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CHILDREN WORK WITH IDEAS

By David H. Russell

I was THINKING, "Alice said very politely," which is the best way out of this wood?"

Once again elementary teachers have a dilemman. In the 1960's we all can have considerable sympathy for Alice and also for the teacher who cried. Just once I'd like to face a question which has only one side! But the problem of instruction for children's mental development has at least two main sides, and we are torn between current pressures for making education intellectually tough and our desire for well rounded experiences for all boys and girls.

All of us, parents and teachers alike, agree on the aim that we want our children to "learn to think clearly." We want them to know the facts, understand important concepts, and use these in solving problems, criticizing shady proposals and creating originals. Perhaps some parents and teachers make the mistake of believing that "learning to think" is learning one unitary skill but there is general agreement that the aims of education must include ability to work with idea, to achieve understandings, and sometimes to function at quite abstract levels.

The teacher's dilemma occurs, then, not in acceptance of the worth of activities for developing clear thinking, but in the how, when and how much. If we give a great deal of time and energy to such facts as arithmetic combinations, basal reading vocabulary or lives of people important in our country's history, are we neglecting other desirable developments such as growth in social skills, ability to solve a group problems, or understanding of values contained in such words as liberty and justice? If we accept that "social adjustment" is not bad word, certain newspapers editorials and admirals to the contrary, then we cannot see the school as concerned exclusively with children's mental development. Perhaps the time has come to wage a new battle for curricula that stimulate children's all-round development. Especially must we wage this at the elementary school level.

The problem of teacher and of this issue of Childhood Education is, therefore, not that of exclusive emphasis on factual drill or tough problems. It is one of combining the best types of challenge to mental activities with the all-round development of

children. The problem is to have children develop into well-rounded people who are alert to new ideas, ready to tackle tough problems, sensitive to difference between the shoddy and the beautiful, and willing to true out ideas by themselves or in the group. Desirable intellectual development is part of a total, harmonious development.

Fortunately we have the material to work with. Although the London Punch is best known as a magazine of humour, one of its serious articles recently described as follows:

Very small children, like adults, can be volatile stolid, imaginative, moody, secretive, charming, unattractive, irresistible, talkative, inarticulate, practice stubborn, pliant, aggressive, bouncy, lethargic and anything else you like to name. Just like adults, there are some you want as close friends and confidants, some with whom it is only going to be possible to maintain a politely barbed truce.

The complexity of the child's thinking is illustrated in Kenneth Wann's article on the fours and fives (September 1960 Childhood Education). Even the very young have the capacity to work with a wide range of ideas.

If he accepts the fact that the youngest child in school has had many experiences on which to build and is motivated by curiosity and enterprise, some planning along different lines of mental activity is in order. Although psychologists have only begun to explore the aspects of mental life, there is considerable agreement on these points. The materials of thinking are multitudinous: the processes of thinking are probably very few. Children may know or have hundreds or thousands of percepts, memories and concepts: but they use them in only four or five different ways. The simplest of these is probably associative thinking, putting two or more things together as in a printed symbol and the word it stands for. More complex is what one psychologist calls convergent thinking, a series of associations or other experiences gradually building up concepts or depth of understanding of important ideas. Another type of thinking may be in problem-solving with its characteristic trial and error

identification, data gathering, hypothesizing and testing. Such testing comes close to a related activity sometimes called critical thinking. And finally there is the production of new and fresh objects and ideas often labelled creative thinking. The fact that research can identify only these four or five main types of thinking is of enormous importance to all teachers. Thinking activities must be varied in the typical classroom, but this variation exists largely in the materials in the wide range of ideas or the content of the modern curriculum. In aiming to develop better thinking the

teacher can conceptualize a child's growth in the relatively simple four or five categories.

The aim of thinking are not complicated, but classroom possibilities are vast. Research studies suggest that even kindergarten children are capable of all of these five main types of thinking; and parents may expect their child in the primary grades to be doing each of these in the language arts, in quantitative understandings, in social interaction and in the ever-widening impacts of science on our lives.

ROAD TRANSPORT IN INDIA

Why It Needs Encouragement In Third Plan

By S. C. Nair

A REVOLUTIONARY change in the pattern of transport system has taken place during the postwar period in all the advanced countries of the world. Before the war, railways dominated transport. Today, they are being left in the background and road transport is having its ascendancy.

Before the war road transport used to act only as a feeder for railways and sea-borne traffic. Today, it has become a mode of transport on its own. The only important exception to this change among the industrial countries of the world is unfortunately India, where railways still dominate the scene.

The extent to which the change in the transport system is taking place can be realised from a few facts. In the United Kingdom, before the war, railways carried 65 per cent. of inland transport, while road transport handled no more than 35 per cent.

Today, the share of road transport is 67 per cent. The British Ministry of Transport in a report on sample survey carried out in 1958 said, "Whatever unit of measure is used road transport is now the major means of inland carriage of goods".

In Australia, where railways dominated inland transport, it is the road that today carries 52 per cent of the total traffic, while the railways carry the remaining 48 per cent. And even this will go on shrinking in the years to come. In Italy, which is economically on the same level as India, the share of road transport is 69 per cent while railways barely cover 31 per cent of traffic.

MOST PROSPEROUS

The most prosperous road transport system is in the United States where motor vehicles now carry not only long distance freight but also long distance passenger traffic, running into journeys of a thousand miles and over each. Every seventh worker in the

United States is employed in the road transport industry which has become the second largest industry in the country.

As against this, in India the railways still dominate the scene. They carry nearly 75 per cent. of freight, while transport handles no more than 25 per cent. What is more significant is that even this 25 per cent freight traffic is confined mostly to feeder traffic, meant to feed the main railway systems, with the result that road transport, specially on long distances, is negligible today.

This is a situation that deserves the most serious attention of all those who desire the well-being and prosperity of India.

It is not just an unplanned action that the transport system has undergone a big change in all civilised countries. There are fundamental reasons for it. Road transport is far quicker than the railways. It renders door to door service. It reduces loss and damage in transport to a negligible quantity.

These advantages are specially valuable in the case of perishable goods and consumer goods where the manufacturer is anxious to reach his customer and dispose of his goods as fast as possible. He does not want his capital to be locked up in goods stored in godowns.

ROAD TO PROSPERITY

Quick turn-over is morden road to industrial prosperity, and that is why in the United Kingdom and America consumer industries are resorting to road transport. In fact in these countries railway now cater to transport of agricultural produce, mineral ores, and coal. Even in the transport of cement, motor industry has devised trucks which practically eliminate cost of loading and unloading and are able to beat railways in field.

The fundamental fact is that while road transport can reach every village and hamlet throughout the country, the railway system can reach but a hundredth of them. Ninety-nine per cent of villages in any country remain untouched by the railways.

The railways further suffer from the disadvantage that they are inflexible, while motor vehicles can be shifted from one place to another according to pressing requirements of different regions.

As a result of these India suffers from a large number of transport bottlenecks which inflict an incalculable loss on this poor country.

Only a few months ago, the Bombay Gas Company announced shortage of coal supply and told its customers that it might be forced to curtail its gas supply to the city. About the same it was reported from that all electric power supply for industrial use had been suspended because of an acute shortage of coal.

From Gadawara in Hoshangabad came the news that the grain merchants of that area had been forced to close down the local grain market, which is one of the leading grain markets in Madhya Pradesh, because over a lakh of bags of grain and pulses had accumulated at the railway sidings and could not be transported, no wagons being available for the purpose.

Recently, a report came from Madurai that the districts of Madurai, Ramnathpuram and Tinnevely, which are dependant for their daily requirements of grain and pulses on North Indian States, were reduced to conditions bordering on famine because of want of adequate rolling stock with the railways, who were unable to transport pulses from the north to the south India.

