

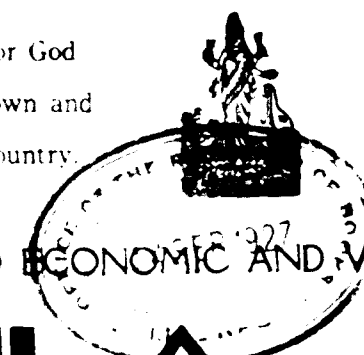
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No. 25
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(DEVOTED TO ECONOMIC AND WELFARE PROBLEMS)

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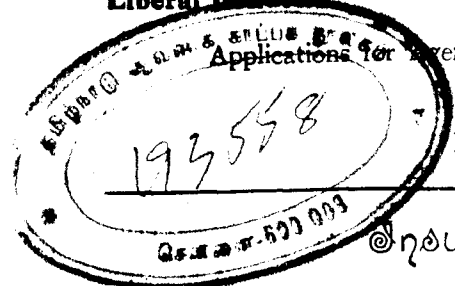
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HEALTH.

TYPHOID FEVER — (Continued.)

DISINFECTION AND FINAL PRECAUTIONS.

All infected Articles, including the clothing worn by the patient during recovery, should be immediately destroyed or disinfected in a way so careful and complete that the contagium shall have no opportunity to spread the disease in the process.

Disinfection of the Person, after recovery, consists of a thorough washing with soap and water. Under the direction of a physician an antiseptic bath may be employed; but antiseptics are, as a rule, poisons to be carefully used only as directed by a physician.

Disinfection After Death, Recovery or Removal.—After death, recovery or removal there should take place, under the supervision of the health officer, the most thorough and complete disinfection of the room and contents, in which there has been a case of typhoid fever. It is far better for the community and cheaper for the board of health to pay a competent man to see that this is properly done than to take the risk of its not being well done.

Bodies of Those Dead From Typhoid Fever should be wrapped in cloth wet with zinc solution made in proportions of one-half pound of chloride of zinc to one gallon of water; or water one gallon, sulphate of zinc eight ounces, common salt four ounces.

No public funeral should be held in a house where there is or has recently been a case of typhoid fever until after the room or rooms occupied by the patient shall have been thoroughly disinfected. Dwellings which have been vacated because of an outbreak of typhoid fever should be used again only after effective disinfection.

HOW TO DISINFECT.

Preparation of room and contents for disinfection.—All openings into the room should be closed, excepting the door. If there are any cracks, or open spaces, keyholes or stovepipe holes, paste over with strips of cloth or paper. Clothing, bed covers, etc., should be removed from the bed and hung on lines stretched across the room. Mattresses and pillows opened and contents exposed. All drawers, chests or trunks in the room should be opened, contents removed and spread out on the floor. Germs have been known to remain for some time in the clothing, especially if woollen and packed away in drawers or trunks. Therefore great care should be taken to spread out as much as possible all clothing, turning the pockets inside out; to expose as great a surface as possible of the bedding to the disinfectant. Cotton, linen, flannels, blankets, etc., should be treated with the boiling hot water, introducing them piece by piece, securing thorough wetting and boiling for at least half an hour. Heavy woollen clothing, silks, furs, stuffed bed covers, beds and other articles which

cannot be boiled should be hung in the room during fumigation, pockets being turned inside out and the whole garment being thoroughly exposed. Afterwards they should be hung in the open air, beaten and shaken. Carpets are best fumigated on the floor, but should afterwards be removed to the open air and thoroughly beaten. Pillows, beds, stuffed mattresses, upholstered furniture, etc., after being disinfected on the outside, may be cut open and their contents again exposed to formaldehyde gas. In no case should the thorough disinfection of clothing, bedding, etc., be omitted. Infected clothing and bedding have been known to communicate typhoid fever some time after their infection.

When disinfectant is placed in the room, close the door, seal up any cracks or openings around it, and leave the room closed from four to six hours.

