "The Milbank Memorial Fund," QUARTERLY, July 1917).

Bacteria and moulds, infestation and deterioration, attack and spoil practically every kind of food, causing enormous losses every year. Ripe grain, though live, is dormant. The germ continues to respire slowly, and on long continued storage, the proteins become partly denatured causing loss of food value. Preventing this loss is one of the most important problems in our modern economy. It can be done only by using correct methods and continued care.

Food grains form the bulk of our intake for sustenance of life, energy, strength and stamina. Yet, how few people in our country realise the importance of their proper scientific inspection for their conservation. Huge quantities could be saved from deterioration and infestation if those who stock them knew the nature of the various grains, exercised proper vigilance and took timely action as soon as they found signs of deterioration or infestation, concentrating more on the turnover rather than on hoarding. More often than not, hoarding has in the long run proved a bad economic proposition and what is gained in price (if at all) is lost in a quantity gone bad by deterioration.

More and more employment of scientific mehods of assessing quality, on the basis of standard specifications, with a regulated system of "Off" and "On" allowances determined according to quality is the aim which all progressive authorities and dealers handling grains should achieve. Thus not only proper and equitable evaluation would be ensured resulting in fair price for the produced and proper value for his money for the consumer, but a practical inducement would be provided for a continuous effort towards improvement in the quality of the agricultural produce marketed in the country.

(Extract from "Nutrition" No. 32).

LAW AND PEOPLE'S HEALTH

REPORT OF COMMITTEE ON TORT LIABILITY

by

City Attorney WILLIAM EWART of Pontiac, Michigan, Chairman

City Attorney SAMUEL S. DUBIN of Gary, Indiana, Vice-Chairman

Assistant City Solicitor PAUL REVERE O. CONNELL of Worcester, Massachusetts, Secretary

Members : City Attorney Marvin E. Boisseau of University City, Missouri ; City Solicitor William J. Bannan of Waltham, Massachusetts.

THE LIABILITY OF CITIES FOR INJURIES IN TORT.

From a study of recent selected cases it is apparent that the courts are holding cities to a strict accountability in matters of tort liability. In view of this tendency ways and means of defending such cases must be resorted to by the attorney representing such municipality. One of the best defenses and one which is usally available is to bring out facts showing the plaintiff guilty of contributory negligence as a matter of law. The framing of this defense requires some planning, judgment, and an understanding of the law principles applicable.

Many of the accidents for which cities are brought into court are due to the carelessness and absolute disregard of safety measures on the part of people making such claims. When these facts are properly presented to the court in most cases a directed verdict in favour of the city results. A considerable amount of time should be spent in preparing a case on the question, " Was the plaintiff guilty of contributory negligence ?" and all facts on this point should be carefully investigated and checked for the defense attorney.

A plaintiff testifying in court against a municipality always attempts to relate the high degree of care exercised and the measures taken to avoid the injury. Many times such persons will overdo their statements and will, on their own testimony, show that they were guilty of negligence as a matter of law. For instance, on a sidewalk case the plaintiff will always insist that he knew the location of the defect and had it in mind at the time of the accident. And further, that he was exercising high degree of care trying to avoid it.

In a recent case, that of *Johnson* v. *City of Pontiac*, 276 Michigan, 103, the Supreme Court of Michigan clarified the law on this important subject. The court stated that contributory negligence is not imputable to one who fails to look for a danger when, under the circumtances, no reason to apprehend such danger exists. *Lawrence* v. *Bartling & Dull Co.*, 255 Michigan 580.

Normal adult persons must exercise their faculties for their own protection in order to avoid injury, *Evans* v. *Orttenburger*, 242 Michigan 57, and must make such reasonable use of their sight, hearing and intelligence to discover dangerous situations, which may be presented. *Rice* v. *Goodspeed Real Estate Co.*, 254, Michigan 49.

In the *Johnson* case above cited Plaintiff had testified as follows :

> " It was so rough so I didn't care to walk on it.....and that is the reason I did no't take any chances to step over it, because I didn't know just where I could step, there was snow there and ice in between .....I turned around like this and Mrs. Newton she stood there .....and I say ' Don't let us walk on it, it is too dangerous, let us cross over, and she stood right there. I could n't cross this way because I could n't push Mrs. Newton out of the way..... and I had to cross over in this direction..... I saw her start out here, it was clear, what I thought was clear, and that ridge was right here and I thought that was clear, but my heel caught and I couldn't get over and it tripped me and it turned me right over and I wrenched my knee and I went right down on that leg and it broke my leg ".