WORSENING SITUATION

The situation will worsen in future. In an expanding economy, where outturn of agricultural and industrial products goes on increasing from year to year, it will be impossible to handle the expanded output unless road transport comes to occupy the same pre-eminent position in the transport system as in other advanced countries.

We cannot have a highly developed industrial economy tugged on to the by-gone railway age. The railway age is now fast becoming an age of the past, the same as the bullock-cart age.

How closely the prosperity of a country is related to the development of road transport can be appreciated by studying the conditions prevailing in America which is the most prosperous country in the

The average per capita income of the citizen of the United States amounts to Rs. 10,900 per year as compared with Rs. 294 in India. Automotive transport has contributed most fundamentally to bring about this prosperity. The automobile industry, as we have stated above, engages one seventh of the working population of the country.

The indirect employment is colossal. In the United States, 17 per cent of all steel produced in the country, 48 per cent of all malleable iron, 63 per cent of all copper, 42½ per cent of all lead, 30½ per cent of all zinc, 20½ per cent of nickel, 60 per cent of all rubber, and 63 per cent of all upholstery is consumed in the automobile industry.

Apart from this must be mentioned that every million dollars spent on construction of highways, consume 478 tons of steel, 14,500 barrels of cement, 1,600 tons of bitumen, 598 tons of concrete pipes, 9 tons of explosives and vast quantities of timber piling, etc. How much indirect contribution road transport is making to the prosperity of United States can be realised from the single fact that during 1958, it spent 6,207 million dollars on construction of its highways.

COURAGEOUS POLICY

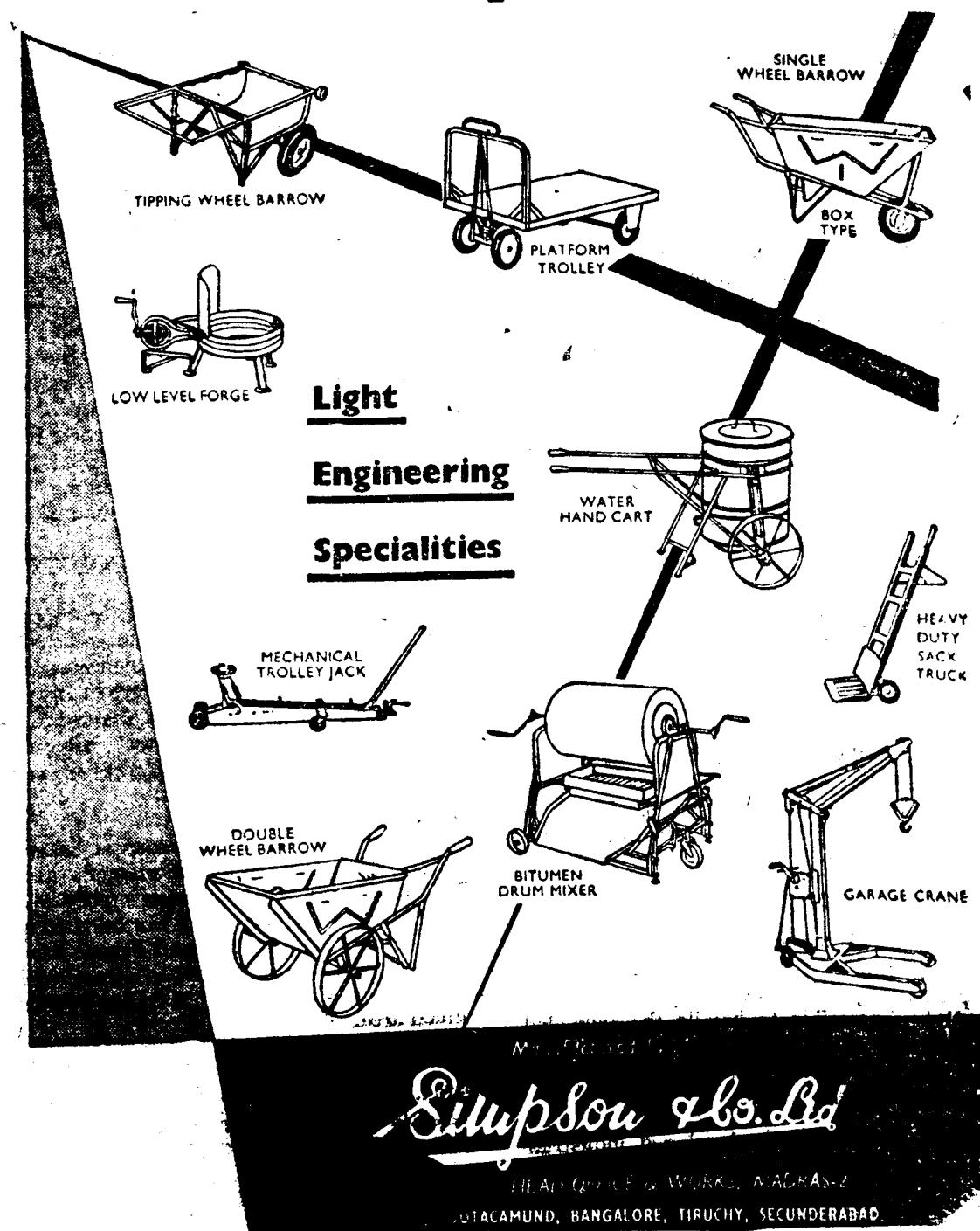
It is this type of bold and courageous policy in the matter of road construction and development of road transport that is responsible for carrying modern means of civilisation and culture to the remotest villages of the country. In fact the road system is so elaborate that there is no such thing as a remote village left in America. All villages are caught in the vortex of progress.

A prosperous road transport means adequate supply of good roads and adequate number of vehicles. In the matter of road supply we are behind practically the whole world. For hundred square miles of territory Great Britain and France have 300 miles of roads, the United States has a hundred miles territory. Even Ceylon has 38 miles of roads for that much area.

India is satisfied with only 25 miles for hundred square miles of territory, and most of these roads are unusable during monsoon. On basis of population, also we are far behind the world. For a population of one lakh, the U. S. A. has a road mileage of 1,834; France, 1,502; Great Britain, 384; Spain, 251; Iraq, 242; Ceylon, 115; Malaya, 110; India has no more than 82 of roads for a lakh of population.

The Chief Engineers of various States in India recently formulated a 20-Year Plan under which they proposed to bring our road mileage to half a mile per square mile of territory. It is not a very ambitious pro-

simpsons



DECEMBER 1961

programme. And yet even this much target does not meet with the approval of the Planning Commission which had originally given its blessing to it.

If the 20-Year Road Plan is to be implemented, it is necessary that one-fourth of it should be put through during the Third Plan. Actually, the amount allotted under the Third Plan is only 25 per cent of the total amount required to reach the target for the five out of the 20 years. Not that anyone is calling upon the Planning Commission to shoulder a burden which it cannot carry.

The fact is that road transport taxation is enough to carry-through even a more ambitious programme than is planned by the engineers. Let us look at a few concrete facts

MOTOR TAXATION

During the current year we are expected to pay Rs. 145 crores by way of motor taxation. The present allocation for road development during the Third Five-Year Plan is less than two years' revenue from this source. The revenue from road transport is being diverted from its legitimate use of road development to general expenditure.

This does not happen in other countries, and it is to be hoped that leaders of public opinion would look into this matter and urge the authorities to rescue roads and road transport industry from this grave injury.