After sufficient time has elapsed, open all windows and doors, allowing free circulation of air for an hour or two. If weather will permit, remove all articles out into the sunshine.

Formaldehyde—Disinfection of rooms by formaldehyde (formalin) is accomplished in four ways—

(1) By the distillation into the rooms of a forty per cent. solution, in the proportion of not less than eight ounces of formalin for each one thousand cubic feet of air space.

(2) By the addition of the solution of formaldehyde to permanganate of potash, in the proportion of about five ounces of permanganate to ten ounces of a forty per cent. solution of formaldehyde for each one thousand cubic feet of air space, rapid chemical action is set up and formaldehyde gas evolved in a very short space of time. A tin vessel with tall sides is necessary to prevent the materials running over the sides during the process.

(3) By sprinkling a forty per cent. solution of formaldehyde on sheets hung on lines within the rooms, using not less than ten ounces for each one thousand cubic feet of air space. A sheet five feet by seven feet will hold about five ounces of formalin without dripping. This necessitates the use of at least two sheets, as far apart as possible, for the disinfection of each ordinary room.

(4) By volatilization in the rooms of solidified formaldehyde (paraform), in the proportion of not less than two ounces for each one thousand cubic feet of air space.

In determining the amount of disinfectant of any kind to be used, the tightness of the room, the amount of surface to be covered, and the amount of penetration to be desired, should be carefully considered. The bed-room or room occupied by the patient while sick, together with its contents, requires a larger amount of disinfectant than do the other rooms of the house, and it would be well to increase the amount of disinfectant, at least one-half, to be used in the bed-room.

In the use of formaldehyde for aerial disinfection, to secure the best results, a temperature of not less than 65° Fahr., and a moist condition in the rooms, is usually considered desirable. Sprinkling the floors and, where it can be done without injury, the walls of rooms with water just before fumigation is an easy method of securing such a condition of humidity.

After fumigation, washing of the wood-work with a $\frac{1}{1000}$ solution of corrosive sublimate (one dram corrosive sublimate to one gallon of water), and the boiling and subsequent washing of all articles that can be so treated, is recommended.

PLAGUE CATECHISM.

Question.—Do you know the havoc played by plague in India?

Answer.—There were 10½ million deaths from plague in India in 22 years (1898—1920). The provinces, which suffered worst were—

- (1) Punjab with a population of 24½ millions had nearly 3½ million deaths from plague;
- (2) United Provinces with a population of 48½ millions had nearly 3 million deaths from plague;
- (3) Bombay with a population of 26½ millions had nearly 2½ million deaths from plague.

The province, which suffered least, is Bengal; with a population of 46½ millions, it had 69,428 deaths in 22 years and for this reason it is necessary to take urgent measures to keep the province plague free.

Question.—When and where did plague break out first in India?

Answer.—In August 1896 at Bombay.

Question.—How many severe epidemics have there been in India since it broke out first in 1896?

Answer.—Four such epidemics—

- (1) 1903-04, deaths 1,138,451.
- (2) 1904-05, " 1,328,249.
- (3) 1906-07, " 1,286,513.
- (4) 1917-18, " 820,292.

Question.—In what seasons of the year does the maximum number of plague deaths occur?

Answer.—In Bombay October, in the Central Provinces February, in the United Provinces March and in the Punjab April. The least number of plague deaths occurs in June and July.

Question.—What is plague?

Answer.—Plague is a communicable epidemic disease caused by the plague germ and characterized by high fever, thirst, delirium, swelling of glands in armpits and groins; in the majority of cases, it runs a rapid course; the organism of plague is found in glands, organs and blood and it has a very high mortality. Sometimes this germ affects the lungs and then it is called pneumonic plague, which is very infectious, as the sputum contains

germs. If only glands or buboes are affected, then it is called bubonic plague.

Question.—How is the plague germ carried to human beings?