Plaintiff also knew that she must avoid the defective area and in attempting to do so misjudged the distance at which she should have begun her detour. The court also stated that there was nothing in the record except the proximity of the tree and her companion to indicate that she was prevented from walking around the dangerous spot. The record also disclosed that the defect did not extend the entire width of the sidewalk and the women could, if they desired, have passed in a single file.

The court stated the five elements that must be present in such cases before a plaintiff can be held negligent as a matter of law to be as follows : (1) Claimant must have knowledge of the defect ; (2) Must see it at the time of the injury ; (3) Must have its condition in mind ; (4) And attention must not be distracted by any other cause ; (5) And the accident must have happened in daylight. When these five factors are found, the plaintiff can be charged with negligence as a matter of law and the attorney representing the municipality can insist upon a directed verdict. By a careful preparation many of the factors above mentioned can be made available for presentation to the court. In the *Johnson* case the plaintiff, in attempting to bring out facts favourable to her cause over-stated some of the points with the result that she proved by her own testimony and the witness who corroborated her that she was guilty of negligence as a matter of law. The experience in this case is submitted for whatever it may be worth in future cases, with the hope that it may be of value in the future.

One interesting case along this line is that of *Magennis et al* v. *City of Pittsburgh*, 42 Atl. (2d) 449. This case held that where pedestrians, who, instead of walking on sidewalk when its use had become available continued to walk in dimly lighted alley after darkness had become so great that it was impossible for them to see surface of alley, and who chose alley for travel when there were readily available well-lighted and much-travelled thoroughfares with adequate facilities for pedestrian travel, the predestrians were contributorily negligent as a matter of law, precluding recovery from the city for injuries sustained in falling in a hole in alley. This case is somewhat of an exception to the rule that prevails in Michigan and may be of assistance in relieving cities of obligations for this type of accident occurring after dark.

Another interesting case is that of *Dickenson* v. *Cheyenne Country*, 18 N. W. (2d) 559, where in

an action to recover damages from county for injuries sustained when automobile ran into a ditch, where plaintiff failed to slacken speed as he drove downhill on a dark, foggy winter morning toward a dead end intersection for which he was watching, and failed to see a large post on opposite side of intersecting highway, although it could be seen 400 feet away by aid of car lights, held that plaintiff was guilty of contributory negligence as a matter of law.

An interesting sidelight on the question under discussion is the case of *Neyrey* v. *Maillet*, 21 So. (2d) 158, wherein the Supreme Court of Louisiana held that where a muddy ditch prevented chruchgoers from walking on the sidewalk and it was their practice to walk in the street, plaintiff, who in stepping into the street between defendant's parked car and car behind it, and being struck when defendant began backing his car, held entitled to recover and jay-walking ordinance of the City of New Orleans did not prohibit pedestrian from using street so as to make her guilty of negligence as a matter of law. The violation of jay-walking ordinances raised the question of whether or not the person so violating can be charged with contributory negligence as a matter of law. This case holds that no person can be held to be guilty of negligence as a matter of law for violating a jay-walking ordinance.

In the case of *Basel* v. *City of Pittsburgh*, 29 Atl. (2d) 582, the Pennysylvania court held that in an action to recover for decedent's wrongful death, the decedent motorist's own negligence was proximate cause of death where evidence showed motorist was aware of pile of dirt which city negligently permitted to exist in street at sharp curve near embankment, and had determined grade at a speed too great to permit adequate control of automobile, striking the pile of dirt and causing the death.

In the case of *Tully* v. *Demir*, 30 Atl. (2d) 877, the court refused to hold the plaintiff guilty of contributory negligence under the following facts : Plaintiff was walking on the sidewalk back of another pedestrian, who suddenly stepped aside, walking into an open trap door in the sidewalk. Plaintiff had no warning of the existence of the trap door and fell into the same and suffered serious injuries. Under these facts the court held that the plaintiff did not have an opportunity to prevent the accident in view of the sudden change of direction of the pedestrian ahead of him.

The foregoing cases should be of assistance to the attorney defending a municipality whenever there is an opportunity to charge the plaintiff with contributory negligence as a matter of law. One of the first attempts should be to collect facts which would make such defense available to the city attorney, as this procedure affords a comparatively simple method of disposing of the case. It is recognized that not in all cases can this defense be raised, but the point should be made that it should never be overlooked and attempts made to gather the necessary facts which might be used as the basis of the defense of contriburtoy negligence as a matter of law.

It would be advisable for the attorney representing the municipality to check thoroughly the law in his state pertaining to the subject of contributory negligence as a matter of law. From the foregoing cases it is apparent that in the various states different rules are followed. The attorney who is equipped with this information is in much better position to defend the municipality he represents. Most of the cases follow the same rule laid down in the Michigan case cited above.