The poverty of our road transport can be gauged by a comparative set of figures. It has been found that out of 55 countries in the world, 13 countries have only one motor vehicle per mile of road, and this list includes India. In 21 countries, they have from one to five vehicles in nine countries from five to ten and in 12 countries above ten vehicles.

If we are to make adequate use of the investment made in road construction we must put in at least five times as many vehicles on the road as we have today. The underuse of roads is a definite economic loss to the country.

Unfortunately, we have neither been importing vehicles nor manufacturing them in adequate number to meet our requirements. The Planning Commission had fixed the production of commercial vehicles during the Second Plan at 140,000. The actual production is likely to be less than 90,000. It will mean a deficit of 50,000 vehicles which is not a small number.

The pace of vehicle production during the Third Plan has to be trebled if we are to make up the present heavy leeway. Shortage of vehicles is certainly one of the recent causes of our backwardness in road transport.

BIG HANDICAP

A big handicap that has thwarted the growth of road transport in India is the heavy taxation. In no country in the world is road transport so heavily taxed as in this country. The taxation, direct and indirect, per vehicle stood at Rs. 567 in 1935, in 1950 it rose to Rs. 1,115, and in 1955 it went up to Rs. 1,906. In 1958 the taxation per vehicle amounted to Rs. 2,200.

The taxation for small types of trucks actually exceeds the freight rate by the railways. The average railway freight rate is 6 nP. per ton mile, while the tax incidence on the petrol driven trucks works to over 7 nP. How can road transport prosper in such a condition?

There are other difficulties like artificial restrictions on the growth of road transport, the limitations on the issue of licences, the distance limits, etc., etc., which have dwarfed our road transport industry. The facts are very well-known. What is now necessary is to remove these restrictions and to give the largest latitude to the growth of road transport.

Above all, we must give up our old world dependence on railways as the chief means of transport. We must modernise our outlook. We must see what the rest of the world is doing and why and apply their lessons and trends to the conditions in India. It is only then that we shall have a road transport system modern enough to carry prosperity and civilisation to the remotest parts of the country.

BRINGING UP CHILDREN

THE problem of juvenile delinquency. Let's consider a few cases: A girl is employed to take care of a child, and when the child's mother is out at the grocer's the girl disappears— along with the baby's woolies and the cute little bangles; a boy of eleven is boy of ten for purse-

snatching; a ten-year-old girl for stealing stainless steel vessels and a group of boys are apprehended for throwing stones on a passing bus.

This is a familiar pattern or shall I say an everyday occurrence that has a hundred and odd variations. Sketchy reports of them appear in

Press occasionally and few know or even care to know about what kind of boy or girl it is who has got into trouble, or where they come from. It is a complicated problem that has its roots in society, that can only be remedied by proper co-ordinated efforts by the Government and the people, by the arm of law and the limbs of society.

The basic question is who is to be blamed, for the incidence of juvenile delinquency? Parents, perhaps! Yes, because prison officials, educationists and psychologists who have studied such cases, have pointed out time and again that the children who get involved are mostly boys and girls whose parents have been unable to accept them whole-heartedly, who have been denied a good home atmosphere and who have never had the good fortune to bask in the warmth of love.

But most parents would say, "why, of course we love our children! They share everything we have, and they seem quite happy, only they seem to get into bad company."

These are not the sine quanon of a child's happy home life. It is the mental outlook that matters. Many homes are poor, crowded, but even in them, every child can feel that he is respected, wanted and loved—factors which seem to be lacking in even prosperous areas where a child may have every convenience in the material sense. Home for a child should be a place where he is loved and wanted, where he is truly a part of the family, sharing in the fun, work, planning and even worries. He should not be chastised for his mistakes in a hard way; his silly questions should not be laughed out and his new interests and new companions should not be belittled or ridiculed. He should not be considered queer and be left bereft of consideration. He should be guided, making full use of the gentle art of persuasion; by showing him instances where departure of behaviour from the normal has led to tragedy.

BE CHILD'S FRIEND

The parent has to climb down and be the child's friend. Children sometimes will tell a lie or do what they normally should not. The parent, instead of turning into an injured moralist, should understand and explain rather than punish them severely. The defects should be pointed out gently, without shaming them or hurting them. The child is helped more by being shown that his parents appreciate his successes and failures even after honest efforts.

Preach if you must but let there be a limit and such basic values as honesty, consideration and thoughtfulness are best inspired and inculcated by precepts. Acquiring such basic values is never a matter of direct teaching, but more a process of demonstra-

tion, illustrating with examples from religion, folklore and real life.

Films today serve as a model for many young people, although not all of the ideals emulated are commendable. Wise indeed is the parent or teacher who points out to the youngsters, the acceptable aspect of the films and persuades them to consider the rest as pure fiction instead of vigorously restraining them from seeing films or vociferously condemning them. The same applies to reading habits.

Religion, and spiritual values have also an important role. Religion is the vivid and colourful web in the pattern of culture, the basic material on which intricate patterns are cast, and woven. Religion is essential for imparting dignity, grace and depth to social behaviour, and as such a place in the child's education.

KEEP IN STEP

Most men and women are very good parents while their children are young. But as the children grow older they are unable to understand them. Teen-agers have their own problems. The adolescent among his friends, annoys the parents by his or her names, jokes and ideas. The parents find it too hard to hold on to their children and they find it too hard to accept their children's friends for they fear that they would be bereft of their child's affection all the sooner. This is the precipice where the youngster revolts, adamant to jump into the chasm of delinquency; more out of defiance and curiosity to experience "adventure" than out of any criminal bent of mind.

Today, children do not have suitable schools. Many schools and most homes do not furnish either educational or recreational facilities suited to children. Since several years our leaders have been trying to interest the public on the need to provide children with good recreational facilities. Despite all the parks and playgrounds that have been laid out, children play in the streets and make their contributions to accidents; they play in dirty alleys, in abandoned buildings, on dumpheaps, and add to the public health problem: they hang around corners, in bus stops and in front of cinema houses and make themselves psychological wrecks. They are on the high road to delinquency.

Bringing up children the right way that they may face tomorrow with confidence is everybody's business. Nearly everybody in the community touches the lives of children at some point. It is expected of every citizen to contribute a mite—it may be funds, or ideas or in the form of services—but most of all in unstinted co-operation work out plans to give children a happier and brighter future.

SERVING THE COMMUNITY

Why are so many people unwilling to serve on local authorities? For example, for some people the necessity of identifying oneself with a political party is distasteful, and yet in some areas it is only by doing so that it is possible to secure election. The professional man, or the shopkeeper, may quite properly prefer to keep his party allegiance to himself. Even when a potential candidate is open as to his own political leanings he may still be reluctant to commit himself to serving under party direction in regard to matters which seem to him to have no party political relevance. In many councils this may be the expression of a fear rather than a reality and the whip may be used only rarely. Nevertheless, the knowledge of what has happened in the past and what still happens in some places even now may create an almost, or perhaps quite, unconscious antipathy to the idea of serving on a local authority "at the orders of the party".

The foregoing may be a strong reason with some people, but clearly it cannot be the only one because there is no evidence at all that in areas where local government is still very largely on a non-party basis there is any overwhelming rush of independent candidates seeking election.

How far do the following influences deter the potential candidate? First, the rather debased public image of the local authority which the late Rob Wilton's Mr. Muddelcombe, J. P., the Nether Backwash District Council, and similar music hall and radio caricatures have built up in the minds of many people: an idea of the elected representative as something of a figure of fun, however well-intentioned. Is it the case that for some people this background figure cannot be altogether displaced even by meeting in the flesh the very different Alderman Smith and Councillor Brown who are precise in their speech and businesslike in their approach to local affairs? Unhappily, the standing of councils in the eye of the public is too often injured by the readiness of the local press to give its readers what they want by reporting the more sensational arguments, with ver-

batim reports of the picturesque language used by Councillor Brown to describe Alderman Smith and his ideas or his actions, rather than the more sober debates on matters of real local importance.