Answer.—Generally by rat fleas, which get infected from rats suffering from plague and as the rat dies, they leave its cold body, crawl up to the living beings near by and inject the poisonous plague germs which are rubbed into the skin by the person bitten to soothe the irritation produced and these germs multiply very quickly and in two or three days the person develops fever. Plague germs sometimes get access to human beings from dirt or the body of the rat or in the faeces of the fleas.

Question.—What is a plague germ?

Answer.—It is a tiny body $\frac{1}{1000}$ th of an inch in length and can only be seen under a high power of the microscope. Plague germs can live a long time in dark wet places at 15°C. but die very quickly (2-3 hours) when exposed to the hot sun.

Question.—What is a rat flea?

Answer.—It is an insect, the size of a pin's head, bright coloured, loves the dark and is very sensitive to light; at first, looks like the human flea. Rat fleas cannot travel long distances by themselves unless carried in clothes, grains and other articles or by rats. Twenty or thirty yards is a long enough distance for such fleas.

Question.—What is the first thing to be noticed before an outbreak of plague epidemic?

Answer.—Rats usually die 10 or 15 days before human beings are attacked and rats leave the infected area as soon as possible unless a person comes from another place already infected with plague.

Question.—What are the symptoms of bubonic plague?

Answer.—The first symptoms appear quite suddenly (especially in the beginning of an epidemic), but sometimes they are gradual in coming (3 to 5 days) and are nervous in character, e.g., headache, giddiness and disinclination to work; these may or may not be accompanied by fever but when there is fever, thirst, delirium passing into unconsciousness and death within 2 to 4 days. Swelling of glands appears generally on the second or third day of fever but sometimes it is the first symptom noticed, a piercing pain in the glands which are very painful to touch. The temperature may go up to 106° and the longer the patient lives, the greater is the chance of his recovery, especially if the bubo bursts. Generally, the size of the bubo is small, like that of an almond or walnut.

Question.—Can plague be transmitted directly from one person to another?

Answer.—No, except in cases of pneumonic plague (from sputum and cough) and pus from buboes bursting. Rat fleas may get infected from plague patients' blood or urine and then infect other persons.

Question.—Do persons suffering from plague recover?

Answer.—Yes, 30 to 40 per cent. recover in cases of bubonic plague, if properly treated, but none from pneumonic plague.

Question.—What is the treatment of plague?

Answer.—Open air, good nursing and a lot of water to drink and symptomatic treatment, as advised by the doctor attending the patient. Patients suffering from plague can be treated at a general hospital and should be taken there as soon as possible.

Question.—What are the preventive measures during a plague epidemic?

Answer.—Most of such measures can be guessed by the character of plague germs and rat fleas. First and foremost is **inoculation**, which produces only slight fever and inconvenience for two days and gives protection against plague for one year.

(b) To expose all articles of clothing and furniture in the house to the hot sun for three hours daily, as it will kill all flea and plague germs.

(c) To spray with equal parts of kerosene and water the dark corners and floors of the rooms and to lime wash the walls.

(d) Sulphur should be burnt in rooms which can be hermetically closed.

(e) To let in as much as possible of sun and light by keeping the doors and windows open during the day and thus keeping the rooms dry.

(f) If means and circumstances permit, evacuation of the house and removal from the infected locality may be carried out till the epidemic is over.

(g) Dead rats should not be touched without dipping their bodies in kerosene.

(h) The hands and feet should be protected from bites of rat fleas.

Question.—What are the preventive measures to be taken before the plague epidemic breaks out?

Answer.—(1) Systematic anti-rat campaign.

(2) Improvement of the sanitary conditions of the drains.

(a) Anti-rat campaign can only be done by co-operation of the whole locality or town and winning the confidence of the public by giving illustrated lectures or personal explanation.

(b) Such a campaign, if taken up, should be carried on continuously year after year and systematically if good results are wanted to be seen from it.

