

PEOPLE'S HEALTH

EDITOR
A. V. RAMAN



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MAY 1950

NO. 8

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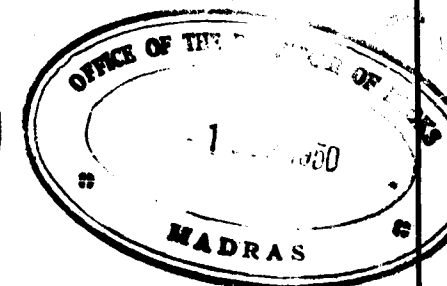
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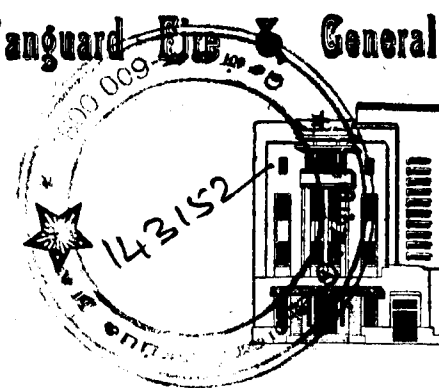
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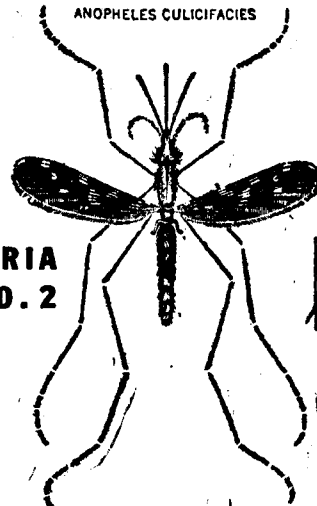
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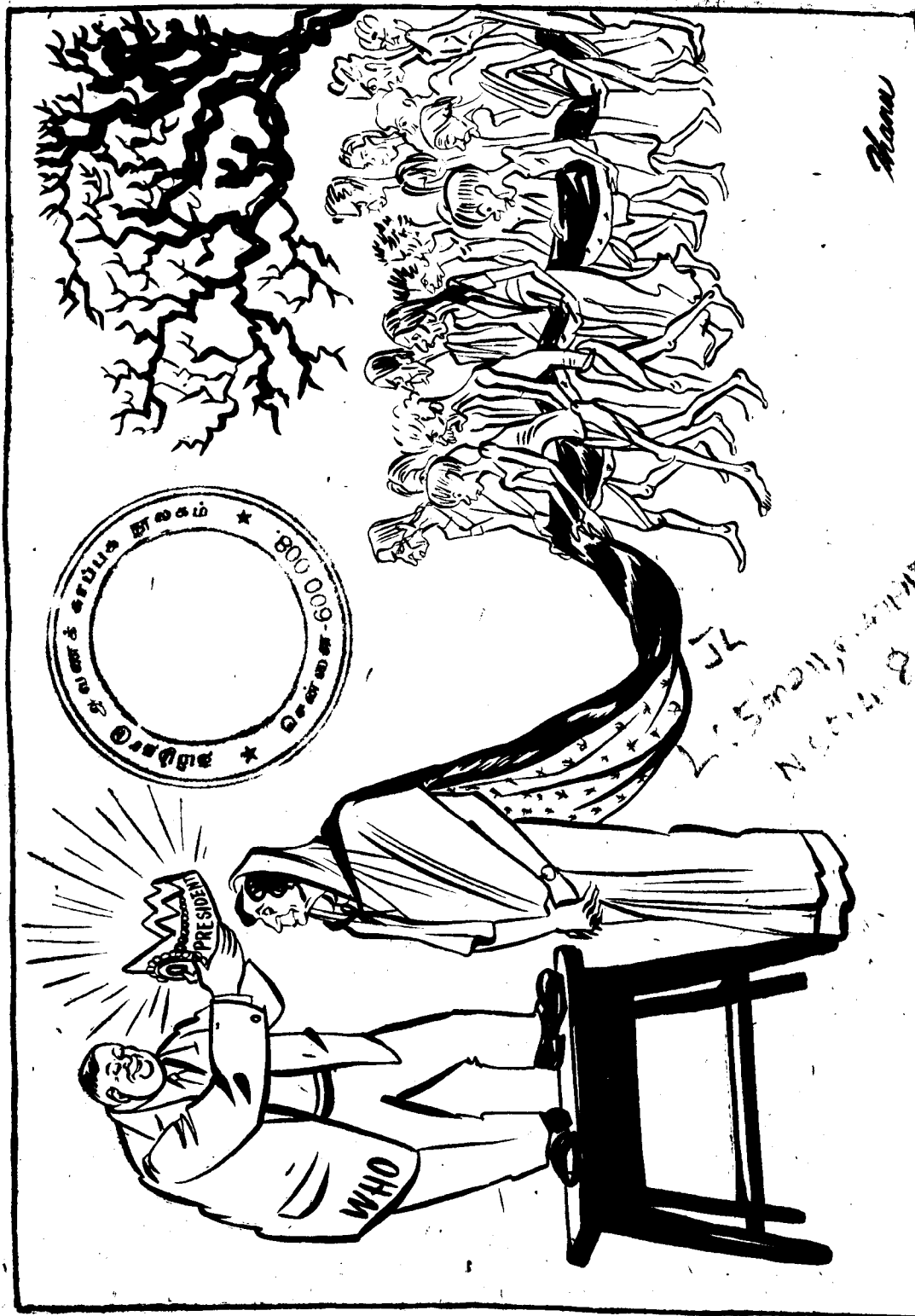
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THUS, HAS INDIA BEEN HONOURED!



VOL. IV No. 8

MAY, 1950

ISSUED MONTHLY

EDITORIAL . . .

An European housing authority once said to me that the eradication of slums and their replacement by decent housing is justified at almost any cost because such efforts tend to "strengthen the FIBRE OF THE NATION".

—William H. SCHUCHARDT.

OUR SLUM PROBLEM

YOU may live in the fashionable quarter of town but there is a dark slum somewhere on your property"—said Austin O'Malley. This statement needs a slight modification here. We have slums not on, but all round our properties. Slums, like and with the poor, will always remain with us, if the present process of tackling the problem is to be continued. As Robert Louis Stevenson has put it with reference to his own country, we are still very much at the "Commencement of the beginning" in respect to dealing with slums.

Housing the housed is very different and less urgent than housing the homeless pavement dwellers. From lavender-perfumed society dames to grave, authority-conscious Corpora-

tion officials, everyone has something to air about "the slum problem". These slip in a cliché about "raising the standard of living". This, they helpfully add, would solve our slum problem with the greatest of ease. They would not, however, tarry to answer you, if you ask them, "What do you mean by raising the standard of living"? No, they would be having another important engagement.

Raising Living Standards

To raise one's standard of living is not as simple as raising one's hat to another, though the phrase has, by constant and irrelevant use, come to mean something very easy. In a land like India, the improvement of living conditions should, necessarily, take

precedence over everything else. The piffle about living standards has no meaning, when our living conditions remain as they are. When we say living conditions, we are not as vague as those who talk about standards of living, because conditions necessary to a clean and healthy life—a good house, pure water, efficient drainage, and recreational facilities—are things with which even Macaulay's ignorant schoolboy would be familiar. The poor man of India would feel grateful if his conditions of living are forthwith improved; vocal sympathy and promises about raising living standards take him nowhere and probably just make him angry.

Idle Talk

India has her leaders. These men and women, had they ever been to school, should have "talkative", written in the remarks column of their monthly reports. They are undoubtedly, disproportionately garrulous and they are, most of them, on the verge of anecdote. When these plead with "the masses" to "work more, and thereby produce more" the result is not without its humorous side. The spectacle of decrepit statesmen huskily asseverating the importance of work, and the esurient people looking on, and listening is tragical and comical at once. More work without better health is as impossible as making bread without flour, and this, the fogies should understand, from personal experience. But they don't. Younger men, who worked on our Constitu-

tion, should have been more alive to this fact. But they weren't and we have a Constitution that has not, in its fundamental rights, the right to live and work in a healthy environment!

Financial Aid

What prompted us to comment editorially on slums, was the Madras Corporation's recent discussion on the subject, and its decision to approach the Government for financial assistance to the tune of three crores, to clear the slums. The Corporation has kept its programme a secret and no one knows how exactly the three crores are going to be distributed in the attack on the slum problem. It would not be in the public interest if this help is sanctioned straightaway. We say so, not because we question either the sincerity or the competency of the Corporation. All that we ask is, that in view of the large amount of money involved, the plan of work should be first put on the table, and the opinion of leading workers in the field taken, before money is spent. The Government, were it to spend the three crores itself, without an approved plan, would be as guilty of callous neglect as the Corporation has now shown itself to be. Whether it is the Government or the Corporation that is eventually to be vested with the responsibility of liquidating slums in Madras, is not the point at issue. The plan should be made public first; that is all. It would be best for the Government to clear the slums that have

sprung up in their own land and thus lead the way. Private owners of open grounds are at present renting the land out to the homeless, to put up hovels. A land rent is levied, at about four rupees per hovel per month. This is how landlords make money while slums are allowed to grow. Private bodies who let out land in this manner should be compelled to comply with the minimal requirements of housing in respect of the dwellings reared on their lands. If they are unable to do so, they must be compelled to transfer the lands to the State. If the law is defective, in this regard, it should be amended forthwith.

Otherwise, our popular Ministers would justly expose themselves to the charge of being more interested in the profits of the rich than the welfare of the poor.

Constructive Suggestions

Some have accused us of being over critical—destructively. Each criticism of ours carries with it a constructive suggestion which is conveniently ignored by our critics. For slum-clearance, then, here are our "constructive" suggestions.

1. In estimating the costs for the abolition of slums, the first thing is (as we have said already) that a definite plan should be worked out. The plan cannot be worked behind barred doors by a single expert, however eminent he may be. The work ought to be done by a team of experts, which should include an economist, a sociologist, a public health engineer, a public

health medical man, a financier, a town planner, an auditor and a few other specialists. Of course, those for whom the dwellings are intended should not be forgotten. Their evidence is an important factor. It is only as a result of such joint effort that a workable plan can be hammered out. The attempts of any single expert are bound to prove a failure. The expensive scheme of Government of India to manufacture *pre-fabs* would have been scotched had they set up an expert committee of the kind herein suggested. Waste of money could have then been avoided.

2. As regards the design of homes of low cost for the average wage-earner, it is again a work in which all the technical talents available should be pooled and every individual given an opportunity to put forth his best. Recently, the Institute of Housing and Town Planning, New York State Division of Housing, invited all the architects to compete and the best of the designs was selected. A cash prize totalling 3,600 dollars was awarded. In attempting to abolish all slums in Vienna, when the Socialists first captured Vienna Municipality, a similar procedure was adopted with wonderful results. In regard to the design to suit our habits of living and our climatic conditions, the best architects should be invited to submit designs of low cost homes.

3. It has also been the experience elsewhere that joint action cuts down the housing costs. This was demonstrated in Vienna long ago. Recently, the discussions of mayors, architects,

engineers, planners, housers, contractors, manufacturers, educators and labour and home finance representatives met at a conference. It was sponsored by the New York State Division of Housing in cooperation with nine other agencies. A number of interesting projects in the State and elsewhere was discussed. The country's foremost experts in the field participated.

A similar endeavour in our country would go a great way to cut down housing costs. This is another aspect which deserves the attention of the authorities who had better look for guidance, in the achievement of other countries rather than in the mouths of indigenous, ignorant amateurs.

WHY THIS FARCE?

Smallpox and cholera are preventable. So they are. In Western countries they have been prevented. History records that U.S.S.R., where the conditions were even worse than those in our country today, has effectively liquidated these epidemics. How did the Russians manage it and why is it found impossible here?

Guntur (Madras State) is now passing through an extremely severe epidemic of smallpox. We are told that so many thousands have been vaccinated and so many thousands revaccinated against smallpox. And yet, one part of the Province or other is subjected to smallpox in an epidemic form of varying intensities. If vaccination does afford a sure protection, why then

does the epidemic show up its head? Surely, there must be something wrong somewhere. It is for the Minister of Health and his technical advisers to explain the reasons why the so-called preventive measures adopted by them, have not yielded results here. The Medical Public Health experts claim to know all about the epidemiology of smallpox. Their knowledge, apparently, is not of practical value or utility.