Secondly, is the Welfare State to blame? Are we reaching a state of society in which far too many people are content to take what is provided without considering what contributions they ought to make in providing it? In other words, are many people losing any initiative which they may have had and even any desire to exercise initiative? Again, as another possible aspect of the influences of Welfare State, do people nowadays feel that even if they were to seek membership of the local authority there would in fact be no scope for initiative because everything now is provided in such a cut and dried way? The decline in the local government sphere seems also to be paralleled by a decline in the support given to voluntary organisations, which could be part of a pattern. In our affluent society which its high material standards, are we in danger of losing the call to voluntary service—and has this been hastened by such innovations as subsistence and financial loss allowances which were intended to enable a larger number to have a part in this work.

One last suggestion (though, of course, this does not begin to exhaust the possibilities): with all our technical advances we are able to travel about the country, indeed about the world, at ever-increasing speeds. We are saving time on our journeys and yet many people—the kind of people one might wish to see on a local authority—complain that they haven't enough time to do all the things they want to do. Is this the fundamental answer to the question, namely, that nowadays most people of ability and initiative have more than enough to occupy their time without undertaking the exacting and time-consuming work involved by membership of a local authority? If this is so, what solution can there be? The survival of representative local government, as we have known it, depends on finding one.

—The Municipal Review (U.K.).

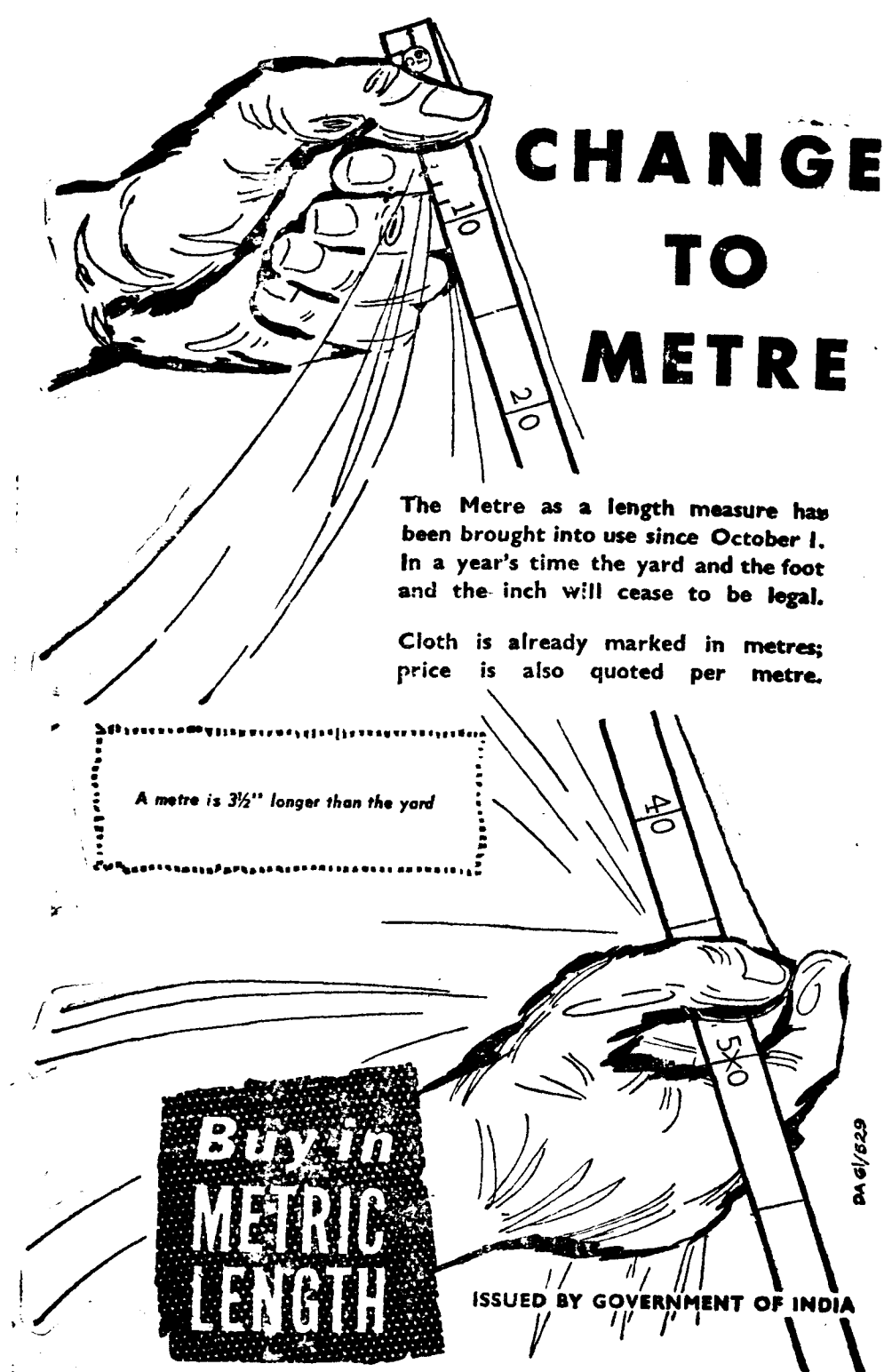
MECHANICAL BROOMS CLEAN AUSTRALIAN STREETS

It is 3.30 p.m. and "knockoff" time at the Sydney (New South Wales) City Council's Cleaning Department depot.

Among the first employees to emerge are four well-dressed young men, carrying golf bags and clubs.

They hail a taxi and direct the driver to take them to the Moore Park Golf Club, the municipal link on the city fringe.

Other men emerge from the depot, dressed, wearing fashionable sportswear and



CHANGE TO METRE

The Metre as a length measure has been brought into use since October 1. In a year's time the yard and the foot and the inch will cease to be legal.

Cloth is already marked in metres; price is also quoted per metre.

A metre is 3 1/2" longer than the yard

Buy in
METRIC
LENGTH

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MBER 1961

or neat business men type suits indistinguishable from those worn by average city business men.

Water Spraying

According to Mr. J. P. Deppe, executive superintendent of the Sydney City Council Cleansing Department, the fact that the employees may wear neat attire to work and have a shower and change in the depot at the end of the working day, is one reason why there is always a waiting list of applicants.

Very few of the employees live in the city area. Most come from the suburbs, some travelling up to 60 miles a day. They either drive to work or travel by rail or bus transport.

The Sydney City Council has 773 employees in the cleansing and garbage departments. Equipment is mostly mechanical and includes 12 mechanical garbage pick-up units, three vacuum sweepers for gutters and roads, garbage trailers and mechanical "horses" for transporting trailer units to the incinerators or garbage dumps.

There are also long-armed flushers which spray water from the roadside right up the shop front level. Twenty water-flusher wagons, each holding 1,300 gallons of water and two with a 1,500 gallons capacity, operate for seven days a week. Between their starting time at midnight and "knock-off" time at 7 a.m. each makes 26 re-fills.

Sydney has very few unsewered areas and these are in the new developments in the outer urban districts. In these cases the sewage collection is by contract, and specially devised equipment prevents any human contact with it.

By Majorie Thomson

The City Council disposes of 2,500-tons of waste a week, mostly trash from warehouses. This is either incinerated or dug-in and used as filling for reclamation purposes.

The city cleansing department goes into operation at midnight. At that hour, men with oversized brooms begin sweeping the footpaths, while machine-brush units sweep the gutters. The litter is disposed of via grid-covered disposal channels in the gutters or roadways. The road water-flushers and long-armed street flushers follow the sweepers.