(c) Protect all grain, foodstuffs and water from rats.

(d) Make baits by using barium carbonate with three pounds of flour in the proportion of one to three; the lethal dose for a rat is three grains only. When carried out on a large scale, an account should be kept of baits distributed and those taken by rats.

(e) Whenever any rats die, they should be examined for plague microscopically if possible and such rats dying by themselves

should not be touched without dipping them in kerosene for 15 minutes.

(f) Grain godowns should be made rat proof if possible and raised on plinths 3 feet high as a rat can jump $2\frac{1}{2}$ feet. Where means do not allow, you may keep a cat, but make a hole in the door high enough to let her in and out and do not over feed her.

Question.—Do you know the habits of rats?

Answer.—Yes, they are very cunning animals; destructive in their habits; when two months old, they begin to get young ones and if given enough food and shelter, one pair will turn out to be 80 pairs at the end of a year.

HEALTH.

NOTE UPON COVERING BY WATER OR FLOODING AS A METHOD OF ANTI-MALARIAL SANITATION.

THE article on malaria in Hirsch's Handbook of Geographical and Historical Pathology, when discussing the effect of floods upon the prevalence of the disease, remarks upon:—

"The fact that, when the water is high and the ground completely covered by it, the endemic or epidemic disappears, fresh cases of the disease appearing only after the water has run off and the surface of the country has been laid bare. Classical examples of this are furnished by the malarious regions periodically inundated on the banks of the Nile, Indus, Euphrates, Ganges, Senegal, Niger, Mississippi and other rivers where the endemic always begins after the waters have begun to subside. There is another illustration of the fact in those rice-fields in India which are always under water, and, as Annesley remarks, are the least dangerous to health. Experience also in Turkey (Sandwith), in Sardinia (Moris), at several places in the Southern States of the Union (Nott), in England (Royston) and elsewhere, proves that the complete flooding of marshy, ground, and the filling up of standing pools, ditches, and the like causes the endemic to disappear as certainly as if they had been dried up."

More recently, Deadrick in his textbook on "The study of Malaria" (1910) gives the following example of the effect of floods upon malaria:—

"The primary effect of the submerging of land, while the water is high, is to diminish malaria."

A remarkable example which illustrates this occurred in Holland in 1748. The Dutch allowed the land, for defensive purposes, to become overflowed. Peace being concluded during the middle of the summer, the inundation was caused to subside, whereupon a serious outbreak of malaria occurred. The epidemic was not successfully combated until the land was again submerged and kept so until the advent of winter. The effect upon malaria of inundations is almost yearly observed in the valleys of the Nile, of the Mississippi, and of other large streams."

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Wealth & Welfare.

Lucknow, Friday, 17th June, 1927.

EDITORIAL.

PAY FOR INEFFICIENT MANAGEMENT?

"Hope is a flatterer; but she frequents the poor man's hut as well as the palace". The Tariff Board appointed to enquire into the Cotton Textile Industry in dealing with the economics of the mill industry forgot this maxim and are of opinion that the case for 'a small all round increase in the import duty is strengthened by the undoubted temporary handicap imposed on the industry by stabilisation of the rupee at 1 sh. 6 d.' The Board's proposals "Modest scheme of State Help"—involve either additional expenditure or loss of revenue to the State. These two forms of state aid are estimated to cost nearly Four