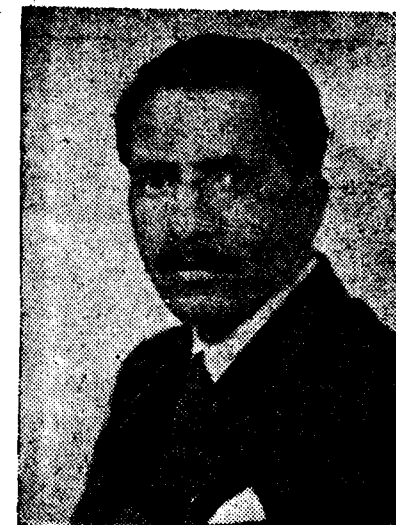
Some districts in the Madras State are now in the grip of cholera. The appropriateness of the routine measures taken to prevent an epidemic of this kind, requires a deep and thorough re-examination. Unlike in the case of smallpox, the Public Health experts do not claim to know all about cholera. Still, they pin their faith in the so-called preventive measures, following blindly a routine. They want to investigate further and further. Let them do so. But, in the meanwhile, should they not follow the methods which have been successfully adopted elsewhere? A vigorous and a firm drive in public cleansing (in the widest sense of the term) and provision of, at least *controlled water supplies*, should wipe out the existing epidemic and effectively prevent any further epidemics occurring. Knowing this and also being aware that the other measures, whatever they may be, are at best only palliatives, we ask why the Government do not concentrate exclusively on the fundamental programme which is certain to yield results,

INDUSTRIAL EMPLOYMENT OF WOMEN AND CHILDREN

by

Dr. M. N. Gupta,

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Ministry of Labour, Government of India.



NOTE.—The views expressed in the article are personal and do not represent the views of the Government.

"The State shall in particular direct its policy towards securing:

(a)

(b)

(c)

(d)

(e) that the health and strength of workers, men and women, and the tender age of children are not abused and that citizens are not forced by economic necessity to enter avocations unsuited to their age or strength;

(f) that childhood and youth are protected against exploitation and against moral and material abandonment."

(The Constitution of India—Part IV—Directive Principles of State Policy, Article 39).

2

DURING the last half century, we have been passing through a period of great struggle for rapid social and political integration. Whatever hope was to emerge from these struggles has at last been earned in the enacting and adopting of the "Constitution of India". The various articles of the Constitution give an interpretation of the development of the ideas of the last fifty years of great social, political and religious thinkers. They show what is necessary if we are to make the most of the vast powers that we now command and to make us rise to the solemn resolve that the people of India took to secure to all the citizens of this great land of Bharat, *Justice, Liberty, Equality and Fraternity*. Unless the people of this land are moved to the depths of their souls, there is little hope that they would be capable of meeting the challenge of the "Constitution" in the only spirit that will ensure their survival from extinction by

means of the very instruments that they have devoutly enacted.

I. Employment of Women

Men has, since the earliest times, tried to find the means of harnessing and developing the forces of nature so as to produce wealth in abundance and in this process invented machines, tools and other instruments. There were other people who saw in these technical inventions prospects of profitable production, and making labour more productive. The effect of this idea on the situation of workers was bound to be great.

In Great Britain, the twin revolutions in industry and agriculture were fastly destroying the prosperity of workers. During the closing decades of the eighteenth century, spinning was becoming a factory industry and leaving the cottages, thus depriving the women and children in agricultural districts, and families of handloom weavers of supplementary earnings. It also drove women and children who lived near the new factories to seek employment outside the home. It also created a demand for pauper children to be imported from neighbouring districts to fulfil local demands for child labour. The same revolution spread to weaving industry in the earlier decades of the nineteenth century with even more devastating social effects.

The industrial employment of women and children, thus begins in Great Britain in the nineteenth century.

Reasons for Employment of Women

The introduction of mechanical power showed the way to increase in production of labour, which increased the number of

industrial establishments and was swiftly turning Great Britain into the "workshop of the world."

The same machines, however, increased the demand of semi and unskilled women and child labour. This fact alone was to be the root cause of all exploitation of women and child labour. Increased industrialisation called into employment a large competing supply of women and child labour with less power of resistance or a lower standard of life. This labour force could be easily exploited by employers to achieve two purposes, firstly to beat down wages and, secondly, to exact more work out of them by extending the hours of work to inhuman length. The result was that children were worked as much as 16 hours a day and 12 hour-day for them became a recognised standard under the new system.

Home industry like spinning, weaving, sewing, knitting and lace-making was rapidly being industrialised throwing hundreds of women out of gainful employment.

In order that maximum utility could be achieved out of machines and power, more hands were needed and work was to be speeded up. This resulted in increased employment of women and children under congested and overcrowded conditions with hard work for long hours.

The decades following on the Battle of Waterloo (1815) saw swift transformation of industry to a factory basis. The wars brought out a lack of male labour and brought on increased employment of women on low wages.

The greatest evil of the first half of the nineteenth century was the horrible factory and housing conditions and the inhumanly

long working day. The working day became both long and intense. This was specially so in the case of women and children.

After the passing of Peel's Factory Act, in 1844 and the Ten Hours Act in 1847 the worst excess of overwork at the expense of the women and children in the textile factories was over.

The Factory Acts, which, up to 1867, had extended only to textiles and to a few scheduled "dangerous trades", were applied to all factory trades by the Act of that year and workshops also for the first time brought generally under regulation.

From the point of view of women workers, and within the limits of the factory system the changes in the second half of the century, on the whole, showed that working class conditions were getting better. The Factory Code was being stiffened up by legislation and better inspection. The hours of labour, still very long, were being slowly reduced, especially at first for women and children.

We would leave this subject here for some time and turn to the question of employment of women and children in India.

India was no exception to the exploitation of child labour and the unrestricted employment of women as is seen from the pious wish expressed by Mr. Redgrave, H. M. Inspector of Factories in the United Kingdom, in his report for the half year ending 31st October 1874.

"... looking to what factory legislation has achieved in this country, may we not hope that the native workers of India may be spared the ordeal which our cotton operatives went through in former days and

that they may be permitted to enjoy the blessings of moderate labour, of ample time for rest and meals, and of protection of children of tender age."

A beginning to regulate child labour in factories was started with the enactment of the First Indian Factories Act of 1881. This Act was however insufficient as far as provision for woman labour was concerned. Mr. Meade King (Inspector, Cotton Factories), in his report in 1882 on the working of the Factories Act of 1881, recommended amongst other things that the hours of work of women should be restricted to daylight. The Act of 1891 limited the hours of work of women to 11 in any one day and to the period between 5 a.m. and 8 p.m. with 1½ hours of rest.

The Act of 1911 prohibited the employment of women and children in certain dangerous work.

After the war, under the auspices of the I.L.O., the first International Labour Conference, which met at Washington in 1919—, proposed for India :

(a) 60-hour week.

(b) Prohibition of night-work for women,

The Convention relating to above was ratified in 1921, and provision for these was made in the Factories Act of 1922, which provided a 60-hour week and reduced the hours of adults, both men and women, to 11 per day. The Factories Act of 1934 further reduced the hours of work to 48 per week in perennial factories and 50 hours per week in seasonal factories.

The Factories Act of 1948 provides for creches in factories where more than 50 women workers are employed.

Reasons for Special Protection of Women Workers

A number of reasons can be put forth as being essential for special protection clauses :

(1) Women are essential to survival of society detailed study of the causes of sickness brings out the fact that it is the function of maternity which is most affected by industrial occupations. The combined action of occupational influences and pregnancy do constitute a considerable danger for women.

(2) Women are subject to physical exploitation. Even today, in a number of industries and trades, the work carried out by women is out of all proportion to their physical make up, *e.g.*, in brick-making, and in building trades.

(3) Climatic and economic conditions—women tend to feed themselves less substantially than men do and restrict their nourishment in difficult economic circumstances. The external factors, cold, heat, confined air, vitiated air, work carried out under awkward conditions favour the development of particular maladies in women.

(4) Effect of certain industrial poisons and occupations.

A large majority of industrial poisons induce a series of troubles in the generative organs, in women, which they derange both functionally and organically.

The infantile mortality rate shows a higher incidence amongst the children of women employed on industrial work. Fatigue and overpressure of work, the result of too long or too arduous toil, are without doubt a great cause of female sickness. Chlorosis, anæmia and tuberculosis are the diseases which affect the working women most,

Types of Protection

From what has been said above there exists a strong obligation to provide for adequate protection for the physical well being of women workers. The protection of women is considered in two stages—

- (1) the protection of girls, and
- (2) the protection of adult women.

The question of the protection of girls is dealt with under "Employment of Children" Part II.

The various types of protection needed for women workers may be detailed as follows:—

(i) *Maternity protection*.—This should aim at providing :

(a) No employment for the mother at least 6 weeks before and 6 weeks after childbirth.

(b) Income security during that span of time.

(c) Free medical care, both ante-natal and post-natal.

(d) Supply of milk at reduced cost to expectant and nursing mothers and young children.

(e) Rest intervals for nursing mothers.

(f) Provision of creche for the children of nursing mothers.

(g) Arrangements for attendance during confinements.

(ii) *Night-work*—Employment of women between 7 p.m. and 6 a.m. should be prohibited.

(iii) Underground work in mines of all kinds should be prohibited.

(iv) Maternity benefit should be provided.

(v) Hours of work should be regulated.

(vi) Employment in hazardous occupations. This should be prohibited for trades known to exert deleterious effects.

(vii) Attention to safety and health in the place of work.

(viii) Arrangements for feeding for themselves and their children.

(ix) Holidays, rest-breaks and recreation.

(x) Child care.

Legislation

Laws have been enacted to protect females up to the age of 14, as well naturally as during the time of pregnancy and childbirth.

1. *I.L.O. Conventions*.—Matters of statutory observance have been dealt with internationally the International Conference at Berne in 1908 as regards night-work; the International Conference at Washington, 1919, and later ones on other questions as:—

Convention 3 (1919) Employment before and after childbirth.

Convention 4 (1919) and No. 41 (1934) Employment during night.

Convention 45 (1935) Underground work in mines.

2. Indian Mines Act, 1923.

Prohibits work underground,

provides for creches;

monthly medical examination of children.

3. Workmen's Compensation Act, 1923,

4. Maternity Benefit Act, 1929, in Assam, applies to plantation female labour also.

5. Mines Maternity Benefit Act, 1929,

provides for 8 weeks in two instalments,

benefit Re. 0-8-0 per day,

qualifying period 9 months;

no notice of dismissal during the period; and

bonus when attended by a midwife.

6. The Factories Act, 1948.

Section 66.—Prohibits night-work between 7 p.m. and 6 a.m.

Section 34.—Prohibits carrying of excessive weights beyond a certain schedule which has been laid down.

7. Employees State Insurance Act, 1948—

Maternity benefit—Twelve annas a day for all days on which she does not work for remuneration during a period of 12 weeks in two instalments.

Other Questions regarding Women's Employment

1. The extent of their entrance into employment.

Cotton and jute mills account for nearly half the total number of women employed in industry. The other places of employment for women being the seasonal factories.

TABLE I.

Average daily Number of adult women employed in factories.

Year.	Total employed.	Women employed.	% of Women to Total.
1892 ..	3,16,816	43,592	13.7
1912 ..	8,69,643	1,30,025	14.9
1923 ..	14,09,173	2,21,045	15.6
1933 ..	14,03,212	2,16,837	15.3
1939 ..	17,51,137	2,43,516	13.8
1943 ..	24,36,312	2,65,509	10.4
1946 ..	22,23,502	2,74,194	12.0
1947 ..	22,30,568	2,57,951	11.6

Employment of Women in Factories in 1948.

STATES.	Adult women.		Adolescent females.		Children—Girls.		(* P. Perennial S. Seasonal.)
	P	S	P	S	P	S	
Bengal ..	56,646	7,395	264	75	25	21	The proportion of women, adolescent and children is the highest in Bombay, next come Bengal and Madras. The order of employment is as follows: Bombay .. 83,771 Bengal .. 67,770 Madras .. 62,144 C.P. & Berar .. 21,552 Assam .. 13,484 Bihar .. 11,287 U.P. .. 3,170 Delhi .. 1,663 Orissa .. 1,817 Ajmer Merwara .. 1,248 Bangalore and Coorg .. 603
Bombay (2j) ..	55,773	12,586	248	13	19	..	
" (5i & ii) ..	13,778	3,190	1,061	38	345	11	
Assam ..	385	11,734	47	226	..	55	
C.P. & Berar ..	10,901	10,467	73	18	7	..	
U.P. ..	2,101	5,877	..	..	..	..	
Orissa ..	3,172	26	180	..	15	..	
Bihar ..	10,825	1,254	567	..	241	..	
Punjab ..	853	892	22	..	1	..	
Delhi ..	1,031	..	..	..	4	..	
Ajmer Merwara ..	1,465	121	..	..	..	..	
Madras ..	51,413	8,232	814	37	2,236	58	
Total ..	208,344	62,073	3,276	407	2,893	145	

Employment of Women in Mines under Mines Act.