SELECTED TORT CASES INVOLVING MUNICIPALITIES

In view of present day trends and the sympathies expressed by courts and juries for persons sustaining injuries at the hands of municipalities, it can be stated that cities should exercise greater care in protecting the public from dangerous conditions resulting in accidents. Some of the following cases should be of interest to the members of the *Institute* :

Sidewalks—Sewer Manhole Covers—Notice.

Where plaintiff was injured when a sewer gave way and there was nothing obviously indicating danger of the cover giving way, held that as a matter of law the evidence that the cover tilted when stepped on was not sufficient to go to the jury on the question of implied notice to the city. *Siger* v. *City* of Pittsburgh, 39 A. (2d) 296.

Sidewalks—Injury to Pedestrian—Contractor's Failure to Put Lights on Barricade.

City is entitled to judgment on its cross-complaint against contractor in pedestrian's action against city where proximate cause of injury to pedestrian falling on sidewalk was contractor's negligent failure to put lights on barricade on the sidewalk. *Lobello* v. *City of* New York, 51 N. Y. S. 7.

Automobiles—Injury Due to Tree Falling on—Duty of City to Keep Streets Safe.

Where Plaintiff was injured and her automobile damaged when a tree between the sidewalk and the club line fell on the automobile as alleged result of decay of roots, held that travellers on the streets have a right to assume the streets are safe or travel and no duty is imposed on them to keep vigilant watch for such defects as trees growing between the sidewalks and curb lines. City of Birmingham v. Coe, 20 So. (2d) 110.

Streets—Pot Torches in—Children.

Where infant plaintiff brought action for injuries sustained when burned by flaming oil from a pot torch in the public street, held that the judgment of the trial court dismissing the complaint for failure to prove defendant's negligence and plaintiff's freedom from contributory negligence, be affirmed. Steeves v. City of Rochester, 56 N. E. (2d) 735.

Barber Sign—Injury to Pedestrian in Colliding with—Liability of City.

In action against city for injuries sustained by pedestrian who collided with a barber sign which projected over the sidewalk, held that if it is established that the sign is not within the permissive terms of the ordinance regulating signs, the city is liable provided it could have discovered the sign, in the exercise of ordinary care, in time to cause its removal before the injury. City of San Angelo v. Sitas, 183 S.W. (2d) 417.

Planning—Safety Zone—Liability of City for Error in Judgment.

Where city engaged in planning and construction of a safety zone through its governmental authorities, held that city was engaged in a 'governmental function' and could not be held liable for any error in judgment in such planning. *Beall* v. *City of Atlanta, et al.*, 34 S.E. (2d) 918.

Trees—Injury Due to Falling Limb—Negligence of City.

In action against city for death of child caused by falling of rotten limb from tree growing between sidewalk and curb, held that although city had assumed duty of making safe overhanging trees along its sidewalks, city was not engaged in a " governmental function " and that question of notice of defect to city was for jury. *City of Montgomery* v. *Quinn*, 19 So. (2d) 529.

Sidewalks—Iron Sleeve Protruding Above—Injury to Pedestrian.

City is not liable for injuries to pedestrian who stumbled over an iron sleeve left protruding above the sidewalk after removal of the stanchion bearing notice of reservation of place for parking purposes, as this was mere non-feasance in the performance of a governmental function. *Fratello v. City of* Newark, 38 Atl. (2d.) 695.

Sidewalks—Paint on Abutting owner Knowledge of City.

Where owner of premises painted abutting sidewalk making it very slippery when wet, and plaintiff was injured when she slipped on the sidewalk, held that the owner and city were both liable, the owner for having without authority created a dangerous condition on a public sidewalk and the city, knowing through its officers the dangerous condition, for not remedying the situation. Osborn v. City of Nashville, 185 S.W. (2d) 510.

Sewage—Water Inlet Too Small—Negligence of City.

City was not liable for judgment on the part of authorities in locating or planning a general system of drainage sewers for the city where gist of action was negligence and not nuisance and the acts of negligence alleged in the petition were that the inlet which guided the water into the sewage system was too small, as this was merely alleging an error in planning the general sewage system of the city. Johnston v. City of Atlanta, 31 S.E. (2d) 417.

The foregoing cases should be of interest as they represent unusual situations confronting municipalities. Several of the cases have indicated new and novel defenses and ways of avoiding liability for injuries.

TORT LIABILITY OF CITIES

Discussion.

Mr. William A Ewart, (City Attorney of Pontiac, Michigan): I really could choose as a topic the subject: "One way to Avoid Liability for Injuries in Tort". I think that should be of interest to municipal attorneys, because you have all had the experience of being confronted with the so-called chiseler, the person who seeks to exact money from the municipality one way or another and who will stop at nothing to gain that money.