Crores and a Half rupees. The funds required to meet the cost which involves expenditure and loss of revenue is recommended to be raised by a small additional import duty of four per cent for the period of three years on all cotton manufactures other than yarn. Already the existing price of cotton goods is felt burdensome by the consumers and a slight of rise of prices will not be calculated to stimulate consumption. This will amount to calling on those outside the ranks of the class directly interested in the mill industry to 'pay for inefficient management'. "Hero worship is strongest where there is least regard for human freedom". The Tariff Board, from the point of view of public benefit must be stated to have adopted the policy of hero worship. Rs. 1,500,000 appears to be the cost of this Hero Worship! The recommendations of the Tariff Board will only encourage the wreckless manner the dividends are paid by Bombay Mills and companies and also gambling in shares which reacts very unfavourably on the cotton industry as a whole. The company promoters and share brokers and the mania to get rich-quick have been not a little responsible for the over capitalisation and the consequent sufferings of the cotton industry. Nothing has been done or suggested to put down the evils of an autocratic hereditary monarchy, viz., 'the managing agency system'. Though the Tariff Board observes that it is not quite satisfied with this system, it recommends tolerating this evil, because it thinks it cannot be avoided. This seems to be a case of the blind leading the blind. The Bombay mill industry requires to be reformed in the matter of the economy of management, the payment of remuneration to the managing agents, the management being in the hands of a person trained in the technique of the mill industry, the method of financing the industry, the internal organisation of the industry, the improvement of the machinery on economic and up to date lines. The Government should not allow the consumers to pay for the extravagance and the mismanagement of the Bombay Mills and speculators. It is the duty of the Government to provide technical and scientific assistance, train up the personnel both on the technical and business side for running the industry, facilitate and subsidise cheap transport and render all possible help for the exporting market of the country and watch all the developments in the market to put down the appearance of rivals who would try to perpetuate the long spell of adversity of this cotton industry. The Govt. of India should above all come to the support of this industry which has defects in its organisation and working which are serious and of the need for removing which no one is more conscious than those in India. Self-interest should not take precedence of the interests of others. It is the prerogative of the Indians to ask for unbiased judgment in this matter when active participants attempt to usurp the function of the Government. The interests of Economic India will be rarely served jeopardising certainly the cause of peace and amity. In their laudable anxiety to keep up the interests of the world market, the Govt. of India should not betray themselves into injustice to the Indian cotton industry and the consumers. If any country has a right to complain of neglect and indifference to industries, it is India and not others. Will the Govt. of India note and save the consumers from the clutches of the heroes and exploiters?

CHOLERA PERIL.

Cholera is levying a very heavy toll on human lives. This appalling mortality is preventable, and can easily be checked by the application of the scientific knowledge at our disposal which consists in inoculating people with a specially prepared vaccine. Inoculation against cholera was first introduced by Ferran in Spain in 1883, but owing to defect in the preparation of the cultures of the cholera bacilli from which the vaccine was made the results were not encouraging. In 1893 Professor Haffkine, after elaborate experiments on the lower animals, commenced a system of anti-cholera vaccinations, and between 1893 and 1896 the doctor and his assistants performed no less than 70,000 anti-cholera inoculations in Bengal and Assam. Of these Dr. Haffkine himself inoculated about 8,000 persons in Calcutta and the results were very encouraging as in no instance did any untoward effect result. In a series of 1,056 persons,

of whom only 402 were inoculated and 654 not so treated, Dr. Haffkine observed that there were only 83 deaths from cholera of which 12 occurred among the inoculated and 71 among the non-inoculated. But 5 of the 12 cases occurred within four days of being inoculated, only one other death occurring among them during the first year after inoculation, whereas six more deaths occurred in the second year. The conclusion therefore arrived at, as the result of observations by Dr. Haffkine was that this measure was effective in reducing the mortality from cholera by at least 72 per cent. It may be observed that an intensive application of the anti-cholera inoculation has succeeded in stamping out the disease from Java (by the Dutch) from Korea (by the Japanese), and that the Americans have nearly succeeded in driving it out of the Philippines. The French

have also done a good deal in the same direction in Indo-China and the Siamese are also employing the same method with striking success. It is really a matter for considerable surprise that the anti-cholera inoculations have not yet found much favour with the people of India which has lost over several millions of its population from cholera within the last fifteen years. The people of India have been very slow to take advantage of the measure to insure their lives against cholera, although they suffer severely from this fell disease. The statistics available show the immense value of inoculation as a means of preventing cholera and it is hoped that the people will lose no time in availing themselves of this method of protection against the dreaded disease.