During the day, a team of sweepers armed with brooms fitted with metal guards, which act as shovels and push the litter ahead, work in the city streets cleansing between parked cars in the business section. Mechanical units cannot be used during the day because of the traffic problem.

Garbage units—covered vehicles—begin to operate at 6 a. m. To or three men work with each vehicle and empty the cans into the unit. A seven-day garbage collection is carried out, with a twice daily service to ships in the port of Sydney and to restaurants in the city area.

Incinerator operators and night-workers work a five-day, 32-hour week. The other operators are employed on a 40-hour week basis.

Waiting List

The City Council employees are supplied with khaki boilersuits or bib-and-brace overalls, and the garbage collectors wear canvas and leather gloves. They may buy protective boots, steel toe-capped, at cost price. Rubber knee-boots are supplied for certain fluher work, but not for garbage carts, because they have been found to be dangerous for this type of work.

The Sydney City Councils area covers 7,161 acres, with 293 miles of streets and lanes.

"There is always a long waiting list for jobs in the cleansing department," said Mr. Deppe.

"The reason for this is that working conditions are so good and there are so many incentives in the form of superannuation three weeks' annual leave and liberal sick leave. The work is not dirty or arduous, the hours are good and there are so many ways of making extra money.

The additional money accrues to garbage collectors through the sorting and sale of empty bottles and the collecting of scrap metal and newspapers.

"We engage men today who usually have had two or three years of high school or technical school education. Most of them left school at 15 years of age, the permitted legal school-leaving age.

Mobile Rickshaws

"The majarity of the men own their own homes or are paying them off. Some have expensive homes and cars: others have children attending the university.

"I have been at golf clubs in various suburbs during the week end, where I have seen men whom I knew by sight. When they spoke to me I realised that they were from the cleansing department. By their dress and demeanour, ~~one would never pick~~ their occupation, and that gives a good indication of their social standing, I would say," said Mr. Deppe.

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A similar situation prevails in the Waverley Municipal Council in a closely settled area of Sydney. Three beaches—Bondi, Bronte and Tamarama—are in the municipality, and there are big blacks of home units and flats in the area.

The Waverley Council garbage collectors work four days a week; the fifth day is devoted to cleaning and servicing the vehicles. But the street cleansing service operates seven days a week. After the summer week-ends, when thousands of people flock to the three popular beaches, the Council machine-rakes the sand and automatically collects the beach litter.

Waverley municipality covers three-and-a-half square miles, and has 76 miles of streets and lanes, plus three beaches in the area. There are 65,000 residents.

In addition to the mechanical units the Council also employs three mobile "rickshaws" for use in streets where there are trees, parked car or other obstacles, and in the business district.

The "rickshaws" are small, square metal frames with strong hessian bags hooked inside, with an aperture for a broom and shovel. In practice, the user of the "rickshaw" broom sweeps the gutters and shovels the litter into the sack on the frame. When a sack is

filled he leaves it at a set point where it is collected, by the garbage truck later in the day. He proceeds in this way until he has filled a dozen or more sacks and has left them at prescribed points.

Essentials

The cleansing department of the Waverley Council is controlled by the engineer, while the garbage section is under the direction of the health officer. Garbage collected is essentially household refuse or refuse from shops and restaurants in the business sections.

Special "clean-up" days are set aside during the year when the Council encourages householders to dispose of their rubbish or junk, which the Council removes free of charge. This yields a haul such as old refrigerators, stoves, furniture and miscellaneous items.

"Road maintenance, garbage collection and street cleansing are three of the basic essentials for the life and maintenance of a modern city. They prevent health and physical hazards. When all or any of these essential services break down havoc follows, but they are taken so much for granted in our existence that we do not give them very much thought", says Mr. Deppe.

such world capitals as Stockholm, London and Vienna gets. The reservoirs of the Moscow Canal have become big sources of water supply. A short while ago I had occasion to make an excursion to one of them—the Uchinsk.

My car sped along a paved highway, hemmed in by thick woods. This wooded area is what is called a sanitary protection zone. Bathing and fishing are prohibited here and there is no shipping. Behind a high fence stands a pumping station, an outpost, as it were, of the Northern Waterworks. It was here I made the acquaintance of Dr. A. V. Volkova, state sanitary inspector.

"The structure before you is not just simply a pumphouse," she said. "Pumping water over is a simple task. It is a much more complicated matter to make drinking water innocuous. But there is more to it than that too. Such water has to be tasty, like spring water. Not many realize what a difficult and responsible task that is. We carry out strict sanitary control at all stages.

DECEMBER 1961

Dr. Volkova suggested that we step over to the place where the main link in the process—the chemical treatment of the water—is concentrated.

A grab crane lowers lumps of aluminium sulphate into a concrete bath. Upon dissolving, the aluminium sulphate forms flocs, which attract fine particles in the water. Before sending water on further, milk of lime and chlorine are added to it. The lime neutralizes the acid, which might later cause corrosion of pipe-lines. The chlorine kills the microorganisms present in the water and decolorizes it. The process feeding all these substances to the water is automatic.

After passing through the reaction chamber, the water enters sedimentation tanks. Here the sludge and admixtures settle to the bottom. The sedimentation tanks still do not make the water fit for drinking. It has to be thoroughly filtered after that. The filter is in the shape of a basin with a huge reinforced concrete grating fitted into the bottom. This grating is covered by a thick layer of gravel and sand through which the water seeps slowly. Mention must be made of an innovation that has recently begun to be employed at the station. At the suggestion of supervising technician U.B. Bagotsky, the upper layer of fine sand was replaced by anthracite slack. This made it possible to nearly double the efficiency of the filters. All operations and processes are controlled by a dispatcher from a central panel. The time is not far off when electronic computers will come to take his place. Besides fulfilling their basic functions, they will also select the most economical regimes of distributing water through the city.

There are people at the Northern Waterworks who keep a constant eye on the quality of the water. They are the employees of the central laboratory. Day and night, in all weather, they control the technological process, making as many as 500 analyses a shift. Even a slight deviation from the fixed standard serves as a cause to sound the alarm.

New improved instruments have come to the help of the chemists. Previously, the colourity and turbidity of the water was determined by eye. This was a long and inaccurate process. Now, a photoelectric colorimeter-turbidimeter gives the results of analyses quickly and precisely.

The laboratory staff is doing a great deal of research. Laboratory head T.A. Dmitrieva, for instance, is studying the possibility of utilizing ozone to improve the quality of the water. When chlorine is replaced by ozone to treat water (the ozone is obtained with a special apparatus), the technological water-purification process becomes much shorter and the gustatory qualities of the water are considerably improved. The problem U. I. Melnikov is engaged on is the isolation and investigation of a group of bacteria accompanying the intestinal bacillus. N.M. Avdiyevich is developing a direct method of counting bacteria, which is more effective than the one employed heretofore. The laboratory staff is working in collaboration with medical researchers.

Representatives of the Erisman Sanitary and Hygiene Research Institute and the Sysin General and Municipal Hygiene Institute are frequent guests in the laboratory.

My excursion through the Northern Waterworks was drawing to a close.

"Now you understand," Dr. Volkova said in patting, "that the less foreign matter water contains, the easier it is to make it fit for drinking. The water reaches us from the upper Volga. I would like to call upon the administration of the city of Kalinin to speed up the commissioning of the purification installations. Refuse adds to the plumber's troubles, raising the cost of purification operations and complicating them."

The personnel of the waterworks and the sanitary inspectors are doing their bit so that the Muscovites will always have ideally pure and tasty water.