Year.	Under-ground.	Open workings.	Surface.	Total.
1942 ..	..	37,053	31,292	68,345
1943 ..	7,111	32,547	32,745	72,640
1944 ..	19,321	34,625	35,751	89,697
1945 ..	22,517	32,975	39,486	94,978
1946 ..	10,782	41,605	49,313	101,700
1947 ..	..	40,067	51,183	91,250
Total ..	59,731	194,872	239,770	518,610

Employment of Women in Assam Tea Plantations.

Year.	Settled labour.	Faltu or Basti labour.	Total.
1942 ..	154,954	25,673	180,627
1943 ..	167,879	18,142	186,021
1944 ..	158,741	15,108	173,849
1945 ..	148,381	14,881	163,262
1946 ..	146,085	20,645	166,730
1947 ..	124,393	18,642	143,035

Employment of Women in various Industries under Factories Act in 1946.

Serial No.	Industries.	Females.			Total.	% to Total.
		Adults.	Adolescents.	Girls.		
1	Cotton Spinning & Weaving ..	67,380	1,015	91	68,486	45
2	Jute Mills ..	42,881	251	33	43,165	28
3	Engineering ..	6,139	55	1	6,195	4
4	Minerals & Metals ..	7,517	2	10	7,529	5
5	Sugar Factories ..	130	..	..	130	.08
6	Paper & Printing ..	1,855	12	43	1,910	1
7	Chemicals & Dyes ..	10,798	381	823	12,002	7
8	Wood, Stone & Glass ..	12,230	242	192	12,664	8
				Total ..	152,081	

It is noted that cotton and jute mills account for 73 per cent. of the total number of women employed in industry, the other sources of employment employ only 27 per cent. There has been much stability in the occupational distribution of women labour force.

Employment of Women in Factories in 1946 in the various States.

STATES.	Women.		Adolescent Females.		Girls.	
	P	S	P	S	P	S
Madras	48,661	10,395	1,492	31	1,535	30
Bombay	69,304	13,493	594	45	320	15
Bengal	59,271	7806	447	166	28	52
U.P.	2,401	763	4	..	2	..
Bihar	10,370	830	44	..	11	32
Orissa	1,538	32	47	..	..	..
C.P. & Berar	10,591	10,838	48	66	9	..
Assam	399	12,681	40	233	1	130
Ajmer Merwara	538	710	..	..	..	..
Delhi	1,630	..	8	..	25	..
Bangalore & Coorg	603	..	..	..	..	..
Total ..	206,342	62,336	2,724	595	1,933	264
	268,678		3,319		2,197	
Grand Total ..	274,194					

Employment of Women in Factories in 1946.

Adult women ..	268,678
Adolescent females ..	3,319
Girls ..	2,197

Employment of Women by Important industries in various States in 1946.

BOMBAY		BIHAR	
INDUSTRY.	No. employed.	INDUSTRY.	No. employed.
Cotton Spinning and Weaving ..	40,876	Minerals and Metals ..	5,195
Wood, Stone and Glass ..	3,819	Wood, Stone and Glass ..	2,636
Engineering ..	3,878	Chemicals and Dyes ..	1,437
Chemicals and Dyes ..	2,899	Engineering ..	451
Paper and Printing ..	1,020		
Minerals and Metals ..	265		
BENGAL		U.P.	
INDUSTRY.	No. employed.	INDUSTRY.	No. employed.
Jute Mills ..	41,198	Cotton Spinning and Weaving ..	877
Cotton Spinning and Weaving ..	1,934	Chemicals and Dyes ..	315
Minerals and Metals ..	1,832	Wood, Stone and Glass ..	268
Engineering ..	1,471	Jute Mills ..	258
Wood, Stone and Glass ..	3,819		
Chemicals and Dyes ..	1,387		
MADRAS		C. P. & BERAR	
INDUSTRY.	No. employed.	INDUSTRY.	No. employed.
Cotton Spinning and Weaving ..	19,743	Cotton Spinning and Weaving ..	4,339
Chemicals and Dyes ..	4,039	Chemicals and Dyes ..	1,870
Wood, Stone and Glass ..	2,879	Wood, Stone and Glass ..	1,277
Jute Mills ..	1,197	Engineering ..	159

As will be seen from the tables above, the employment of women depends on the kind of products in which the State abounds. In all States except Bihar the greatest employment is in cotton spinning and weaving. In Bihar, it is in minerals and metals and trades allied to it.

Of course, the situation of women will depend to a large extent on many economic factors. Foremost of these, of course, are the extent to which the entire economy can develop a high level of employment and the extent to which the industries expand that require the particular types of work women do best. This is illustrated best by considering the employment of women in mines where they form about 24% of the total employed in mines and the employment of women in tea plantations (in Assam and other places) as below :

Average daily employment in Assam Tea Plantations.

Year.	Settled labour.		Faltu labour.		Total labour.	
	Men.	Women.	Men.	Women.	Men.	Women.
1941-42	200,377	154,954	21,046	25,673	221,313	180,627
1942-43	192,093	167,879	13,940	18,142	206,033	186,021
1943-44	179,454	157,741	10,044	15,108	189,498	173,849
1944-45	181,842	148,381	11,300	14,881	193,142	163,262
1945-46	189,838	146,085	18,010	20,645	207,848	166,730
1946-47	164,698	124,393	15,976	18,642	180,674	143,035

Of great importance will be the opportunity for employment of men at wages sufficient to support their families, since many women who now have a real job at home as well as at the factory will leave the labour market if the male earners receive enough pay.

Broadly speaking, the number of women factory workers has been rising very gradually but as a percentage of total factory

labour, female labour has been showing a steady decline. Thus while in 1913, women constituted 15% of the total factory labour, by 1943 the percentage had gone down to 10.4 and in 1947 it was 11.6 (TABLE I).

There are many other factors that will share in determining how far women will remain in employment or the number of women employed will increase—for example, the extent to which industry is suited for women's performance, the skills women have shown, the demand for work in industries that in past years have employed many women. No proper forecast is possible of the probable trend of woman labour employment.

2. The types of work they are doing :—

In countries in the West where the level of employment is very high the various types

of work where women are employed may be given as follows :

(i) In producing consumer goods, as in the electrical, shoe, textile, food, jewellery and other industries.

(ii) In service industries as in restaurants, laundries, households and various setting trades.

(iii) In community services as in health, welfare, social security, child care.

(iv) In specialised technical and professional work, as in medicine, nutrition, education and scientific services.

(v) In business and clerical operations as in secretarial work, statistics and accounting.

The maximum employment of women in this country is in Group (i) above. Other groups have a handful only employed. Even in Group (i) it is in the non-skilled work where their employment is preferred.

3. Satisfactory conditions surrounding their jobs.

Social Legislation in relation to Women Labour.

Maternity Benefit Acts

The main defects of maternity benefit legislation as pointed out by the Labour Investigation Committee report are :

(1) It is neither uniform nor universal.

(2) There is no provision for free medical aid, before, during and after confinement except in few States.

(3) There is no provision for preventing an employer from dismissing a woman worker on the first sign of pregnancy except in few States.

(4) The administration of the Act is not entrusted to women inspectors.

Many women workers do not claim benefits on account of their ignorance, as they usually find it difficult to comply with the requirements of the law as

(i) to give timely notice to the employer ;

(ii) to put in the qualifying period of service ;

(iii) to resume duty immediately after four weeks of the confinement ;

(iv) to obtain birth certificates for claiming the benefits.

(5) The cash benefits payable and the period for which they are payable are not adequate.

(6) Maternity clinics for women workers are very few.

(7) The working of the Act is most defective in seasonal factories like rice mills, and cotton ginning and baling.

For the purpose of maternity benefits certain fundamentals are :

(1) The period of benefit should not be less than 12 weeks—6 weeks before and 6 weeks after confinement.

(2) The amount of benefit—the benefit should not be less than the actual average wage of the women.

(3) The provision of compulsory and free maternity clinics—provided by the State or industry or in combination.

(4) The minimum qualifying period to cover women labour in seasonal factories.

(5) The provision of women inspectors to assure payment of benefits.

(6) The provision of activities to promote welfare of women workers.

(To be continued.)

MEDICAL ADMINISTRATORS?

GOOD medical service depends constantly on the efficient, orderly, economical and resourceful management of the administrative phases of the programme. Qualified professional personnel, however, are not necessarily experts in the field of medical, hospital, and public health administration.

The proper training of administrative personnel—both lay and professional—is as essential as sound preparation for any of the clinical specialties. Graduate courses in medical administration should be further developed, based upon a solid grounding in the health sciences and integrated with practical field training. The university schools of public health seem to be the proper places for the needed expansion of such training efforts*. A national health programme should contain carefully formulated standards for administrative personnel, and should include such personnel in the programme of grants-in-aid for education and training.

Preventive Care

A most significant criterion of medical care of high quality is the degree of emphasis placed upon prevention of disease. The unfortunate separation of preventive and curative medicine—historically developed in the independent activities of public health officers and private practitioners—is incompatible with the highest standard of

modern medicine. "Prevention" no longer deals only with preventing the initial onset or occurrence of disease. It also means preventing the continuance or progress of disease which has already occurred; it means preventing the development or persistence of disability or invalidism, and of dependency, destitution, and other undesirable social effects. In other words, effective preventive service requires prompt, comprehensive, and continued personal care as well as community service of the kind traditionally associated with public health activity.

Public Health Services

A national health programme should include provisions for the development of full public health coverage in every area and for the integration of medical services with the activities of public health agencies. Community organization of disease control measures applicable to large groups of people can reduce considerably the incidence of illness. Public health measures, if properly supported, can eliminate many of the preventable diseases now adding to the costs of medical care and public assistance. Provision of optimum community health protection allows the greatest possible application of medical care funds for diagnostic and therapeutic services in conditions not controllable by present-day mass methods.

Preventive Medical Care for the Individual

Effective preventive service requires not only close coordination of the medical care programme with that of public health

(Continued on page 328)

HEALTH AND ENVIRONMENT

by

Our Study Circle

Drainage.—Drainage schemes, on modern lines, are the basis of all sanitary improvements in urban areas. The demand for them is scarcely less than that for piped water and is steadily on the increase. As in the case of water-supply complete figures are not available but the known expenditure during the last twenty years has been considerable and is now rapidly increasing. The expenditure on completed works outside the presidency towns and Rangoon during that period amounted to Rs. 97,65,049 (£651,003) whereas the cost of the works under construction is estimated at Rs. 1,54,20,502 (£1,028,033). In the beginning precedence over drainage was given to piped water-supply but experience has demonstrated the advantage of introducing both concurrently. Without drainage there is no means of carrying off the surplus water and without piped water-supply, it is difficult to flush the drains properly.

When drainage schemes on modern lines were first started in this country, there seems to have been a bias against the use of sewers and, wherever possible, open drains were adopted. Experience has shown that the preference for the open drain, and the fear that sewers would give excessive trouble, were not well-founded. On the contrary, much of the advantage of a drainage system is lost if only open drains are used, as the old system of hand-carriage latrines has to be continued. Moreover, economy in establishment is possible only in the case of a sewerage system.

Epidemic Diseases.—The Government of India desire to invite the attention of local Governments to the importance of providing adequate facilities for the isolation of cases of epidemic diseases. The isolation of individuals suffering from infectious diseases is often desirable and sometimes necessary, and it would seem desirable to have in every important municipality a small well-built segregation hospital in charge of a qualified medical practitioner, who might be one of the medical registrars for vital statistics.

A revised set of regulations under the Indian Ports Act for the prevention of the spread of infectious and contagious diseases is under consideration.