As the great Mayor LaGuardia said to-day, some of the things that have been going on in New York require greater vigilance on the part of city attorneys and all public officials.

The point I want to discuss is the defense of contributory negligence as a matter of law. In other words, many plaintiffs, when they come into court, will overstate their case. They will build it up and paint a pretty picture and tell how they knew about the condition. If you have a sidewalk case, they will say they knew about the defect and knew about it for nine years. "Did you have it in mind at the time of the accident?" "Yes, I knew it was there. I tried to walk over it and could see it". "At the time you stepped into it?" And they will answer, "Yes". Whenever those factors are present and whenever there is a way of leading the plaintiff by the hand and bringing out those facts, I think that will be of great assistance in doing away with these fraudulent claims.

To do that you have to determine what the rule of law is in your state on that subject and you must prepare, the facts carefully to try to get out those factors in order to make a person guilty of contributory negligence as a matter of law, because when you get them into that particular trench, you will have gained your case by a directed verdict.

In *Johnson* v. *City of Pontiac*, the only defense there was the degree of negligence as a matter of law. The court in that case codified the law on the subject and said that to charge a plaintiff with negligence as a matter of law, five elements must be present in the case, and that was a sidewalk case.

The first element is that the claimant must have knowledge of the defect that they are seeking to recover for their injuries. Second, they must have it in mind at the time of the injury. Three, they must see it at the time of the injury. Four, their attention must not be distracted by any other cause. And five, the Michigan court follows the rule that all these accidents must occur in the daytime if you are going to charge a plaintiff with negligence as a matter of law.

In the report that the Committee on Tort Liability prepared, we have shown several other cases from other states involving this question of contributory negligence and they are more liberal than Michigan. The Pennsylania case holds the plaintiff guilty of negligence as a matter of law when they walked down the alley and were injured in the night time which our Michigan courts couldn't do. That case is *Magennis et al* v. *City of Pittsburgh* and you will find it on page three of the report. I feel that the attorney representing the municipality can use that defense and attempt to make use of that defense with good results.

In our report the Johnson case is discussed and some of the testimony recited and you can see by reading that report how the plaintiff overdid it and in her own testimony convicted herself of being guilty of negligence as a matter of law. The court granted a directed verdict for the municipality, which otherwise would have been a disastrous case as the lady was an emotional actress and was on the way to obtaining a sizeable amount of money.

Col. William H. Emerson (Corporation Counsel, Rochester, N. Y.): This plan is in a nebulous state and subject to the passage by our local body. But in connection with the municipal liability for torts, I am now working on a local law to provide in substance for an examination before trial of all tort claimants. We have such a provision in our charter, but that has been limited to payments on contracts. That may be very helpful in quickly placing the claimant on record and I can find no objection to it legally.

Judge Ray L. Chesebro (City Attorney, Los Angeles, California): Mr. *Van Liew*, I would like to ask the gentlemen here whether or not they have ever been successful in urging the theory of contributory negligence in these public liability cases. Our experience is to the contrary. In California the jury has to pass on the question and they always resolve it in favour of the plaintiff and against the city. The doctrine of contributory negligence has been wholly worthless in our experience.

President *Van Liew*: I can give you something on that. About the 22nd of September we argued a street defect case—not on the sidewalk but in the street. A young chap was very seriously injured, a handsome fellow. We had a jury of twelve and as my colleague said as we tried the case, "If this jury ever gets this case we lose. They look now as if they want to take this little fellow on their knees and coddle him". But we raised the question of contributory negligence and we got a directed verdict. The Supreme Court sustained it and said he was guilty of contributory negligence as a matter of law. That is the case of *Humphrey* v. *City of Des Moines* and it has just been decided by the Supreme Court, about a month and a half ago.

We got away with that and we also got away with one on a side walk case, as a matter of law.

Does anybody else have anything to add on this subject of contributory negligence? A "directed verdict case" we call it in Iowa.

Mr. Charles B. Forsyth (Rochester N.Y.): The defense is seldom available as far as juries are concerned. It is available to city attorneys when it is accompanied by one additional thing, when it is employed in a close case with special request to the jury to find certain facts—special question. Then that special question comes up for review. I have in mind a case tried where woman was walking in front of a bus and an emergency car came around from the other side and struck her and crippled her. The question was whether the siren was sounded. The jury found that the siren was sounded until the time of the accident and she was bound to hear it even if she didn't hear it.

Judge Chesebro: The difficulty is to get the court to give the special interrogatories.

(*Extract from "Municipalities and the Law in Action", 1946 Edition, edited by Charles S. Rhyne, and published by National Institute of Municipal Law Officers, Washington 6, D.C.*)

THE VIRILITY OF MUNICIPALITIES.