THE WATER WE DRINK

A. Osipov

Picture to yourself Moscow in the middle of the last century. A fountain is playing in the middle of a dusty square. From the open reservoir around it, city dwellers are drawing water, some with pails others with jugs. The long drawn cries of water-carriers can be heard above the din of voices of the throng. They are delivering water in wooden barrels to inhabitants of the city, charging a good price for each pailful.

The years passed. The new in Moscow became the usual, became part and parcel of city life. It is hard to picture the Soviet capital without the subway, without water flowing plentifully from the taps of every home, without the pleasant swimming pools. But where is the source of this bountiful water-bearing artery? Indeed, just forty-odd years ago most of the houses in Moscow did not have running water. At that time the water was fed to the "public" fountains and few hydrants from the Moscow River. But if we kept on using only this source until now, we would "drink up" the whole Moscow River in several days. Today you know, over five hundred liters of water are supplied daily for every inhabitant of the Soviet capital. This is twice as much as every inhabitant of

SCHOOL HEALTH

The lay press recently carried a summary of the report submitted by the School Health Committee to the Union Ministry of Health. The report makes a strong but valid criticism of the present situation which pays only nominal attention to the health of school students. If the nation wants to be healthy it must ensure that children receive the right amount of atten-

tion and a beginning has to be made with the children who join school. Because of the compulsion now exercised in most states to bring boys and girls between the ages of 6 and 11 to school, any arrangement which secures them the necessary medical attention will automatically serve to improve general health. But the pity is that school children do not get the

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13

medical aid to which they are entitled even though they pay a regular fee for it. Such schools as have arrangements of some sort are seldom earnest in maintaining them. The result is that if and when children are subjected to a medical examination the work is conducted in a not perfunctory manner. A number of excellent schemes that would help to link all schools in a health service have been suggested by parties and individuals that have interested themselves in the project. But not one of them

has been accepted by the Government. The pointed notice which the School Health Committees had taken of the need for reorganisation should secure the immediate attention of State Governments. Mid-day meals should certainly be provided for school children. But if the children are not keeping well and if their systems cannot draw the maximum nutrition from the food they take, the scheme would not prove effective. Therefore the reorganisation of the school health service should come first and receive priority of attention.

A TEACHER WHO "DOES NOT TEACH"

D. Anjaneyulu

(An appreciation of J. Krishnamurti)

For nearly a month now, the cream of educated society in Madras have been gathering every Sunday and Wednesday evening in a cool shaded bower tucked away in a quiet corner of the city near Adyar. Old theosophists, retired officials, Western ladies in saree and Indian hairdo, some smart Indian women in bobbed hair and well-groomed young men with their wives, wait in eager expectancy. The distant sight of a lithe, tall figure, straight as a lance clad in a long white *jibba* and *dhoti*, taking long strides, casts a spell of deep silence—women begin to adjust their sarees and men sit erect in their seats.

The slim figure stops near a cushioned pedestal, leaves his sandals on the ground, and gently steps on to his seat. Squatting on it firmly in a sort of *padmasana*, he greets the gathering with a graceful *namaskaram*, takes the watch out of his pocket and, placing it by his side, surveys the audience intently for a minute or two through his keen heavy-lidded eyes beneath the arched brows. He begins to speak with a clear, emphatic voice—in clipped, staccato accents that have the air of Oxford about them, may be with a touch of Adyar and California combined.

Probe on Fear

There is nothing new about the words he uses—like 'time', 'thought', 'fear', 'mutation', etc.—but he does use them in a context, in a new relation, and with a new connotation. The world is full of fear—fear of armed conflict and of nuclear warfare on the international level, and fear of losing one's job, of disease and of death on the personal level. There is nothing strange in this observation either. But he proceeds to probe the cause for this.

Fear is caused by time and thought. As an example, he adds that if a man is to die the next moment (death is certain one day or other), there is no question of fear. But, if he knows he is to die the day after tomorrow, there is all the time before him to worry, grow sick and make himself miserable. Similarly, a child is not afraid of a snake or a Scorpions, of which the adult, thinking on familiar lines, is terribly scared.

Fear, says Krishnamurti, is one of factors that render human life unhappy, along with ambition and envy. What is the remedy for all this? It does not lie in knowledge—which is after all a reaction of memory—or experience, which is response to the challenge from outside.

What about prayer or meditation? He rules it out altogether, for how is real meditation possible for a mind that is petty, ambitious and restricted? And what is meditation, as it is generally understood—the repetition of set words and phrases the contemplation of certain cherished images or visions for 'the peace of the mind'? He would, rather, that the mind undergo a mutation first. Mutation, incidentally, is one of his favourite key-words. It is the operate word in his philosophy of life. It is different from change. One is total and fundamental, the other superficial and transitory, he takes care to add.

Stimulating

Krishnamurti knows, as well as any other, and he says it off and on, that his listeners are not going to change after listening to his talks. But all the same, he wants them to 'listen' to his words, not merely hear and forget. He wants 'atta'

is spontaneous, not merely 'concentration', which is achieved by effort and is restrictive in its effect. Facts have to be faced as facts, not as words or ideas, as is usually the case. Otherwise, we will remain repetitive and imitative and never become sensitive or perceptive.

To the casual listener, and the superficial observer, this might seem a sophisticated quibbling with ideas. To the serious student, however, it is more than that—it is a stimulating experience, a refreshing process. The spell cast by his unconventional eloquence is intoxication. It may sometimes approximate to intellectual anarchy. When Krishnamurti denies knowledge, experience, tradition, authority,

Government, religion and God as the guide to our lives. But he wants a radically new approach to all problems. He advocates an investigation into the mind to make it free and fresh and innocent—may be to evolve a new order through the elimination of the old.

He is a teacher who does not teach, but thinks aloud. As a dialectician he is formidable and unsparing. Not believing in tradition, he might still be viewed by others as a modern Sankara or a wandering Socrates, off the beaten track, who sets his listeners thinking on a way out of the problems of a fear-torn world. He does not offer solutions. He shocks us into a quest for them.

NEUROLOGICAL COMPLICATIONS OF DIABETES

BY

V. Balasubramaniam, M.S.

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The neurological complications of diabetes mellitus are due to the involvement, mostly of the peripheral nerves. (It must be noted that the cranial nerves are also peripheral nerves in the sense that they are peripheral with regard to the brain.) The brain and the spinal cord are not involved.

The nerves that are affected in a patient with diabetes are usually the sensory nerves. Very occasionally the motor nerves are also involved.

NOMENCLATURE

Nowadays the neurological complications of diabetes are grouped under a common head as neuropathy. They were once called 'diabetic neuritis' but in the absence of definite signs of inflammation the term 'neuritis' has been dropped and the more ambiguous term 'neuropathy' has been introduced.

PATHOGENESIS

We will now consider briefly the mechanism of involvement of these nerves. Many different mechanisms can be invoked to explain diabetic neuropathy. It has been assumed that there is a specific nutritional deficiency and this causes the neuropathy. It is quite likely that diabetes causes a conditioned deficiency of vitamin B and other B-complex factors. This is a state of affairs similar to alcoholic 'neuritis.' It is well-known that in diabetes the metabolism of the entire system as a whole and the metabolism of carbohydrates in particular is disorganised. The carbohydrate metabolism (by which we mean the release

of energy from break-down of carbohydrate) has been recently worked out. This is called the Krebb's cycle. Due to various factors this cycle gets disorganised. This results in an accumulation of certain intermediate products which are toxic and they are ultimately responsible for the neuropathy. Further the association of a vascular factor cannot be denied. In diabetes there is a greater incidence of atherosclerosis. It has been found that there is an accumulation (or deposition) of more polysaccharides in the walls of the capillaries. Depending on the situation of the capillaries the various complications of diabetes ensue. When this occurs in the kidneys we get the syndrome called Kimmel Steil-Wilson syndrome. A similar state of affairs is thought to be taking place in the small capillaries (called vasa nervorum) of the nerves. This process has been called angio-pathica diabetica vasorum nervorum. The involvement of these blood vessels results in ischaemia of the nerves and this is thought to be responsible for the neurological complications.