Pilgrim Centres and Pilgrimages.—Pilgrimages necessitating as they do the collection of large numbers of persons, often more than a million, at one place at one time have an important sanitary aspect mainly in connection with cholera and other communicable diseases. The Government of India recently decided to examine the sanitary arrangements at the chief places of pilgrimage throughout India and local Governments were asked to appoint provincial committees for this purpose under the presidency of the Sanitary Commissioner with the Government of India with a view to formulate practical schemes of improvement. The inquiry is still in progress but the Government of India have already made a grant of Rs. 2 lakhs (£13,333) and promised an additional grant of 4 lakhs of rupees (£26,666) spread over four years towards

the improvement of the pilgrim route to Badrinath; and they have made a further recurring grant of Rs. 20,000 (£1,333) a year for the same object. The important question of improving the conditions of the pilgrimage to the Hedjaz by Indian Muslims is undergoing close scrutiny. The Governor-General in Council anticipates that these inquiries will lead to signal sanitary improvements and promote the convenience and comfort of many millions of His Majesty's loyal Indian subjects.

Adulteration of Food and Drugs.—The adulteration of food and drugs is common and has an important bearing on public health. Provisions for dealing with adulteration of food-stuffs exist in most municipal enactments in India, but these are confined to municipal areas and are restricted in their operation. Bombay and the United Provinces have special laws dealing with the question. The Government of India have recently enquired from local Governments as to the desirability of legislation, imperial or provincial, on the subject. The question is not free from difficulty, as, besides the necessity of fixing standards, a competent staff of analysts and inspectors is necessary, and for any real success the co-operation of the people is required.

Adulteration of Milk.—The adulteration of milk is almost universal in Indian bazaars and a large proportion of the milk consumed is contaminated. In most cities, the milk-supply is in the hands of men ignorant of the elements of sanitation and addicted to uncleanly practices. Moreover, the milk when stored and in transit to market is liable to contamination in several ways. On the other hand, the price of milk is

already very high and the problem of improving the purity of the supply without increasing the price to such an extent as to cause hardship to the poorer classes is a difficult one.

The Lucknow Sanitary Conference recommended that the development of the dairy industry and the organisation of the transport and sale of milk should ordinarily precede measures of sanitary restriction; and that there should be mutual help and co-operation between sanitarians, milk dealers and the agricultural department. That department is already considering how to develop a profitable dairy animal, a measure largely dependent on suitable and regular feeding. While local authorities should clearly insist on cleanliness in the conditions under which cattle are milked and dairy produce is manufactured, stored, or transported in towns, the removal of cattle so far as possible to cheap, healthy and natural surroundings outside cities is a measure greatly to be commended. The establishment of co-operative dairy farms in the United Provinces, the Central Provinces and elsewhere has so far been attended with success and should be encouraged. Attempts might well be made to induce *gowalas* to organise milk production outside cities and its transport to market on co-operative principles. Should these methods prove successful it may be possible without raising the price to bring the milk-supply under necessary sanitary control. The Government of India commend the whole question to the early attention of local Governments. With regard to milk standards, conditions in India differ from those in Europe, and chemical standards should be fixed by persons possessing

adequate local knowledge and experience, and with due regard to local conditions.

Town-planning and Relief of Congested Areas.—While much has been done to provide drainage and pure water in large cities, there can be little hope of improving their sanitary condition permanently until measures are taken to relieve congested areas and to provide broader streets and buildings more open to sun and air. The constitution in 1898 of the Improvement Trust in Bombay marked a notable step in advance. By the end of 1912-1913, the Bombay Trust had incurred an expenditure of Rs. 488 lakhs (£3,253,333) towards schemes aggregating Rs. 802 lakhs (£5,346,666). Broad roads have been driven through the heart of the city, slum areas have been abolished; and dwellings provided for the accommodation of the poorer classes. The Calcutta Improvement Trust constituted in 1911 is now developing similar schemes for the improvement and development of Calcutta. Funds for these great projects have been provided mainly from local taxation and municipal contributions, supplemented in the case of each city by an imperial grant of Rs. 50 lakhs (£333,333) and, in the case of Calcutta, by a recurring grant of Rs. 1½ lakhs (£10,000) for 60 years. In other provinces, similar works have been carried out on a smaller scale in the larger towns, notably in the United Provinces and at Lucknow.

There has been, as already stated, an increasing desire on the part of the well-to-do in cities to escape from their present insanitary surroundings and to obtain houses in more open positions outside city limits. In India, as in England, municipalities are confronted by the difficulty of obtaining

land for town extensions except at prohibitive cost. The multiplicity of small owners in this country, and the impossibility of persuading them to co-operate, render any considered and comprehensive plan of town extension impossible in the absence of some controlling and co-ordinating authority armed with powers of compulsion. In their letter of 26th July 1912, the Government of India indicated their opinion that where land on the outskirts of a town was mainly agricultural and could be acquired cheaply *en bloc*, the local body would probably be well advised to purchase it outright.

Such a policy however, will, for financial reasons, often be impossible on a large scale. Where the cost of acquisition is prohibitive, control may be preferable to acquisition, and in their circular letter of the 26th July 1912, the Government of India drew attention to the features of a scheme under discussion in the Bombay Presidency which has now been incorporated in a Town Planning Bill. The principal feature of this scheme is that the cost is apportioned and recovered from the various persons and interests concerned in the shape of a development contribution calculated in proportion to the increased value which is estimated to accrue to each plot on the completion of the scheme; the tax that can be levied from any one owner being limited, as in England, to one-half of the betterment estimated to accrue. The local body remains liable for any excess cost not covered by the tax. Such a scheme involves taking powers to pool and redistribute small holdings in a form suitable for building purposes. It has the advantage of reducing capital outlay while securing for public purposes a share in the profits of the

transaction. The Government of India have also invited an examination of the provisions of municipal acts for dealing with insanitary areas and have inquired whether the limitations contained in the English Housing Acts on excessive compensation in areas, which, after due inquiry, have been declared insanitary, might not be introduced in India. The first step towards improvement is to fix a standard of light and ventilation suitable to local conditions; the next is to ensure that adequate building regulations providing for this standard are introduced by all municipal bodies and that a competent executive staff is appointed with full powers to carry them out. The whole question will be reviewed when the replies of local Governments have been received.

Rural Sanitation.—The difficulties which surround rural sanitation in India are well-known and persistent. Contaminated sites, polluted water-supply, badly constructed and insanitary dwellings, the habits and prejudices of the people raise obstacles to progress which in most provinces are still well-nigh insuperable. The Government of India have informed local Governments that they are at liberty to expend a portion of the imperial grants for urban sanitation or rural sanitation, provided practical schemes for this purpose are forthcoming; but they have postponed special imperial grants for this purpose until such schemes are more generally advanced. They fully appreciate the enormous importance of rural sanitation in a country which is mainly agricultural. Past experience and present conditions, however, indicate that the subject is still one for experiment on lines conceived to attract the co-operation of the people.

Without their cordial help no sanitary staff could effectually deal with the village sanitation of the two hundred and twenty millions who inhabit rural areas in British India. The danger of employing low-paid and imperfectly trained subordinates in a matter so closely affecting village-life is now generally recognized and should never be out of mind.

The following observations are based on practical experience of rural sanitation:—

(a) Travelling dispensaries may be used to spread a knowledge of the simple facts regarding the more common diseases. For this purpose the sub-assistant surgeons in charge should be given a special training in hygiene. Once they become known to the people as healers of the sick their advice as sanitarians may become more acceptable.

(b) The improvement of the village water-supply is as important as it is difficult. Apparently, excellent results have been obtained by disinfection of wells with permanganate of potash. Experiments are being made in different parts of India in the use of tube-wells, etc. It might serve as a useful object lesson to use pumps and tube-wells for the provision of water at fairs, schools, hospitals and local public offices. In some localities, a tank supply alone is possible and the difficulty is to protect even new tanks from pollution.

(c) In several provinces, notably in Madras, village unions, or circles, have been formed and their committees entrusted with small grants for the improvement of the sanitation of the village site. This measure might be

extended experimentally elsewhere. It is calculated to encourage discussion and inquiry regarding sanitary work.

(d) Village midwives are, in some districts, encouraged by small grants of money and rewards to attend at the headquarters hospital for a short and simple course of training. These measures open up possibilities with reference to a reduction in infantile mortality and children's disease generally.

(e) In most districts in India, the civil surgeon is also in theory the sanitary officer of the district. His duties at headquarters, however, do not allow him to tour and inspect in the district to the extent that is necessary: even in the case of epidemics in the district it is sometimes not possible for him to leave headquarters. In some provinces, district sanitary officers have been appointed and there can be little doubt that many more such appointments are required and that one of the most urgent and hopeful measures for promoting rural sanitation is the appointment of well-qualified and whole-time district health officers to control and organise all sanitary arrangements and experiments in the district.

Need for Education.—The diffusion of sound education will, however, remain the most potent and penetrating instrument of sanitation among a population which still views it for the most part with hostility, or unconcern. The claims of hygiene as part of their educational policy were recognized by the Government of India in their educational resolution of the 21st February 1913. It may be hoped that before many years have

passed educational institutions will have become missions of sanitation in their own vicinity and beyond. Meanwhile, some simple knowledge of the more common infectious diseases may with advantage be diffused. The difficulties are considerable and systematic organisation is required. The Indian branch of the St. John Ambulance Association has offered its valuable assistance. In several provinces, pictorial leaflets are distributed and simple lantern lectures and demonstrations are given at fairs and other large gatherings, while in Bombay popular lectures to teachers, students and others have been organised by Major Glen Liston. The Indian Research Fund Association has decided to establish a central bureau where lanterns and lantern slides, pictures, and skeleton lectures can be stocked for issue on loan. Much may be done by utilising the services of municipal health officers and medical subordinates attached to travelling dispensaries and by enlisting the sympathies and active help of medical women, private medical practitioners, and private philanthropic agencies and persons. Sanitation must begin at home and as the Hon'ble Sir Pardey Lukis and Colonel Firth, the former on the civil, the latter on the military side, have pointed out, there will never be any real advance in domestic or personal hygiene until the women of the country realise its advantages and necessity. The encouragement of medical women to preach the gospel of health inside the zenana and to organise purdah parties for simple lantern demonstration lectures and the employment of nurse visitors as in Delhi, Calcutta, Madras and Bombay, are to be commended.

Periodical local conferences and publications similar to that recently issued by the Bombay Government entitled "Some recent sanitary developments in the Bombay Presidency" are very useful and keep the question of sanitation before the public mind. Other methods for preparing people to combat preventable disease and premature mortality may suggest themselves. There is room for many workers in the sanitary field. The

Governor-General in Council appeals with confidence to all who have interest in the well-being of India to join with him and the local Governments in a sustained endeavour to give effect to His Imperial Majesty's most gracious wish that the homes of his Indian subjects may be brightened and their labour sweetened by the spread of knowledge with all that follows in its train, a higher level of thought, of comfort and of health.

Medical Administrators ?

(Continued from page 322)

agencies, but also strong programme emphasis on individual health promotion and preventive care by practitioners. The effectiveness of the preventive work accomplished reflects in large degree the extent to which financial barriers between the patient and the practitioner have been removed. Good preventive care requires the elimination of special charges for initial or any other visits to the physician or clinic. It implies the geographic availability of services, as provided through coordinated regional network and special incentives for rural practice. It makes essential the placing of administrative emphasis upon effective home and office care, diagnostic services for ambulatory patients, and simplification of administrative procedure in the provision and receipt of personal care.

The medical service of the programme should also facilitate appropriate periodic health inventories of selected classes of individuals. Provision should be made—in conjunction with public health agencies—for mass screening programmes utilizing

such newer techniques as the 70 millimeter chest X-ray and the micro-chemical diabetes test. Such health inventories are made feasible only by the removal of the financial barriers confronting the supposedly healthy individual and by the assurance of medical care for disorders which come to light. An essential component of these appraisals should be health guidance for the entire family.

Policy and Planning

Those in charge of administration should be experts in this field, specially trained, adequately compensated, and chosen on the basis of a merit system. Competence in purely clinical or academic functions does not necessarily qualify a professional person for administrative responsibility. Quality of medical service and efficiency of operation can also be improved by the regular utilization of expert consultants in the various technical phases of the programme.