ON THE LINE.

SUGAR FROM JAVA.

According to the figures made available by the Chamber of Commerce, Batavia, the exports of all qualities of centrifugal sugar from Java during the month of March, 1927, amounted to 94,331 tons (of 1,000 Kilogrammes) against 39,298 tons during the corresponding month of 1926 and 68,579 tons in March, 1925. The total exports for the first three months, January to March, 1927, amounted to 269,186 tons of which 175,132 tons came to British India; 32,912 tons went to Japan; 21,890 tons to Hongkong; 14,926 to Singapore; 7,127 tons to China; and 7,033 tons to Penang.

According to the usual calculation, stocks of sugar in Java on 1st April, 1927 were estimated at 102,249 tons as against 80,663 tons on the same date in 1926 and 32,946 tons on the corresponding date of 1925. It is however opined that the figure of consumption of sugar in the Dutch East Indies for the current year is higher than the figure of roughly 17,000 metric tons per month calculated on the basis of the consumption of sugar for the last statistical year. The stocks of sugar on 1st April, 1927, may therefore be estimated at dearer 65,000 tons, leaving roughly 45,000 tons available for export after deducting Java consumption for the month of April 1927.

COFFEE CROPS IN MALNAD.

The Government of Mysore have appointed a committee consisting of the following gentlemen to formulate proposals about financing coffee crops in the Malnad and submit the same for the consideration of Government:—

Mr. C. Ranganatha Rao Sahib Convenor, Messrs. G. H. Krumbiegel, R. Ranga Rao, K. H. Ramayya, G. B. Heblikar, S. Venkatesaiya, P. W. O'Brien, Javali Ganesha, Rao Chendra Gowda, Hanumanthappa and Mulle Gowda.

Mr. R. Ananthasubramanayam, Secretary to the Board of Industries and Commerce, will act as Secretary to the Committee.

JOINT STOCK COMPANIES.

During the month of March 1927, 47 companies were registered with an authorised capital of Rs. 1.38 lakhs, to which the Punjab contributed Rs. 57 lakhs, or 41 per cent. and Bengal Rs. 55 lakhs, or 40 per cent. of the total. In the corresponding month of the preceding year, i.e., in March, 1926, 50 companies were registered with an authorised capital of Rs. 1.66 lakhs. The largest flotation was the Punjab Pulp and Paper Mills, Punjab, with an authorised capital of Rs. 50 lakhs. During the twelve months, April, 1926, to March, 1927, the number of companies registered was 537 with an authorised capital of Rs. 19 crores, as against 473 companies with Rs. 30 crores of authorised capital in the preceding year.

In the year 1926-27, the number of companies registered increased by 14 per cent. and the authorised capital decreased by 36 per cent. as compared with 1925-26. The increases in the authorised capital were noticeable under the following heads:—Banking Companies (+Rs. 1.09), Loan (Rs. 51 lakhs), Investment and Trusts (+Rs. 2.82 lakhs), Paper Mills (+Rs. 50 lakhs).

There were on the other hand, decreases under Planting Companies (—Rs. 9.90 lakhs), Mining and Quarrying (—Rs. 51 lakhs) and Estate, Land and Building (—Rs. 506 lakhs).

Twenty-nine companies, limited by shares, with authorised capital of Rs. 1.07 lakhs, having ceased work, went into liquidation or were finally dissolved during the month of March, 1927, and 276 companies with authorised capital of Rs. 23.82 lakhs during the year 1926-27.

Five companies with an authorised capital of Rs. 12 lakhs that were in liquidation before 1st March, 1927, were finally dissolved during this month.