SITE OF LESION

It was once thought that the sensory nerve was involved 'some where' in its course. But now recent work seems to indicate that the first lesion occurs in the end-plate and from here spreads centripetally. Later the entire nerve is affected. In the earlier cases there is degeneration and fragmentation of the myelin sheath. Later the axon cylinders are destroyed and this process spreads proximally till the entire nerve is destroyed. Minimal changes occur in the earlier stage;

since the entire process takes a long time, the pathology is to a certain extent reversible. As indicated earlier it is mostly the sensory nerves that are involved. Occasionally the motor nerves are involved.

EFFECTS OF THE LESION

The results of these changes are felt in many ways. Because of the involvement of the end-plate the earlier manifestations are subjective. These are called paraesthesias and consist of numbness and tingling; with further spread of the disease this leads to definite and demonstrable sensory loss (of the so-called 'glove and stocking' type). The classical signs of peripheral nerve lesion have now appeared. In still advanced cases because of the absence of protective sensation, various types of trophic lesions appear. (It is difficult to exclude a co-existing atherosclerosis of medium sized vessels of the limbs). In late cases the joints of hand and feet undergo destructive lesions as seen in tabes.

VARIETIES OF LESIONS

These changes are usually symmetrical and spread in an equal manner. Occasionally there may be involvement of motor nerves. This is usually asymmetrical. It is manifested by weakness, pain and wasting of muscles.

The neurological complications of diabetes seldom appear in a well treated case. However in diabetics who are not being treated successfully (for various reasons) these complications set in during the treatment. Sometimes these complications may be the first set of symptoms which bring the patient to the doctor. A careful examination will then disclose the presence of diabetes. Occasionally they may precede the onset of diabetes. It is this variant (where the neurological 'complications' antedate the appearance of diabetes) that casts doubts on the 'diabetic' etiology of neuropathy.

DIAGNOSIS

The patient with diabetes mellitus complains of a subjective feeling of numbness and tingling of both hands and feet more in the feet. He also may mention that he feels a sensation of 'walking on cotton wool'. These must immediately suggest peripheral neuropathy. Pain may or may not be a prominent symptom. At times, however, it may be quite severe, shooting down the entire length of the lower limbs (more pronounced in legs). In such cases it is very difficult to exclude an aggravating factor in the shape of arteriosclerosis.

Examination of these patients in the early stages may not reveal much. However in well established cases it is found that the sense of touch is not quite upto the mark. Wasting of muscles may be present.

The patient may be ataxic with eyes closed. The reflexes will be lost—thus confirming the existence of a lower motor neurone lesion. There may be perforating ulcers. Actually the presence of perforating ulcer must straightaway suggest diabetic neuropathy, in our country. (Another equally important cause of perforating ulcer, in our country, is leprosy). The limbs are usually cold partly due to the neuropathy and partly due to atherosclerosis. These changes are more advanced in lower limbs than in upper limbs.

The parasthesia of neuropathy with loss of reflexes and ataxia might raise the possibility of tabes dorsalis. But the absence of pupillary changes, the absence of 'lightning pains of tabes and the C.S.F. changes will help. There are no C.S.F. changes characteristic of diabetic neuropathy.

Occasionally the distribution is not symmetrical. In these cases there is involvement of motor nerves (or roots). The prominent symptoms are pain, weakness and wasting of muscles. The reflexes may not disappear early in spite of the wasting as contrasted with the classical neuropathy. This syndrome has been called diabetic amyotrophy.

Some times the involvement of sensory nerves might extend to a considerable extent centrally resulting in vesical atony.

Very few laboratory investigations are needed except only for the detection of diabetes.

Diabetic neuropathy can also involve the cranial nerves. In this the oculomotor and the facial are the ones that are affected. The involvement of the oculomotor may be partial (common) or total (uncommon). This results in ptosis and weakness of the muscles of the eye.

Retrolbulbar neuritis can also occur in diabetics and is best considered as an ophthalmological problem.

TREATMENT

This can be discussed under two heads: (a) preventive and (b) curative.

PREVENTIVE TREATMENT

This consists in an adequate treatment of diabetes. Perhaps the value of this may be doubted by such of those who question the 'diabetic aetiology' of the neuropathy. In most diabetics there is a certain amount of sub-clinical or clinical deficiency of vitamin B₁. So a suitable supplement of vitamin B₁ (oral or parenteral) will help considerably.

CURATIVE

In the earlier stages the lesions of neuropathy are reversible. In an established case the addition of Vitamin B₁ and in many cases Vitamin B₁₂ will give relief. The role of Vitamin B₁₂ is difficult to explain. That it helps in the alleviation of the parasthesia is an established fact. Perhaps it is necessary in the protein synthesis on which depends the integrity of the axon. In cases where there is 'burning-feet' the addition of B-complex (particularly pantothenic acid) helps. It must be remembered that in diabetes we are dealing with a metabolic disorder which might produce multiple vitamin deficiencies.

Since the vasa neuronum are involved vasodilators have been tried. Their usefulness may be questioned. Whether they act by virtue of their action on the blood vessels of the limb or the blood

vessels of the nerve is a moot point. Plenty of drugs with vasodilator effects are available. Some have a pancreatic vasodilator effect, some have ganglionic blocking effect.

Massage helps in these cases mainly by improving the vasculature. To facilitate blood flow (and thus to reduce the parasthesiae) complicated apparatuses have been devised. Apart from massage, regular physiotherapy to the limbs with special emphasis on movements of the various small joints will also help.

A careful hygiene of the feet is very necessary. Due to the combined effect of a peripheral neuropathy and an impoverished circulation any small injury might set up a cellulitis, a perforating ulcer or a gangrenous process.

—THE LICENTIATE

TOWARDS THE MAKING OF A TOWN

(Contributed)

THE making of a town is not a day's job, neither is it the result of the efforts of a single individual. The public very rarely seems to appreciate this, specially in India, and to the general mass, the very statement that every man has a part to do in the building of his town, seems ridiculous. When there is the Municipal authority and the Town Department, for whose maintenance the people pay, they cannot think of anything else they can do. The idea is, of course, not without truth, for paying the rents and taxes is to contribute partly towards the improvement of the town, but this is obviously no healthy reason why a man should not do anything more, even if it lies within his power, only because he had done the routine part of his job. Moreover, there is another more important side of this question, which people overlook very often. They do not seem to realise that every bit of voluntary work they do for their town never goes unpaid for accumulative effects of these habitual extra helps invariably effect a reduction in the rent. I shall just outline a few directions in which the citizens may turn useful, only if they have the mind.

Town-planning and improvement schemes are the outcome of very careful consideration of various important points. The authorities have got to examine the existing circumstances and the requirements of the people, and the fact that the future of a town depends on them shows the depth of responsibility they have to shoulder. To turn out a successful scheme they have to study all sides of the problem and

in lining out the scheme, have got to keep the health, convenience, economy, comfort and the pleasure of the people of the town foremost in their minds. So it is only a duty of the conscientious public to try for the reinforcement of all these vital and fundamental principles upon which the growth of the town mainly depends. To be useful in this sacred mission lies completely in the power of every individual, if he has the will.