While the rule of law is the strength of free people, yet the sinews of any system of free government must be nourished by the infusion of public funds supplied by its citizens through taxation. The centers of population by their multiplicity of activities create the power plants which propel the life-blood of the state and the Nation.

As many speakers have stated in our previous conventions, government must be judged ultimately by the standard of living of the people, because it is they, in America, who govern and who govern themselves. Our institutions are developed around the rights of citizens and their responsibilities to their fellowmen. Our liberty is restrained by law which a free people has imposed upon themselves in order to promote and preserve a well ordered society, but orderly administration should not be to the detriment of any lower level of government. While our freedom revolves around the rights of citizens it should not cease when citizens become a part of the community. As a Federal official once commented:

The virility of municipalities must be strengthened and those of us who play an important part in shaping their policies must have the courage not only to assert the principles but to vigorously apply them in our attacks upon our people's problems.

(F.T. VAN LIEW.)

"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!

PATRIK GEDDES IN INDIA

Edited by—Jacqueline Tyrwhitt.

Introduction by—Lewis Numford.

Preface by—H. V. Lanchester.

Publishers—Lund Humphries, London.

Pages—101. Size—7½"×4½".

Price—Rs. 10.

The book contains extracts from the numerous writings of Professor Patrik Geddes on Indian Towns and Cities in order to convey the principles for which he stood.

2. These extracts form the crux of Professor Geddes' Philosophy of life and the manner in which he applied it in practice for the improvement of cities.

3. Professor Geddes was far in advance of his times. His thoughts had two sides to it—one, systematic and rigorous, based upon the cartography of life, mind and society, and the other, corelationship in space, time and function. He was a global thinker in practice and one cannot appreciate his regionalism unless one also appreciates his internationalism and his universalism.

4. The present selection emphasizes Geddes thought as a teacher—his insight, his gift for swift penetrating observation and the wisdom which he brought to bear on each fresh situation as it presented itself.

5. Professor Geddes has given to the world the applications of sociology in the domain of Town Planning. The methods which he applied from time to time—and which are given in this book—could be copied with advantage by our Town Planners. His methods applied conservative surgery rather than sweeping amputation which our so called Town Planners do not hesitate to adopt. It is the best method from every aspect—"the aesthetic, and the homely, the moral and the religious, the civic and the historic." It is even the most politic method for it treats the population with consideration,

6. Geddes believed that real wealth could only be created in life-efficient environment, and the extracts given in this book are a penetrating commentary upon the application of his principles to the problems he was called upon to solve in contrast with the abyssmal ignorance of many a present day Town Planner.

7. Following Karl Marx as he did, Geddes may be regarded as a symbol of the modern age for he anticipated the modern generation's reactions against totalitarism. His thoughts on political decentralisation, on civic responsibility and voluntary co-operation and on present developments are implied in these extracts from Indian Reports and sound a refreshing note to-day when, in our enthusiasm for advancement, we seem to be attempting to re-create life in our city regions in a manner hardly befitting our heritage.

M. B. CHABLANI,
Chairman,
Madras City Improvement Trust.

GUIDING THE ADOLESCENT

Publishers.—Federal Security Agency, Social Security Administration, U. S. Children's Bureau.

Pages.—83. Size 9″×6″.

'GUIDING THE ADOLESCENT' is a pamphlet planned for the purpose of providing the basis of the education and management of our growing children. The Frendians may with proved justice, claim that adult life is merely the unrolling of the impulses of infancy. But if the environmental influences are assumed to be of no account, we might as well close down our educational institutions.

Properly managed, education has gained its place as a beneficient human effort, directed towards the betterment of the human being as an individual and as a member of the community. For such a system of education, it is essential that we understand the very raw material that consists of the not easily comprehensible human personality—made perhaps more complex by infantile thwartings and inhibitions. By an understanding of the *modus operandi* of the adolescent mind, we can avoid missing the last chance of moulding the mind of the citizen to be.

Many of the regrettable chapters in our national life may be easily traced to the thwartings and suppressions of our leaders, caused in childhood and later in the mal-handling of them as adolescents. It is perhaps, too true that as a nation we have not turned our minds to the cultivation of the hygiene of temperament. We shall therefore do well to understand our growing children. This is more necessary now for, to-day, we are a free nation and can shape ourselves into a great nation. The pamphlet 'Guiding the Adolescent,' helps us to understand and guide the adolescent without guiding too much.