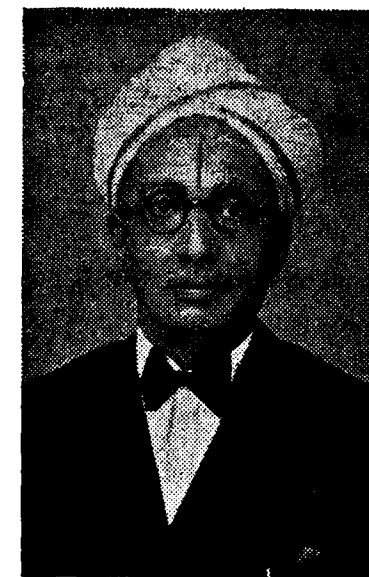
[Extracts from the statement by the Sub-Committee on Medical Care of the American Public Health Association—*American Journal of P.H.*]

WATER SUPPLY

by

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PUBLIC Health has been defined as the science and art of preventing disease, prolonging life and promoting physical health and efficiency through organized effort.

Modern Public Health had its origin in England in the middle of the 19th century, when sanitary conditions in cities had become intolerable as a result of rapid industrial development. Public Health in England first concerned itself with the improvement of the environment and was really, therefore, an art at that time as the biologist, the chemist, and the biochemist had not given to the world, the principles on which modern public health is based.

Municipal sanitation was the main item of any public health programme. Though the germ theory of disease had not been established, it was recognised that an abundance of good water was essential to promote health and it was also known, that the spent water required to be carried away to a safe distance in order to prevent unbearable conditions. With the advent of the Bacteriologist in the latter half of the last

century, preventive medicine became a prominent feature of environmental sanitation. The provision of protected water supplies, of efficient sewage disposal, of suitable legal and other enactments for ensuring safe supplies of milk and food and of several other amenities that make for comfort and good health, is the all-absorbing concern of modern public health administrations.

After 150 years of British rule in India, our national health has not improved to any extent. The general and infantile mortality rates per thousand, in the Madras State, have been 24.2 and 170 respectively as compared with 12.4 and 58 in England and 11.2 and 54 in the U.S.A. The expectation of life in India is the lowest in the world, being 27 for males and 26.5 for females, as compared with 59 and 63, both in England and America. India ranks as one of the largest reservoirs of infection in respect of cholera, typhoid, smallpox and plague; these, together with malaria and tuberculosis, levy an enormous toll of lives every year.

A high death rate naturally always implies a high sickness rate and also a population, in which many are reduced to miserable poverty, due to loss of health and consequent loss of wage-earning capacity. The Bhole Committee has stated, that the provision of an adequate supply of good and safe water, should receive the *highest priority possible* from administrations responsible for the welfare of the people. In the Madras State, however, only 7 per cent. of a total population of about 60 million people have the benefit of a protected piped water supply. The great and urgent need for the provision of a protected water supply in order to prevent water-borne epidemics, like cholera typhoid and dysentery, amongst the vast majority of the people cannot therefore be over-estimated. The responsibility of the State in this direction is, therefore, indeed very great. Needless to add, the co-operation of the people is essential.

Pure water does not exist in nature. The common impurities exist either in solution (as gases, mineral salts and organic matter) or, in suspension—(as silt, clay, sand, algae and bacteria). Some of these are of no consequence, *except* when present in excess, while others are of such great and grave importance (these include the disease-producing bacteria) that even when present in small amounts, they should be effectively removed from drinking water supplies.

Organic matter in water is derived from algae and other growths, as a result of their natural death, decay and decomposition, also from excretal pollution introduced by men and animals. Organic impurities and bacteria are usually removed from water by filtration and subsequent chlorination. Raw

waters containing suspended and organic impurities in excess, will require aeration and also pre-treatment with suitable chemicals like alum, alumino ferric, activated carbon, etc., to render them fit for subsequent filtration. These processes, when properly and efficiently carried out by qualified persons, will result in a perfectly safe and aesthetically good water that could be drawn and used straight out of the distribution taps. The water-works operator should realise that the health and well-being of thousands of people are in his hands and that he has, therefore, a most sacred and responsible duty to perform. Any little remissness on his part, might result in a terrible catastrophe, particularly during an epidemic season.

I propose to deal next with the physiological effects of the inorganic mineral substances found in solution in natural waters. We often hear of waters being condemned by lay people as 'unfit', 'unpalatable' 'disease causing', 'heat-inducing', or 'cold-producing' and so forth. These are vague terms but often based on the concentration of one or more of the inorganic mineral salts present. Let me tell you at once, that only a few inorganic substances have been shown by scientific research, to affect the public health, in the concentrations in which they are ordinarily found in natural water supplies. Some may affect the colour, odour, taste and turbidity of the water. Taste and odour, no doubt, may produce a psychological effect in some persons to the extent that they may develop and exhibit physiological reactions. There is obviously, therefore, much difference between a pure water and a physiologically safe water.

Human beings are not physiologically identical. They show considerable variations in their physical and mental make-ups. Individual idiosyncrasies vary with age, sex, climate and occupation. The effects of small traces of many mineral substances on the body's chemistry are still puzzling even to specialists.

Hard waters have been blamed for various disorders such as, urinary concretions, arteriosclerosis, dyspepsia, constipation, diarrhoea, goitre, gout, rheumatism and what not? Hard waters have, however, been *completely exonerated* by eminent investigators working independently in different countries. Some European authorities have even recorded that in communities where hard water is systematically used for drinking, better teeth, better body weight and stronger nerves are produced.

The human body requires approximately 10 to 15 grains of Calcium per day. Calcium taken with water would no doubt supplement, that consumed with food.

Sodium chloride and Sodium nitrate pass through the intestinal walls and are absorbed by the kidneys and eliminated in the urine. This produces thirst, by quenching which we flush the salts from the system.

Value of Metals in Water

All metals dissolve in water. Copper has, during the past 25 years, assumed a very important role as a necessary supplement to iron for haemoglobin regeneration. It is an essential constituent of tissue-cells. Prolonged heavy exposure to copper-ions would, no doubt, damage the body. Traces of copper in water supplies, such as may occasionally be present when raw water laden

with algae is treated with copper sulphate, will not be harmful to health. Our body requires 2 milligrams of copper per day and so any trace of copper in water will certainly be beneficial to health. People need not therefore fight shy of taking water treated with copper sulphate and chlorine or chloramine. These are considered objectionable and even poisonous by some people. This is a very wrong notion.

Practically everything in this world is poisonous, yet nothing is poisonous if used correctly and in moderation. This applies not only to copper but to nearly every other inorganic salt present in water. Biologists and physiologists, say that the old time practice of cooking in copper and iron vessels is conducive to health. The use of copper vessels, in Indian households for storing water and for cooking, had thus a scientific and hygienic basis. Unfortunately, this has gradually gone out of vogue in obedience to the dictates of fashion and to the vanity of our ladies who vie with one another in parading their silverware.

Vessels of stainless steel which are fairly expensive are fast becoming the fashion even amongst the middle class people. But time must show that it will be quite all right to use vessels of all brands of this new alloy for domestic purposes.

Aluminium: Aluminium has been proved to be quite harmless to use for all domestic purposes; the scrap aluminium from condemned aircraft is, however, reported to be unsuitable for cooking and other domestic purposes.

Arsenic is very rarely met with in natural waters and the amount going into the supply from galvanized iron pipes is negligible.

Lead has enjoyed an evil reputation, as it is acted on by acid waters, and 0.1 ppm. of lead has been laid down as the permissible upper limit in water.

Iron salts are physiologically harmless to the system. Man requires 5 to 6 milligrams of iron per day and inorganic iron as found in drinking water can still be absorbed and utilized by the system. Water containing iron is *not*, however, suitable for use in laundry, paper-making and several other industries. The iron will, therefore, have to be removed for such use.

An upper limit of 5 ppm. has been laid down for *zinc* in water; 30 ppm. of *zinc* will cause a milkiness in water and render the water unpalatable. Waters with a high zinc-ion content should not be used for making acid drinks, such as lemonade, as the resultant zinc citrate is a very poisonous substance.

Selenium, *Boron*, *Manganese*, *Radium*, *Silver* and *Barium* have all come in for comment and criticism in connection with drinking water supplies.

Selenium-containing waters and forage grown on seleniferous soils in Colorado, have been suspected to cause death in cattle.

Boron has not so far been known to be, physiologically harmful even in moderately large amounts.

Manganese, like iron, is usually removed from waters to render them fit for industrial purposes.

I have not so far come across any report of poisoning by *Radium* from drinking water.

Silver has been used for water sterilization in Germany since 1925 and this process,

called the Katadyn process, is covered by a patent.

Fluorine has been responsible for a dental dystrophy characterised by the mottling of the enamel of the teeth in children, who regularly drink waters containing 1 ppm. and over, of fluorides. Fluorides have also caused severe spine and bone-involvements, resulting in total disablement and premature death, in adults in Nellore and Guntur districts. In my investigations there, I found that, besides the excess of fluorides in water, a chronic state of malnutrition and deficiency of vitamin C in their diet were the contributory accelerating causes.

Dental caries in children are prevented and cured by small doses of sodium fluoride added as a corrective to water-supplies, in some of the United States of America.

Iodide is similarly added in Switzerland to some water-supplies deficient in iodine to prevent endemic goitre.

Water, a medicinal agent

Turning next, to the pharmacology of water, let me say it relates to the positive beneficial results to be derived from the use of water which is considered by many to be a mere thirst quencher. It is much more than that. It is also a medicinal agent. Water is a great solvent of gases and salts and water to be palatable must always contain these two. Water aids digestion, elimination and the automatic regulation of our body-temperature. The dilution of food by water, does *not* dilute the pepsin and acid in the stomach. It really increases their secretion and doubly aids digestion. The desired quantity of water may, therefore, be drunk during meals without ill

effects. A drink of water will allay the pain due to hunger contractions in the stomach.

Waters containing CO_2 are used for their medicinal effect. Carbonated water stimulates the stomach into increased activity by a mild irritation and, thereby, increases absorption and elimination. It aids also in expelling flatulence.

Waters of thermal springs containing H_2S and alkaline sulphides are recommended for various diseases; I believe, however, that the heat present in such waters and the frequent baths therein ordered by the physician, help in producing relief more than the sulphides, themselves.

The palatability and cooking properties are indeed very good guides in the choice of a good source of water supply for any community and our forefathers always built our temples *only* on sites, where an abundant supply of *excellent water* was first secured.

Temple wells form even to-day the main source of water-supply in hundreds of towns and villages.

Human instinct is seldom found to have failed in the assay of the potability of water from the chemical point of view. To all intents and purposes, therefore, a good and safe water for drinking purposes requires only efficient bacteriological purification, except when an absorbable poison is present.

Any adventitious circumstance under which water is used, or any peculiar property, real or imaginary, that will encourage a more liberal use of water either internally, or externally, is not to be under-rated in its bearing on health, for the health of the people is the wealth of the State.

Jai Hind!

(Courtesy, A.I.R., Madras.)

Public Relations and Information

The man in the street does not always appreciate the efforts and difficulties involved in providing him with a supply of water, the adequacy of which he is apt to take as a matter of course. Many customers are not aware that, before the finished product can reach the tap, means have to be found for its collection, storage, treatment and distribution. The public should be brought to realise that these essential processes are, in fact, costly and that water wasted means waste of labour and materials, and leads in the end to higher charges.

Public relations activities should be conducted with a view to advising consumers on protecting their installations against damage by frost and to stimulating an interest in the need for economy in the use of water by the reduction of unnecessary consumption and the speedy repair of faulty taps, water closets, cisterns, etc.

(Committee on Causes of Increase in Consumption of Water—Interim Report—Ministry of Health, England).

NEED FOR RELAXATION

by

M. G. Puttanna

Department of Public Health, Bangalore.



RELAXATION, as the word implies, is to make one's body and mind easy after the day's work. If the mind and body are to be kept in a state of equipoise and freshness, relaxation is very essential. It is as necessary to the day-labourer as to the brain worker. Without proper relaxation, the functions of the organs will automatically be reduced in tone and quality which ultimately result in the breakdown of the nerves which are the mainsprings for the efficient working of both the brain and the brawn. The secret of health lies in proper arrangement of work and play at regular intervals.

The Need for Relaxation

The present order of society has put a great drain upon the energy of the human being, requiring him to do greater work whether in the field, classroom or laboratory; hence the necessity for relaxation is all the more. But the fact has not been taken in any degree of seriousness and it is argued that it may not be so very essential to kill time wastefully. But the folly of such a negligence will be seen

only when the whole system of the body begins to show signs of breakdown, and when it is too late for reconstruction or repair. It is common knowledge that the world has lost many a great man, prematurely and each time it has been a case of wilful neglect on his part.