There was a net decrease of Rs. 24 lakhs in the authorised capital of existing joint stock companies limited by shares in India in the month of March, 1927, and a net decrease of Rs. 2.11 lakhs during the 12 months, April, 1926, to March, 1927.

STATE RAILWAYS' EARNINGS.

The total approximate gross earnings of all State-owned Railways for the week ending the 7th May, 1927, amounted to Rs. 2.02 lakhs, Rs. 4 lakhs less than the figures for the last week but Rs. 11 lakhs more than the figures for the corresponding week of the previous year. The total approximate gross earnings up to 7th May, 1927, amounted to Rs. 10.78 crores or Rs. 49 lakhs more than the figures for the corresponding period of the previous year.

The following are the up-to-date approximate gross earnings of the principal State-owned railways as compared with the last year:—

Railways.	Up to 7th May, 1926 (In lakhs of Rs.)	Up to 7th May, 1927 (In lakhs of Rs.)	More or Less— (In lakhs of Rs.)
A. B.	15	17	+2
B.N.	88	97	+9
B.B. & C.I.	129	129	+3
Burma	55	56	+1
E.B.	50	66	+16
E.I.	202	224	+22
G.I.P.	163	159	—4
M. & S. M.	92	86	—6
N.W.	155	158	+3
S.I.	57	57	...

A comparison with the figures of the previous week shows decreases in the approximate gross earnings of all railways except the Bombay, Baroda and Central India, Madras and Southern Mahratta and South Indian.

Compared with the figures of the corresponding week of 1926, all railways, except the Great Indian Peninsula, Madras and Southern Mahratta and North Western, show increases in their approximate gross earnings. The principal increases were:—

East Indian Railway ... 5 lakhs, due to increase in earnings from 3rd class traffic coal and general merchandise.

Eastern Bengal Railway ... 2½ lakhs, chiefly due to an increase in jute traffic.

INDIAN RAILWAY ROLLING STOCK.

It is highly improbable that further orders for new rolling stock will be placed by Indian Railways in the near future; recent investigations, indeed, revealing, as the outcome of various improvements in the handling of traffic, the existence of a small surplus. This situation does not, as some critics suggest, say a correspondent in the "Times" imply excessive purchases in the recent past, but is partly the result of the temporary contraction in trade, and, to a still greater extent, is the consequence of the early maturity of various co-ordinated schemes for utilizing rolling stock in a more economical manner. One need only mention among such improvements the doubling of lines, the improvement of marshalling yards, the strengthening of bridges, the higher standards of efficiency in railway workshops, &c.

On one line, mentioned by the Chief Commissioner, the speed of repairs has reduced the number of wagons in the workshops at any one time by 6 per cent., and this process of improvement continues and reflects the highest credit on the Railway Board and on the railway administration concerned. Again, as the result of the strengthening of bridges and tracks, it has been possible to utilize heavier locomotives drawing heavier and higher capacity wagons and travelling at higher speeds.

The reserve of wagons, as calculated by the Railway Board, does not exceed 5,000; nevertheless, the result has been to impose a sharp check on new orders and as a consequence to set even narrower limits than previously upon the rate of development of the wagon-building industry in this country. The local works, however will undoubtedly receive preferential consideration when further supplies become necessary. Moreover, with railway extension now working up to an average of 1,000 miles of new line per annum. With large new irrigation works rapidly approaching maturity, with coal production and export reviving, and with additional steel works in prospect, it is palpable that railway traffic must show continuous expansion, which must, sooner or later, be reflected in the placing of new orders for rolling stock, first in this country to the full extent of local manufacturing capacity, and secondly in Great Britain.

—(D.E.)

BANGALORE-HOSUR RAILWAYS.

Regarding the linking of Bangalore with Hosur in Salem District a rough survey of this project was made so long ago as 1913, but as a result of recent detailed survey, it has now been finally decided to embody the scheme in the programme of construction work for the year 1928-29. The line will be narrow gauge beginning at the City Junction and passing between

to hills, behind the Mount Joy, as it crosses the Frontier.