MAHARANA'S COLLEGE,' A. B. MALKANI,
UDAIPUR, MEWAR. *Professor of Chemistry.*

CYCLISTS YOUNG and OLD

FOR YOUR BENEFIT

by
A CYCLING ENTHUSIAST

The story of the child whose photos appear in this column is briefly as under:

An old family friend who was extremely fond of this child and her sister was anxious to take them round on a joy evening ride on bicycle. One girl was carried in the cross-bar of the cycle, while the other was carried in the carrier in the rear. The girl seated in the rear, by instinct, supported her legs, while the cycle was moving and moving fast too. Automatically, she put her leg between the spokes of the rear wheel. The cycle was suddenly brought to a dead stop. The rider on turning back found to his dismay that the shin bone of the girl had been caught between the spokes of the rear wheel. The result was the girl, apart from suffering the agony of the pain, had to be put in plaster for over three months. This incidence which occurred in Nagpur should show how dangerous it is to carry children on bicycles—a sight which we often see in our streets.

The National Safety Council of America has printed a beautiful little pamphlet giving instructions to the cyclists. We extract hereunder the safe rider code which they have laid down for the benefit of Cyclists:

1. Obey all traffic signs and rules:

Obey all the official signs, signals and other traffic rules. They are for your protection and the protection of all other persons. As a bicycle rider, you have the responsibility to obey

them, just as you expect the automobile driver to obey them.

2. Always signal before making turns :

Use arm signals to indicate your intention to slow down, stop or turn. Ride close to the left side of the road. Turn right-hand corners close to left curb. If you intend to turn right across traffic, make sure the way is safe. Make a wide turn.

3. Walk across heavy traffic :

Look carefully for cross-traffic at every intersection before riding on. If busy intersections have no traffic signal lights, get off your bicycle and walk across. Be courteous to all pedestrians.

4. Ride single file—don't weave about :

Ride single file—don't wobble zig-zag or weave about. This is dangerous because automobile drivers cannot know what you mean to do. Don't pass vehicles when other traffic is close behind you—wait until it has gone by.

5. Watch carefully at railroad crossings :

Approach all railroad crossings and road intersections slowly, so that you can stop quickly, if necessary. Don't edge in between standing vehicles— stay behind them. Make sure that the way is clear before riding on.

6. Keep out of car tracks and ruts :

Do not ride on street car tracks or in ruts. You are likely to take a "spill" when you try to get out. Cross car tracks at right angles. Use caution on all slippery surfaces.

7. Never "stunt" or race in traffic :

"Stunting" and racing have no place on modern streets and highways. Ride at a moderate pace and always ride with both your hands on the handle bars. Avoid riding long distances on very hot days and immediately after meals.

8. Avoid all "hitching"—it's dangerous :

Never "hitch" to a moving vehicle of any kind. "Hitching" is so dangerous that it causes the death or serious injury of many bicycle riders every year. There is always danger of your being knocked off, crushed or thrown into the path of another vehicle.

9. Never carry passengers or drag children :

Never carry passengers. This most important rule should never be broken, no matter how many times you are asked to give children or other persons a ride. And never drag children behind you on roller skates, or in a small wagon or other vehicle.

10. Carry parcels in racks or carriers :

Carry parcels in a proper rack or carrier ; or tie them to the handle bars or the bicycle frame where they cannot interfere with your movements. Never attempt to carry objects in your hands while riding.

11. Use extra caution on all sidewalks :

Many communities prohibit riding on the sidewalk. If riding on the walk is permitted, use great care to guard the safety of pedestrians. Be especially careful of children. Ride off the walk or dismount, if necessary, to avoid pedestrians.

12. Get off the roadway to make repairs :

If you want to talk with friends, make repairs or adjustments, get off the roadway. Always dismount at the extreme (left) hand side of the roadway. Return and re-mount only when the way is entirely clear.

13. Wear light-coloured clothing at night

Wear light-coloured clothing at night. Motorists can see you better. Have a suitable light on the front of your bicycle, on the rear a tail-light, or reflector. Make sure lights are burning, and that reflector is clean and bright.

Somewhat on the lines on which the automobile association has issued instructions for motorists, so also it would seem advisable to issue a small pamphlet the foregoing advice to all cyclists. It is best done by the licensing authority at the time the cycle licence is renewed.

Push cycles form the only and economic method of conveyance to the poor. Even the well-to-do resort to cycling as a pleasure. With the difficulty of getting petrol, even those who own cars, traverse small distances on bicycles. It would therefore be to the interests of the trade that dealers in bicycles should get an instruction book neatly printed with illustrations for the guidance of the cyclists. Such a step would also minimise street accidents.

The Police Department will, no doubt, co-operate with the licensing authorities or dealers in bicycles who are willing to produce an instruction book of the kind suggested, by perfecting the instructions set out above and possibly providing photographs to illustrate the instructions.