A man can be useful in any way he likes and can afford to. The rich has got his purse, but the poor his spirit of work and service to stand by him. All individuals may not be in a financial position to help the constructive programmes of the town substantially but it lies in the power of everybody to try to maintain the improved standard of his town which has been attained by the ceaseless efforts of the authorities. To take the most vital point in town construction schemes as an example, we may consider the sanitary problem of the town. Most elaborate programmes are adopted by the departments responsible for this work to ensure the health and sanitation of the town and every man should do his best to see that cleanliness is maintained under all circumstances, a thing very rare in Indian towns. The habit is yet to be formed and once it is done rest will automatically follow. The following hints, if followed carefully, will do a lot towards the sanitation of the town:—

1. All dirt and sweepings to be dumped in dust-bins. Instead of being thrown in roadside.

2. Torn papers and pamphlets to be put in waste paper or litter cans placed by the roadside.

3. Not to throw dirty water and washings to the streets. Drains are supposed to take them.

4. Water closets and privies are not meant for things like pillow cases, broken bottles, candle sticks, etc. These things if put in dustbins will save the Municipal authorities a lot of troubles.

5. People are supposed to go inside the public urinals to ease themselves and not to use the outside walls of the urinals for the purpose.

The above points will remind the readers of various other shameful acts people in general do, but which they ought not to. This is a hint towards the duty of every individual to keep up the sanitation of the town and co-operation of the public is absolutely necessary for this purpose. It is only a matter of forming the habit.

Paying rents and taxes regularly and willingly shows a spirit of co-operation on the part of the rate payers. By paying the rents fixed by the authorities the people help them to carry out their schemes for the betterment and maintenance of the healthy standard of the town they live in. Sometimes when topics are raised about the rates being exorbitant, they should always think of what they are enjoying in return. The authorities concerned consist of highly technically specialised men who always fix the rents according to the requirements of the town and they expect a full co-operation from the public. A very unhealthy mentality shows itself very often when the assessment of the cost of some improvements in the town is proposed to be made on localised area of the town. The theory of this action lies in the belief of payment in accordance with prospective benefit but interested people seldom appreciate the point. It is only fair for the people who derive the maximum benefit out of a town improvement work to bear the major portion of the cost. To come to a concrete example, suppose that a monument of outstanding historical or political interest is built in a certain part of a town. After the building of the monument, the properties surrounding it increase even upto three or four times their original values. The owners of these properties make this tremendous profit practically out of nothing and without the slightest efforts on their parts. Now if they grumble sharing the major portion of the cost of the monument between themselves and insist on the whole town bearing this expense, it is a unholly advantage they are asking for. Of course it is not from all improvements that only local areas benefit most and it is completely justifiable when the cost of these works are met from the general fund. The same may be said of the above type of case is

to impress on people, most benefitted town improvement works, the fact that by paying more than the others towards the cost of those works, they are not doing any charity work out of mercy, but only paying an insignificant part of the huge benefit they are making in return. This is only a part of the duty expected from them.

The biggest and the most beneficial contribution of the public towards town improvement is perhaps private houses and housing estates constructed according to the specifications of the town planning authorities. Of all Municipal jobs in town construction schemes, housing is the only enterprise of individual interest. This, therefore, requires a fuller treatment and I shall try to show one or two ways how this can be carried on with prospective success.

Owners of private houses have got an important mission to fulfill in this direction. In some towns the authorities or the housing estate owners subdivide the land in plots systematically and then either sell the plots or give them on lease. This system leads to the formation of well planned housing estates and if every individual house-owner only cares to abide by the housing regulations which, by the way, he is legally bound to, and pays proper attention to the sanitary fittings, ventilation and frontage of the house, the combined effect will be a paradise of well planned houses with nice roads and paths separating each row. This is an invaluable contribution towards the improvement of the town. Here also, mention can be made of a peculiar tendency of some people to try to cheat the Municipal authorities, sometimes even without any apparent self-interest. As an example, an engineer once submitted the plans and sections of his proposed house to the Municipality and he has boasted for more than once for being able to deceive the Municipality people by a trick in his drawing. There was a balcony overhanging on a lane which was legally not allowed. The owner drew a section of the house purposely avoiding any section through the balcony and the Municipality people, through oversight sanctioned the plan. The gentleman, had enough land and could have easily shifted the house to avoid the balcony from coming over the lane but perhaps it is the satisfaction of being able to deceive the authorities, that counts.

Capitalists can do a lot towards town improvement if they desire to. It is not any act of charity, but aiming at, but is a real investment of their money in town-planning and improvement schemes which provide for the growth of future housing schemes which the authorities cannot take up immediately. The land for the future houses can be bought by any capitalist and he can make his profit in the scheme in the area subject to the approval of the Municipal authorities. The

own fine decent small houses of their own but cannot afford to build them. If the owner of the estate, a capitalist of a company, sell the houses to people on instalment system, with a certain down and a regular monthly payment for a certain period of time, there will be many people going forward to buy houses. It is a bargain for both parties. Houses can also be given on rent for a long period and for houses in a growing town is ever increasing. These types of private housing schemes are being taken up now, in India, by many capitalists and limited companies and is a healthy sign towards the improvement of public mentality.

A better system of making private housing estates is by co-partnership housing schemes. In a scheme of this type a company is to be started by several men who themselves want to possess houses of their own but cannot afford to pay the whole required amount at once. A housing estate area is taken on lease by the company, the houses planned and the partners decide upon inviting share capitals on a guaranteed interest varying from 4 to 6 per cent. The partners themselves buy shares (upto a limited amount) and share capitals and loan stocks are issued. The interest on the shares are paid from the regular rents paid by the partners until the houses are built and rented. The rents are adjusted to be such as to be able to pay the interest on the raised capital and make whatever possible profit which is shared by the partners. The greater the profits the more secure is the regular payment of the interest on the Capital. The advantages of this system are that the houses being the property of the partners, utmost care is taken of them to reduce the repair charges, thus helping to increase the profit. They are also very

keen about getting tenants for houses for the same reason. The greatest advantage is that the owner of the house can leave the place and house without incurring any loss for he can always get the cost back or if he cares to continue the investment he is sure to get the interest regularly. The Municipalities or the local authorities may also do their share to back these growing concerns. In England some co-partnership housing estates have been favoured with the construction of sewers and water mains by the County Councils, a definite and substantial help to the companies. Municipal authorities can generally be persuaded to render such helps, for the private housing estates and considerably to the improvements of the town.

It is in the hands of the public to help the growth of a town in the above lines. Of course, help in any other allied direction will be equally useful and congenial. And then, the last word for the obliging citizens, they can always remember that there is the clause 8 of the Housing Act of 1909 relating to the housing of the working classes provided for the making of town planning schemes—

"A local authority may accept a donation of land or money or other property for any of the purposes of the Housing Acts, and it should not be necessary to enroll any assurance with respect to any such property under the Mortmain and Charitable Uses Act, 1888."

They are at liberty to make any donation and can be sure of their donations being accepted without any fuss on the part of the party receiving the help.

Administration of Civic Affairs & role of Women

Mr. M. Anantasayanam Ayyangar, speaker, Loka Sabha called upon the Municipal corporators to acquaint themselves thoroughly in the due discharge of their civic duties and responsibilities and eschew

Mr. Ayyangar, who was replying to the civic duties presented by the Mayor and corporators asked the Municipal Board and local bodies to conduct their affairs on parliamentary principles "and make the administration pure."

He said that "there must not be chaos and the business of corporations should be conducted in orderly manner, otherwise we are not fit for running a self-government."

He also referred to the role of women in public life and said "let the corporations be run by women. They are good in domestic affairs and let all seats be occupied by women."