It is, therefore, hardly necessary to emphasise the need for relaxation, if one is to maintain fitness of body and mind. It is a voluntary action of the physical self and nature has given human beings the freedom to make or mar their lives. One's healthy condition depends upon proper relaxation, and happiness is the sum total of the co-ordination of body and mind in all their parts and functions. Each is linked with the other to make life what it ought to be. It must be admitted that a person cannot always be working either bodily or mentally; without rest for them he gets jaded and worn out before long. There is a story told of a huntsman who, on his way home from the day's hunt, saw a saint sitting outside his

hermitage, patting the back of a cat and playing with it. The huntsman stopped and asked the saint how he could afford to waste time when he ought to be devoting his precious hours to better things. The saint asked the huntsman why his bow was not kept bent. The huntsman replied that, if he were to keep the bow bent always, it would soon lose its elasticity and tension and thus become useless. Then, said the saint, man's mind cannot always be bent on work as he too required necessary relaxation. It is, therefore, a vain excuse for anybody to plead that he has no time for relaxing himself.

How to Relax

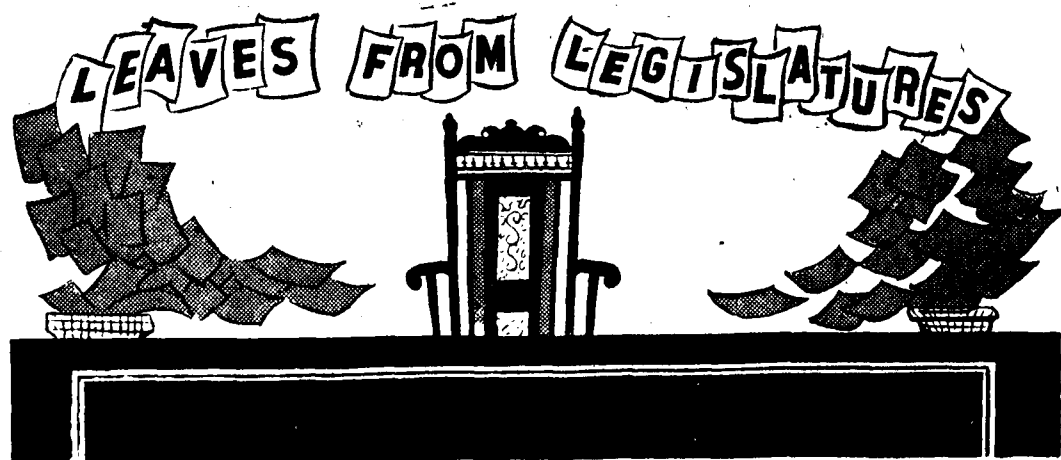
There are several ways of relaxation and any one of them can be advantageously chosen to suit individual tastes. There is no hard-and-fast rule about it. But it should be noted that coercing a state of relaxation by unhealthy ways, such as, through drugs and alcoholic beverages, might provide a temporary relief but would be greatly disastrous. Even the Prime Minister of India, Pandit Jawaharlal Nehru, who is said to be the shortest sleeper in India, due to his being engaged at work all the time, finds some time for relaxation. If that were not so, it would have been humanly impossible for him or for anyone else to keep the mind or body working efficiently even for a continuous length of time. The secret of success lies in proper relaxation. This is also an art and every one must learn it in a proper and systematic manner so that he may reap its full benefits.

To relax is a difficult task, more difficult than it appears to be. One may easily sit tight to solve a problem and solve it too,

after an hour's strenuous work, but to bring back the mind and set it at rest is a hard test of one's power of self-control. If one could discipline his mind to this state of relaxation at will, it is in itself a great personal achievement. It is to this end that every one should strive. It is easy to relax the body when the mind is under control. Needless to say, when the body and mind acquire the state of equipoise and balance, health is assured and the body becomes an invulnerable fort against the attack of any disease.

Training to Relax

This is a very important subject to be taught to the students from the higher school ages. The young children cannot understand, much less follow the many ways, and it is enough for them at that stage to be taught to play and exercise. Nature knows how to give them relaxation involuntarily. If children of tender ages are seen at rest and asleep, this fact will be appreciated better. Children carry cares and worries on their sleeves but as age advances, these begin to work up and the need for the restraint, control and discipline of mind and body becomes necessary. If one is schooled for this approaching contingency, there is no need to be frightened, and the trained child will be at an advantageous position to face and master any situation as best as he could, with better hope and confidence, than his less fortunate brothers, unaccustomed to relax. The time that is spent in relaxation is time well spent, as it would refresh the mind as well as the body, inspire new life and vigour, and make life truly worth living, to enjoy the blessings of God on Earth.



Parliament of India

QUININE

* 73. *Shri S. C. Samanta* (on behalf of *Shri Barman*): (a) Will the Minister of Health be pleased to state what is the present stock of quinine in factory godowns in India?

(b) Is it a fact that just before the quinine famine of 1942, Messrs. Shaw Wallace Company was given contract to sell abroad accumulated stocks of Indian made quinine?

The Minister of Health (Rajkumari Amrit Kaur): (a) The total stocks of quinine with the Government of India and the Governments of West Bengal and Madras are about 354,830 lbs. Government have no information regarding the stocks of quinine held by private firms.

(b) No.

Shri Kamath: Is the present stock of quinine with the Government commensurate with the incidence of malaria in India?

Rajkumari Amrit Kaur: Yes, we reckon on spending about 100,000 lbs. of quinine every year and we have got over 300,000 lbs. at the moment—we have enough.

Shri Kamath: What is the rate of mortality from malaria in India?

Rajkumari Amrit Kaur: As I have stated before on the floor of this House, malaria not being a notifiable disease, it is extremely difficult to get accurate figures but a rough reckoning shows that about 2 million people die of malaria every year.

Shri B. Das: Is there any negotiation going on with the Indonesian Republican Government to supply quinine to India?

Rajkumari Amrit Kaur: No, Sir, because no imports of quinine are allowed. We produce enough for our requirements.

Shri B. Das: May I know who does not want to allow import of quinine into India? Is it the Commerce Ministry or anybody else?

Rajkumari Amrit Kaur: There is no point in importing quinine when we can increase our own production.

Shri B. Das: Our production is very, very low.

Mr. Speaker: Order, order.

(Vol. 1., No. 3.)

Madras Legislative Assembly

Treatment by Streptomycin for Tuberculosis

* 332 Q.—*Sri B. S. Murthi*: Will the Hon. the Minister for Public Health be pleased to state—

(a) whether streptomycin is used for treating tuberculosis in the Government hospitals; and

(b) whether the attention of the Government has been drawn to the warning given by the *British Medical Journal* against its use; as it causes giddiness and deafness and may even upset a patient's sense of balance permanently and, if so, what the Government propose to do in the matter?

The Hon. Dr. T. S. S. Rajan: “(a) The answer is in the affirmative.”

“(b) The Government are advised that controlled and judicious use of streptomycin where the indications warrant its use is not dangerous to life and only a small percentage of cases shows signs of giddiness, loss of balance of deafness. Even in such cases the effects are not permanent. Every care is being taken in the matter in Government institutions.”

Sri B. S. Murthi: “Is the Hon. Minister aware that an hon. Member of the Upper House has been administered streptomycin and as a result of it, he is today blind and deaf?”

The Hon. Dr. T. S. S. Rajan: “I am not aware of it, Sir. But surely streptomycin does not produce such a permanent trouble as has been referred to by my Hon. Friend.”

Begum Sultan Mir Amiruddin: “Is not streptomycin administered to tuberculosis patients in the Tambaram Sanatorium?”

The Hon. Dr. T. S. S. Rajan: “It is given to those that need it both by private practitioners and by physicians in hospitals.”

Begum Sultan Mir Amiruddin: “May I know from the Hon. Minister, who is a doctor, whether there is any other injection as efficacious as streptomycin; if so, why that should not be given to patients?”

The Hon. Dr. T. S. S. Rajan: “It is a question of comparative merit about the effect, injection produces on a disease. But so far, streptomycin seems to have the best effect.”

Sri L. N. Gopalaswami: “May I know from the Hon. Minister, Sir, whether streptomycin is a preventive or a cure?”

The Hon. Dr. T. S. S. Rajan: “It is curative, Sir.”

(Vol. XXII., No. 11.)

Health Policy :

(Extracted from H. E. the Governor's Address)

The policy of my Government is to take all possible steps to protect the health of the people, prevent the occurrence of epidemics and provide for adequate medical relief. The rapid implementation of this policy involves large expenditure and, what is even more important, the employment of large numbers of medical men who are not available. Very high priority will therefore be given to the expansion of facilities for medical education and training with a view to increase the output of medical graduates. Water-supply and sanitation being fundamental requirements in the campaign of prevention, a five-year plan of new water-supply and

drainage schemes and improvements to existing systems will be vigorously pursued as a first instalment of a plan for the provision of protected water-supply within 20 years. With the cooperation of local bodies, public institutions and individual members of the public, it is hoped, gradually to build up a scheme of public health and medical relief which will cover every part of the State and provide facilities and amenities to every citizen. In this attempt, all systems of medical relief, including our indigenous systems, will be encouraged so that medical relief of some kind or other will be available in the rural areas. In particular, primary health centres under the modern system will be opened in the rural areas to the maximum extent possible and village *Vydias* will be trained to afford safe medical relief under the indigenous system.

(Vol. 1., No. 2.)

Housing

Begum Sultan Mir Amiruddin :

"With reference to the housing problem, it is a matter of common knowledge that, apart from certain cooperative housing schemes, the Government have done nothing to ameliorate the hardships to which people are exposed for lack of accommodation. A couple of years ago, the Government appointed a Provincial Housing Committee, which made a comprehensive study of the problem. There were engineers on that committee who gave their earnest attention to the matter and as a result of their wide experience made suitable recommendations. But, I am sorry to note that the report of that committee has been shelved with the result people today continue to suffer enormous

hardships for lack of suitable habitation. No doubt, the richer classes are building houses of their own. But the Government have done very little to ameliorate the conditions of the low-paid income groups and particularly to provide housing for its low-paid employees. The Government should give its earnest attention to this matter in future.

(Vol. 1., No. 2.)

Priority to Sanitation

Sri V. Kurmayya :

"It was mentioned in the address that priority should be given to sanitation and health. Go to the villages and see where the people, especially the Harijan cheris, are located. Can you improve the sanitation of the poor when they have no food to eat, no house to live and no room to erect his own hut? I want to know whether any instructions have been given to the Local Boards and the Municipalities to have rural roads from Harijan cheris to caste peoples villages. If only Hon. Minister or a Leader has to go to the village he cannot go by car; he has to go walking in the mud and water. There should be good roads to connect the Harijan cheri with the main village. There is no use of talking about sanitation and health centres and health units. What is the use of wasting money on these centres and units and for the purchase of medicines? Let us go to the General Hospital, Tuberculosis Hospital and the Royapettah Hospital and see the conditions there. There is no place for a poor man. The man who wants to get admission should pay something. The poor man for whom the hospitals are opened and money spent on it is not benefited.

Are the Government going to rectify these things? We talk of dispensaries and the like. I must say here that the medicines supplied to these dispensaries are not properly used. The District Medical Officer has to go to the dispensaries once a year for inspection. Before the inspection by the District Medical Officer the medicine is thrown into the canals and tanks. I know many of these cases. They mark attendance for 50 people while only 10 actually attended. I must say, Sir, the officers must take interest and feel that they are there to serve the nation. So long as Government does not change the present officials it would be impossible for any Government to carry on the Government of the State in the interest of the people.

(Vol. 1., No. 2.)

Health Policy

Sri N. S. Varadachari :

"Let me take the question of Public Health to which reference has been made. This morning a very good pamphlet was put into my hands—I believe it was prepared by the Economic Adviser to Government. I hope the Hon. Finance Minister will go through it very carefully and the caricatures which reflect very good humour. Expenditure on public health is three pies per rupee, on medical accounts, nine pies in the rupee, and expenditure on food production and cattle is one pie per rupee and two pies in every rupee spent by the Government. Is this your programme? Why do you keep the public health programme so much in the forefront and yet do not spend enough money over it? You know how many avoidable diseases there are. Go to the

General Hospital and they can give you statistics of how many typhoid patients are lying on the verandahs and in the wards. Each costs a hundred rupees even if he is cured and how many people are there who are suffering from dysentery or dyspepsia or cholera, in respect of which you can take preventive action? You must have known that, in periods of drought or after excessive rainfall, you get cholera and other water-borne diseases. It will be all right if you take steps to prevent it; but you do not do it. You want to build more and more hospitals and treat people who are ill. It looks as if you make them ill and you try to treat them. Is that your policy to wait till they get ill and treat them? I wish the Leader of the House will reflect on this for a moment; is it a good policy? Why not you reverse the policy and spend more on public health and environmental sanitation and then if necessary reduce the expenditure on hospitals? Are our people so sick and emaciated as to look forward for the opening of more and more hospitals? If this is your public health policy, I say you will have to attach a hospital to every house in this country. I suggest that you must do something about it at once. You must revise your policies and your notions on public health and all schemes of public health must claim high priority.