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 people.

—*(Ed. P. H.)*

NOVEL WAY OF INOCULATION

To get the whole population inoculated against plague and thus to stamp out the epidemic spreading in Shahapur town (near Belgaum) the Shahapur Municipality has enforced a very interesting and novel but effective remedy of making compulsory for every citizen to produce inoculation certificate along with his or her ration card at the time for the drawing of weekly ration.

* * *

(*Page* 19—*Vol.* 1, *No.* 21, *November* 1, 1945—*of the SPEAKERS' DIGEST of the Government of India.*)

THE PREPARATION AND NATURE OF TOWN'S REFUSE—SEWAGE SLUDGE COMPOSTS

—*BOULD, C.*

Surveyor. (*December* 14, 1945, *pp.* 775—7).

Experiments, made at Reading University, on the preparation of composts from town's refuse and liquid sewage sludge are described. It has been estimated that if all the available sewage sludge on Great Britain were composted with all the vegetable matter and with some rags and paper from the refuse, it should theoretically be possible to produce between 3 and 4 million tons of mature compost annually.

In the experience at Reading a weighed amount (about 1 ton) of pulverized refuse was placed

in a cell 5 ft., square and 4'-6" deep and the surface of the refuse was formed into a lagoon. A measured volume of liquid sludge was run into the lagoon and some refuse was spread over the surface of the sludge. After 3 to 4 days, when the surplus water from the sludge had been absorbed, the cell was emptied and the contents were mixed and replaced.

Experiments on methods of aeration showed that aeration through channels in the base is satisfactory when the depth of compost is not more than 4 ft. 6 in. The heat generated during decomposition is sufficient to draw air through the beds.

Addition of nitrogen as ammonium sulphate caused a rise in temperature of 3° to 4° C. in aerated composts compared with the controls, but had no effect on the temperature of unaerated composts; it had no significant effect on the rate of decomposition. Addition of phospate produced a slight increase in the rate of decomposition, but the increase was not sufficient to warrant the expense of adding phospate.

The amounts of organic matter and of nitrogen lost were least if the period of aeration was limited to two weeks and if the compost was then stored under anaerobic conditions. If sufficient sludge was added to the refuse to bring the content of moisture in the mixture up to 68 per cent. the temperature did not rise above 55° C. and the compost was "sticky". When the initial content of moisture was 50 or 60 per cent., temperatures reached 76° C. three days after mixing.

It is concluded that composts are mature and may be applied to land without immobilizing the nitrogen in the soil if the "corrected" carbon nitrogen ratio is less than 20, if the nitrogen expressed as a percentage of the loss on ignition is greater than 3.0 per cent., if nitrates are liberated when the compost is mixed with the soil under optimum conditions of moisture and temperature, and if carbondioxide is evolved when the compost is mixed with cellulose under given conditions. Only 10 to 20 per cent., of the total nitrogen in the compost is available as a plant nutrient.

Suggestions are given for the design of a commercial plant for the preparation of compost from sludge and refuse.

N. H. JOHNSON.

WAR ON MALARIA

To the villager the breaking of the monsoons, apart from all the good things it brings with it, also means the beginning of malaria. He calls it seasonal fever. For him there is no escape from it. It appears to be quite as inevitable as the season which brings it. At least one million men, women and children die of malaria every year. Another million die of diseases to which they have been predisposed by attacks of malaria. They do not know what the fever is, how it is caused, and how it can be cured and prevented. They do have some of their own local remedies, but these are based merely on superstition, and whatever their value, if any, is mainly psychological. The patient may feel a little cheerful after having eaten a leaf prescribed by the village barber or fakir but it will not cure him. Malaria is too persistent to be driven away so easily. And the elimination of malaria is essential to the building of better and happier villages.

Malaria is by far the most formidable of India's health problems, and is the greatest obstacle to the development of the natural resources of the country. About one hundred million people suffer from it every year and this means dislocation of commerce, industry and agriculture. The financial loss inflicted on individuals and their families exceeds one hundred crores per annum.

HOW IT IS CAUSED

The fever is the sequel to a bite by a species of mosquitoes known as Anopheles. In the rainy season mosquitoes breed in stagnant water, uncovered drains and thick foliage. After a person has been bitten by a germ-carrying mosquito there is an incubation period of 7—12 days and then the attack of malaria comes on.

TREATMENT OF MALARIA

Quinine is the specific remedy for malaria. Substitutes such as Mepacrine and Atebrin are also used. Men and women in the villages should be told that unless they take quinine or a substitute for malaria they can have no hope of being cured. Even if the nearest dispensary is some miles away from the village they must go there to fetch it and take it as prescribed by the doctor.