(Vol. 1., No. 2.)

Water Supply and Drainage

Sri L. C. Pais :

"I now take water-supply schemes. We have been told more than a year ago that water-supply schemes have been sanctioned, and that so many lakhs of rupees have been

sanctioned. But I ask, why is not the scheme put into effect? I ask, why should not some work be started immediately. The public have become very sceptic about it, and the inference that is drawn is this, namely, the Government say that they want to do something, but they have not the money to carry it into effect. The same is the case with regard to the drainage schemes. In Mangalore we have got filaria. It has become endemic in form. The latest report is that 18 per cent of the people suffer from filaria. What we want is that we should be permitted to go on with the drainage scheme. The latest position is this. The Government say 'you cannot have the drainage scheme altogether; take only partial schemes if you want help; but if you want to take up the whole scheme you will have to do it yourself.' The partial schemes cost nine lakhs of rupees. I ask when are the Government going to put into effect these drainage schemes, and whether it will be possible for the Government to put into effect these schemes when they are able to spend on public health only three pies in the rupee.

(Vol. 1., No. 5.)

Health Policy

N. S. Varadachari.

"Now let me take public health. I am sorry I am taking up the time of the House, but I shall finish in five minutes. What is your Public Health Policy? It is nothing. You must split up your budget head hereafter. Medical and Public Health should not be clubbed together. The medical department figures are no doubt separated, but the control and the administration

must not be confused. Medical refers to the cure of disease; Public Health deals with the prevention of disease, wherein you can work and show progress.

"Now, what is your public health expenditure? As I told you it is just three pies in the rupee and for hospitals nine pies. It is like setting a house on fire several times and then using your nose to quench the fire. Do you want your people to get more and more disease? Is that your policy? There are cases you get in hospitals. Why not ask for figures? Typhoid, dysentery, all these are easily preventible. Your water is impure and so you get all these diseases. Your malaria again. Your environment is unsafe. It is environmental hygiene. Now, have you increased your public health expenditure? What is your policy in respect of cholera, I want to know? Every year you want to resort to inoculation whenever the epidemic bursts and everybody is attacked. You have not got the mind and you have no grip; you have lost your grip. But, I would ask you to still think over and then seek for a re-orientation of the policy in regard to preventible diseases.

"As regards rural water-supply, what is your expenditure? It is only a trifle, practically nothing at all. You have, of course, increased it slightly. Considering the cost involved, you must make some progress. Why not make progress in all directions, for instance, in the direction of development, organisation and machinery? On the other hand, you have no tendency to develop elastic revenues so that additional revenues may be flowing into the exchequer from day to day."

(Vol. 1., No. 4.)



by

A Sanitarian

I come forward to deliver a series of addresses to the youth of our country through the columns of *People's Health*. My sole aim is to instil in the minds of the youth, ideas of health and sanitation. Let me make it clear to you that it is not my intention to lay down moral principles; nor is it my idea to enter the field of politics. Incidentally, however, if references to these are made in my address, they are intended only to serve as a background. In the background of moral principles and political policies, I feel that what I have to say to you would stand out in bold relief.

The Responsibility of Youth

By now, you all know that our country is an independent one. We are now governed by the leaders of our choice. We are no longer under a foreign rule. We have heard that dependent countries had to win their independence through bloodshed. We,

in India, have won our freedom in a different way. It was a novel one. Not a drop of blood was shed in our struggle for freedom. The magician who worked this miracle was Mahatma Gandhi—the Father of our Nation. He got for us our freedom by adopting a method previously unknown. He had no use for the atom bomb. He did not handle any deadly weapon. He did not take away the life of even an ant. In his eyes, all lives were equal. In his armoury, he had only two weapons: They were *Truth* and *Non-violence*. It is the responsibility of the young to retain the freedom of our country. They should get themselves trained in such a way as to adhere to Truth and Non-violence—whatever be the difficulties to be met with. Such noble ideals cannot be attained readily without our striving hard for it. The first step towards it is the adherence in practice to the age-old saying, namely, "Cleanliness

is next to Godliness". Indeed, this was the stepping stone by which our beloved Mahatmaji reached the highest ideals which he set before himself. The success of government by the people and for the people depends largely on the training given to the young people.

Truth is God

'Truth will prevail' is an established eternal maxim. Many thinkers of both the East and West have impressed it in many ways. But there is a strong temptation to deviate from the right path of truth. Untruth, like the devil, leads the wrong way. The devil tempts one to the belief that untruth pays by prosperity, power and position; but in the long run, these are not lasting.

We see that a truthful man suffers. Gandhiji had his own share of suffering. You all know the story of *Harischandra*. Just imagine for a moment the untold sufferings to which *Harischandra* was subjected to. *Harischandra* triumphed in the end. His sufferings were all trials. Mahatmaji also triumphed in the end, despite his sufferings. He was but human like us. How then did he succeed, where many would have failed? He succeeded because truth to him was God. We please God by speaking truth. There is no greater thrill than pleasing our Creator. Gandhiji has

taught us all how we could adhere to truth and thereby attain what at first sight may seem impossible.

Non-Violence

The second great principle which Gandhiji followed was non-violence. The natural tendency is to get angry with a person, who has, in your eyes, offended you. To suppress anger is a great virtue. Even in the face of grave provocation, observance of non-violence is a greater virtue. This can be acquired by one and all. It is only a question of getting the mind trained. It can be done only when one's mind is healthy. It is only a healthy body that sustains a healthy mind. This is another age-old maxim. Our first attempt should therefore be to develop a healthy body. A healthy body can be reared only in a healthy environment. If the environment or the surroundings are unhealthy, the body becomes unhealthy; an unhealthy body harbours an unhealthy mind. It is, therefore, necessary as a first step to develop a healthy environment. We should develop it, not only in schools where the minds of the young are moulded but also in the homes in which they live. If we wish to achieve the great ideals of *Truth* and *Non-violence*, we should start improving the conditions in which we live.

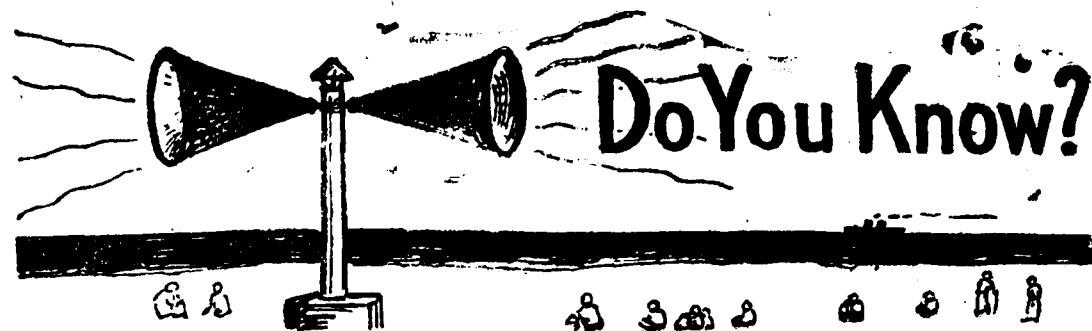


Sanitation: Its Importance

Gandhiji's name is dragged in by all and sundry. His name is verily a magic one. No wonder, therefore, that his name is brought in at every turn. The politicians quote his name to win popular applause; traders use his name to make their venture a commercial success; unscrupulous dealers use his name to get a market for commodities which Mahatmaji hated like poison. You may ask why then do I lug in his name. I have a purpose. It is to impress on you that Gandhiji was first and foremost a *bhangi* (the term means a scavenger). Gandhiji attached very great importance to sanitation. Would you believe that he went to the extent of scavenging with his own hands? A story is told of the late Gopala Krishna Gokhale. When he visited South Africa, he stayed as Gandhiji's guest. Gokhale was

accustomed to use a *commode*. *Commodies* should be cleaned and kept clean always. The cleaning should be done immediately after use. One day Gokhale was dismayed to see Gandhiji cleaning the *commode* with his own hands and putting it back. Loth to allow his good host to do such a thing, Gokhale protested. Gandhiji insisted and persisted in doing the work himself. Gokhale had to leave the house finally to seek the hospitality of a less adamant host. This shows that scavenging should not be considered as a demeaning duty and that it should not be assigned to a particular class of people who are treated sub-human. Do not run away with the impression that I want you to take up scavenging yourself. Modern sanitary science has devised methods by which scavenging as a job for inferiors. I use the word scavenging in the sense in which one human being is made to carry the excreta of others. But I do not want you look down upon scavenging as something demeaning. Just imagine for a moment what the condition of society would be if all the *bhangis* refused to do their work. The cities would be filthy cesspools. You should understand that every occupation has its own indispensable place in society. You should wean yourself away from false class notions; the *bhangi* is as great an individual as any official of State departments.

(To be continued.)



CYSTOCELE AND RECTOCELE

Q.—Are there any exercises or other methods that would be as good as an operation? What is the cause of these? Is there any danger of malignancy?

A.—Cystocele and rectocele are the result of relaxation of the muscles and other tissues supporting the vaginal wall. Usually the relaxation is the result of birth injury. It is most likely to develop in women who have had several babies or difficult labor. As the vaginal walls relax, they are pushed inward by the bladder from above, making a cystocele, and by the rectum from behind, making a rectocele. The word "cele" comes from a Greek word meaning swelling. As such, this type of swelling carries no threat of malignancy, but the possibility of chronic irritation must be recognised. There is no complete evidence that this alone causes development of cancer, but it may be an occasional factor.

There are no exercises that would be of assistance in correcting cystocele. Occasionally it is possible for the attending physician to insert some type of pessary that serves to hold back the relaxed walls, but this is not satisfactory in all cases, and, of course, does not provide the permanent

correction usually obtained through operation.

* * *

EPILEPSY

Q.—Is epilepsy inherited?

A.—Epilepsy *per se* is not inherited but a predisposition to seizures may be. This is a recessive Mendelian trait. The degree of predisposition varies for each person, according to a discussion that appeared in the *Journal of the American Medical Association*. If the sister's epilepsy is acquired, if the onset of seizures occurred in later years, if she has normal intelligence and if this is the only instance of epilepsy or migraine among the relatives, the development of epilepsy is not likely in the prospective bride. There will be even less danger of epilepsy in the children if the groom is free of a predisposition to seizures. More specific information might be gained from electroencephalograms of the woman's sister and fiancé.

* * *

NUTRITION IN EGGS

Q.—Which provides more nutrition, the yolk or white of an egg? Is it safe to give

my 5 year old child a raw egg in milk? Are hard-boiled eggs difficult to digest?

A.—The yolk of an egg provides more nutrition than does the white. In addition to its fat content, it has important minerals such as iron, phosphorus and calcium, vitamins A and D and the thiamin and riboflavin fractions of vitamin B. There is no reason why your child cannot be given a raw egg in milk if you know that digestive function is normal. Many factors may be involved, and perhaps it would be best to discuss this with your physician before acting. Raw eggs are utilized as fully as are cooked ones. A hard-cooked egg will be digested without difficulty if it is well chewed before being swallowed.

* * *

SMALLPOX VACCINATION

Q.—We are having an argument about how often and when children should be vaccinated against smallpox. Also, at what age should diphtheria vaccination be given?

A.—According to a statement that appeared on the subject of smallpox vaccination in the *Journal of the American Medical Association* recently, this can be done between the third and sixth months. It has been said that there is no condition that makes delay in vaccination advisable, and in the presence of a serious epidemic this probably can be accepted. However, if the child is not well or has a skin eruption, vaccination may be delayed temporarily. There may be other conditions in individual children that will lead the physician to adopt a different schedule. It probably

should be done at least before the end of the first year, again when the child is entering school, and a third time when elementary school is finished. Diphtheria immunization is best given when the child is nine months old, according to the discussion in the *Journal*.