HOW TO PREVENT MALARIA

The ignorance of men and women in villages contributes to the heavy incidence of the disease. The main points to be emphasised are :—

1. General cleanliness of the village—
   (*a*) During the rainy season, water should not be allowed to stand in pools and open drains. Thick shrubs should not be grown near the house. Stagnant water and heavy foliage are ideal breeding places for mosquitoes.
   (*b*) The house must be clean and airy so that mosquitoes do not collect in dark corners. Refuse should not be dumped in a heap at the back of the house but burnt at a distance.
   (*c*) Cowdung should be thrown into pits and covered and not kept outside the cattle sheds.

2. Malaria carriers can be detected by an enlarged spleen. Such cases should undergo regular treatment by taking plasmo-quinine as prescribed by the doctor.

3. Citronella oil rubbed on the body keeps mosquitoes away. Those who can afford to do so should buy mosquito nets.

4. The important fact is that good health is essential to resist disease. Strong and healthy bodies do not become the victims of disease germs.

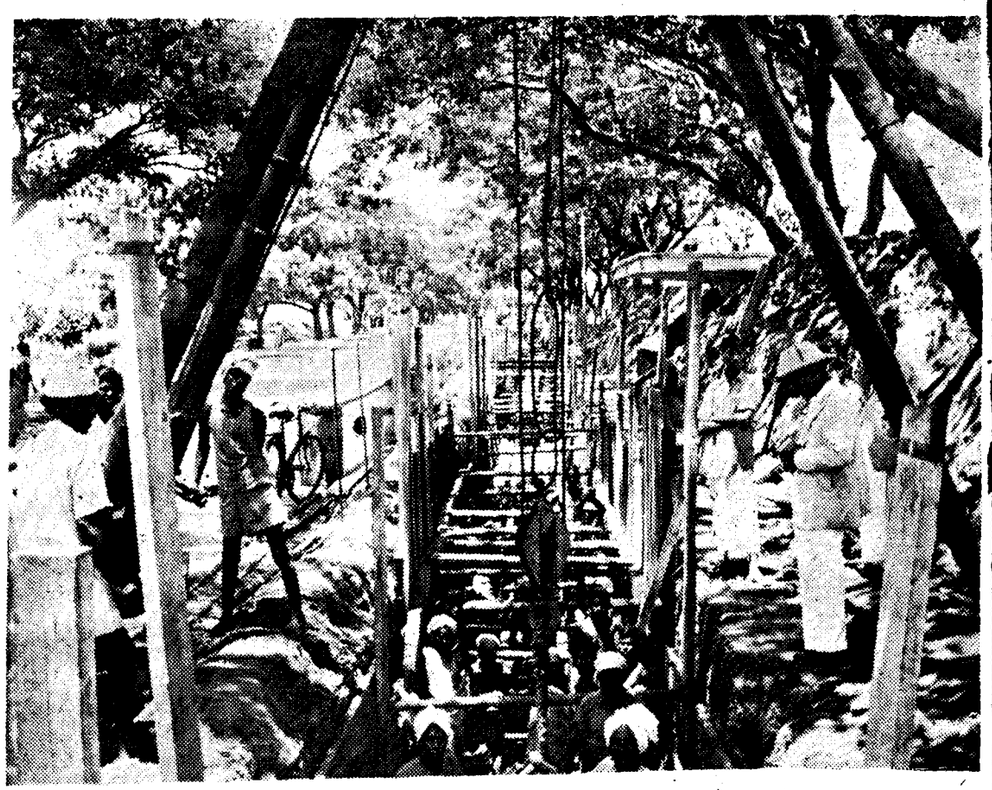
(*From "Speakers" Digest—Vol. I, No. 24—December, 15, 1945—Pages 21, 22 and 23.*)

WHAT IS A SOCIAL MEDICINE?

Grundy, Fred [M.D., (State Medicine) Leeds, M.R.C.S., L.R.C.P., D.P.H., ETC.]. *A Hand-book of Social Medicine.* Written especially for Mid-wives, but also suitable for Nurses, Health Visitors, Social Workers, Members of Local Authorities, and as an Introduction for Medical Students.

"Social Medicine" has been in the ascendant of recent years, but most people would find it difficult to draw a distinction between it and preventive medicine. Dr. Grundy expresses it as follows :—

"The division is one of convenience and broadly speaking rests on this, that whereas preventive medicine is mainly concerned with immediate causes of clinical disease, social medicine studies remoter causes of disorder and impaired vigour. It studies mainly those factors in the physical, industrial, and family environment which influence the incidence and course of diseases or the well-being of large numbers,"



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