* * *

CIRCUMCISION

Q.—Are babies usually circumcised at birth, or later on? Also, do most physicians think circumcision is essential if the child does not have any difficulty with the penis?

A.—Circumcision is needed when the foreskin is too long or the opening is too small to permit retraction and adequate cleansing. The best time to do the operation is about one week after birth provided the infant is in good condition. Preceding the operation it is advisable to determine the clotting time of the blood to avoid unnecessary blood loss during surgery as well as to diagnose certain abnormal blood condition.

Circumcision should not be done when the infant's general condition is poor or when there is no need shown for the operation.

* * *

ACCIDENTITIS

Q.—What is Accidentitis?

A.—Accidentitis is described by psychologists as an affliction of the emotionally unstable that makes them more liable to have accidents, either as motorists or in the home or other situations.



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

Preservation of Health—A duty

Perhaps nothing will so much hasten the time when body and mind will both be adequately cared for, as a diffusion of the belief that the preservation of health is a duty. Few seem conscious that there is such a thing as physical morality.

—Herbert Spencer.

First Conditions

You and I have many things to do in life and the first condition of doing them is to take care of health and not get ill again, which is worse than a folly, it is a sin; and the second condition is to waste no time except what is required for health.

—Jowett.

Vital Principle of Bliss

Health is the vital principle of bliss, and the exercise of health.

—James Thomson.

How to Recruit for another War?

But I must confess for the good of my native country, I would wish there might be

a suspension of physic for some years that our kingdom which has been so much exhausted by the wars, might have leave to recruit itself.

—Richard Steele.

How to Pray for Relief?

In Korea, a suppliant at the Temple of Good Fortune slept for five days and nights on the wet ground praying for relief from rheumatic pains!

—Ray Andrews.

Otherwise well!

Sydney Smith once wrote that he had gout, asthma and seven other maladies, but was otherwise very well.

Memory is not inherited

Man does not transmit a single acquired memory to his progeny. The son of the greatest mathematician does not inherit even the multiplication table.

—E. M. Marais.

Disease dependant on Consultant!

Choose your specialist and you choose your disease.

—The Westminster Gazette.

Determination!

The doctor in Moliere's *Mousan de Pourceangnae* of whom the apothecary said he was so orthodox in his treatment that he would rather die under his care than be cured by anyone else.

Good Advice.

Doctor.—(To servant of an ailing millionaire:) "Your master is decidedly better, Thomson, but yet very irritable. He musn't be thwarted."

Thomson.—"But he expresses a wish to wring my neck, Sir!"

Doctor.—Well—ah—humour him, humour him!

A Martyr

Patient.—"I get lumbago awfully badly, doctor, do you think you can do anything for me."

Doctor.—"Well, I ought to know something about it. I have been a martyr to it all my life."

If Quacks Could Cure?

Heart Specialist.—(Meeting patient whose case had pronounced hopeless a year ago) "You still alive! What confounded quack has been tinkering with you?"

Complete Rest

Doctor.—You must take complete rest. By the way, what's your occupation?

Patient.—I am an Anarchist.

Doctor.—Well then, don't throw any more bombs for a month at least.

What is Milk?

Doctor.—(To dipsomaniacal patient)—And remember no wine, beer or spirits—only a glass of milk three times a day!

Admiral.—Milk, sir, milk! Isn't that the stuff they turn into umbrella handles!

When to put Eyedrops?

Eye Doctor.—Now just drop a little of this lotion in the eye three times a day.

Old Lady.—Thankee, doctor. Before or after meals?

What to Cut?

Doctor.—I am afraid I must cut your...

Patient.—Not my appendix, doctor?

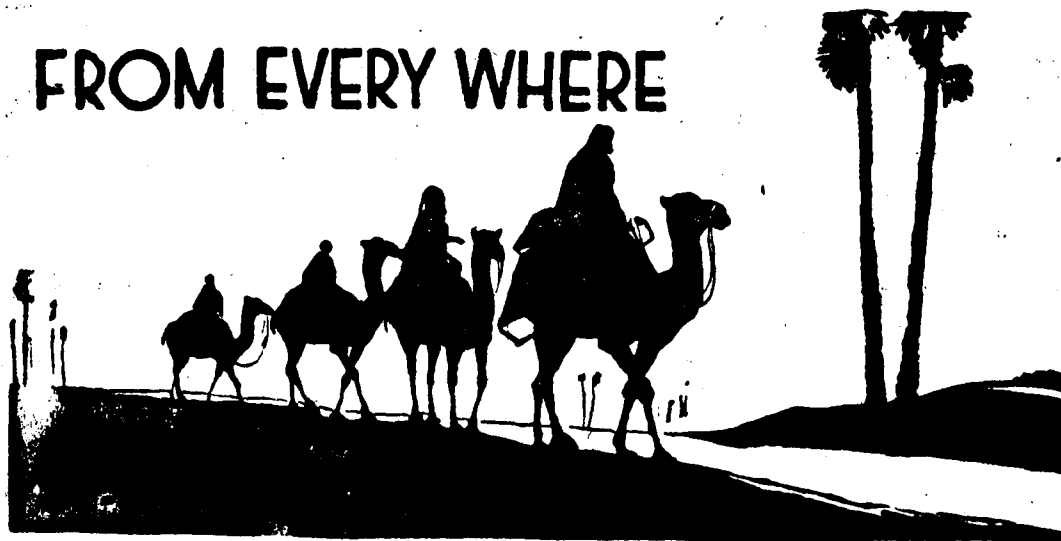
Doctor.—No, your aperitif!

In the Blood!

A book-maker, who was ill, sent his small son to tell a certain doctor to call. A different physician having arrived, the book-maker afterwards asked his son to explain.

"Well, you see, Dad," he said "there were a lot of brass plates on the doors, and when I got to the number you gave me I saw 'Consultations, 11 to 12'. The chap next door was offering 'Consultations, 10 to 1'; so I knew you'd like the one that gave you the best odds."

FROM EVERY WHERE



WHAT DO THEY SAY ABOUT IT?

Readers can contribute to this section. They are requested to send extracts of current literature which, in their view, would interest the people.—Ed., P.H.

WHICH IS BETTER MILK FOR BABIES?

At the last meeting of the American Dietetic Association, Dr. Stuart Shelton Stevenson objectively considered the relative merits of cow's milk and mother's milk as a food for babies. Though he came out for breast-feeding, he readily conceded the merit of cow's milk, indispensable in some cases.

Some physicians object to cow's milk because it consists mostly of casein. Dr. Stevenson calls attention to the studies of Drs. A. J. Mueller and W. M. Cox, Jr., which prove that babies utilize casein as well as they do lactalbumin, a simple protein found in milk. So far as protein is concerned, cow's milk is adequate.

Fat presents another problem. Small babies cannot utilise any kind adequately. The fat of human milk is no more suitable for them than that of cow's milk.

When it comes to calcium, necessary for bone formation, cow's milk contains four times as much as mother's milk. Feed a baby on mother's milk and the calcium content of its body, after the first year, falls below what it was at birth.

Because it forms large curds in the stomach of an infant, cow's milk is objected to by some physicians. But artificial feeding mixtures can be obtained in which casein forms small, soft, easily digestible curds.

It takes time and trouble to prepare artificial feeding mixtures, but less trouble than it did 30 years ago. Today, says Dr. Stevenson, it is no difficult matter at all to prepare a mixture of milk, sugar and water.

In their efforts to remain slim many mothers do not eat enough. The breast-fed child suffers in consequence. Artificial feeding meets such a case, especially if the

mother has a job which she cannot relinquish because the family needs the money.

Breast milk contains vitamin C; boiled cow's milk contains virtually none. But vitamin C can be given to an infant in various forms. So with vitamins A and D, in which cow's milk is deficient compared with mother's milk.

In the light of these facts Dr. Stevenson sees no serious objection to cow's milk as a food for babies. Yet he favours breast feeding for psychological reasons. The fondling and loving of an infant during feeding has its points. He deplores the lack of a maternal urge to nurse infants, but adds that "no one has yet demonstrated factually the long-term effects of either breast or artificial feeding upon the total personality."

—Courtesy, *Science Digest*.

MILK AND OTHER FOODS

Restaurant Personnel and Methods. A. G. Mac Nab. *Canad. Pub Health Jour.*, (Jan. 1942).

Food handlers play an important role in maintaining the health of a community. No matter how rigid an inspection the food itself has passed, it can still be contaminated if not properly handled. Systematic inspections are recommended with the inspector giving advice firmly but courteously. Personal hygiene, proper storage, refrigeration and sterilization are all extremely necessary if the community is to benefit.

—OSCAR. Egger.

—(P. H. Engng. Abstr.)

FACTS ABOUT BLOOD

Everyone knows that blood is red, but not everyone knows why this is so. In fact,

there are those who are misled into thinking that there are people whose blood is bluer than that of the rest of the world, and that the "blue-bloods" are the fortunate ones. However, if you were to prick the fingers of many different persons, you would find that the colour of the drops of blood which appeared had the same crimson hue in every case.

The reason that blood is red is because there are millions of tiny red discs floating in it. When these red blood cells are removed, the blood appears pale yellow or straw colored. The red blood cells, to give the discs their proper name, have an important function. They carry oxygen to the other cells of the body, and help to transport the carbon dioxide, formed by the body cells as a waste product, to the lungs where it is eliminated in breathing. The red colour of the blood cells is due to a protein which they contain called hæmoglobin. Hæmoglobin contains iron and when iron is lacking in the diet, the amount of hæmoglobin in the blood goes down and the person is said to be anæmic. Red blood cells are constantly being formed in the bone marrow and individual cells live for about a month. They then begin to break apart and are destroyed by other body cells, principally those in the spleen.

Not all the blood cells are red, however—some are white. The white cells are relatively few in numbers—thousands in each cubic millimeter of blood as compared to millions of red blood cells. The white blood cells belong to three distinct groups which vary in number, origin, and function. One of these groups, called the granulocytes, is distinguished by having a nucleus with

many lobes. This type of white cell is an important scavenger, and the number of them increases whenever there is an acute infection. They collect at the site of the infection and help to destroy the invading organisms.

Another group of white blood cells are the lymphocytes and are commonly found around chronic inflammations such as those caused by the tubercle bacillus. These white blood cells are formed in the spleen and lymphoid tissue such as the lymph nodes which are everywhere in the body.

The monocytes—another group of white blood cells—are the largest of the white cells. The nucleus in this type of cell is very large. Monocytes are active in attacking the germs which cause such diseases as tuberculosis, undulant fever, and syphilis.

The blood platelets which are also present in the blood are not cells since they have no central body or nucleus at any time. They are necessary for the clotting of the blood and are colourless—quite small and not very numerous.

Several parts of the body have a share in the production of blood cells and in maintaining an adequate supply of them since they are constantly being worn out and replaced with others. Among these are the bone marrow, the spleen, the liver, and the stomach. The number of cells and the amount of haemoglobin varies in different times depending upon age, diet, the amount of muscular exercise and other living conditions.

—NTA Reporter.

ANXIETY IS AN INFECTIOUS DISEASE?

Anxiety is not a disease—but it is just as catching and as hard to cure. When a tense, anxious man tries to hide his feelings,

other people "sense" what he is up against and start worrying too. In fact, it may be the tenseness of trying to hide tenseness that infects others, say Drs. Jurgen Ruesch and A. Rodney Prestwood of the University of California Medical School, in the current Archives of Neurology and Psychiatry.

A man reacting to danger (real or imagined) may express himself in three ways: anger, anxiety or fear. Anger and fear find outlets in fight and light, but anxiety is a painful in between that allows neither fight nor flight. The anxious man suffers poor circulation especially at the extremities (cold feet), his muscles are "all tightened up", his breathing is likely to become fast and shallow.

SELF-CONTROL

Some people try to compensate for their anxiety by too much eating, drinking, smoking or sexual promiscuity, say the California researches. None of these does them any good. Actually, it is hard for over-anxious people to win, no matter what they do those who practise rigid self-control in normal times are likely to break down in a crisis.

NURSERY CLUE

A clue to an effective treatment for anxiety, say the doctors, can be found in the nursery. "There is a natural impulse for normal mother to alleviate of the child by picking it up, a method which usually works." The doctors do not advocate rocking or dandling grown-ups, but they insist that an adult's need to share his anxieties, preferably with a loved one, is as great as an infant's. "The successful management of anxiety generated in daily life seems possible only through the process of sharing and communication."

Times—The Pakistan Medical Journal.

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