MYSORE RAILWAYS.

The attention of the Government of Mysore has been drawn to a letter by Mr. G. R. Josyer M.A., under the heading 'The Railway Agency' published in the Mysore Patriot dated 10th instant and a few other local papers. As the letter contains statements of an inaccurate and misleading nature, the following facts are published for general information:—

Mr. A. A. Khan was appointed Traffic Manager, Mysore Railways on 6th June 1922 on a pay of Rs. 1000-100-1200 per mensem. One of the conditions attaching to his appointment was that he would be appointed Agent in succession to Mr. C. Dove Wilson on the later's retirement from the Mysore service. According to this understanding, Mr. Khan was to have been promoted as Agent in April of last year when Mr. Dove-Wilson's term of office expired. But at the special request of Government Mr. Dove Wilson agreed to stay on for a year longer. When his extended term expired last month, Mr. Khan was appointed to succeed him.

Mr. Khan, under present arrangements, is not only Agent but also Secretary to Government for Railways and Traffic Manager and draws a consolidated pay of Rs. 1,800 per month. His salary as Traffic Manager was Rs. 1,500 per mensem. Previous to April 1927, there was a whole-time Agent and Secretary to Government on a pay of Rs. 2,000 per mensem and a Traffic Manager on Rs. 1,500 per mensem. The new arrangement has resulted in a distinct saving to Government of about Rs. 20,000 per annum.

SLOW SPEED.

B & N. W. Railway is shortly to introduce two fast trains with a few stoppages between Gorakhpur and Lucknow. For such introduction, over due for a long time and for the first time after the establishment of this railway more than half a century ago, the public should thank Mr. Miller, the agent and other officials of the said railway.

But the speed of other trains requires their serious attention for many of their trains run more slowly than those on the narrow gauge railways, and to prove this, we refer to the time tables of various railways and, for ready reference, the following examples will do:—

Nos. 1 Up and 2 Down mixed trains of Delhi-Shahadra-Saharanpur Light Railway with a distance of 92½ miles take 7 hours and 35 minutes between Shahadra and Saharanpur, while Nos. 121 Up and 32 Down mixed trains between Muzaffarpur and Sathi with a distance of 93 miles on the

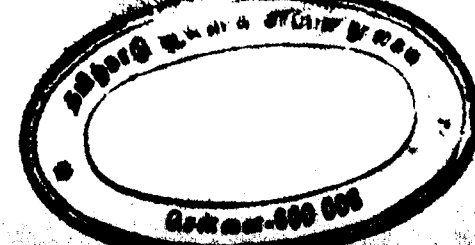
B. & N. W. Ry. take 10-29 and 8-57 hours respectively.

Nos. 1 Up, 3 Up, 2 Down and 4 Down mixed trains of Arrah-Sasaram Light Railway take 4-58, 5-7, 4-47 and 5-14 hours respectively between Arrah and Sasaram with a distance of 61 miles while Nos. 25 Up, 26 Down and 30 Down mixed trains of B. & N. W. Ry. take 5-11, 5-10, 5-35 and 5-10 hours respectively between Darbhanga and Bargania with same distance.

Notwithstanding the fact that the B. & N. W. Railway is a metre gauge Railway and the engines are stronger, the speed of trains is slower, as is proved from the above extract of the time tables, than those of light railways.

LABOURERS AND VIOLENCE:

The Indian Trade Union Act has just come into operation. It is said that the Government are to bring a machinery into existence for settling the disputes between employers and labour. The labour situation in India and especially in South India at present has been developing ugly aspects threatening the peace and the tranquillity of several localities. We are surprised that some of the dailies should only choose to support the politicians that exploit the labour, certainly not in their (labour) interests alone. It is a grave and unwise step for the labour to be misguided in their own interests. The standard of efficiency and living is very low in South Indian Labour. It is very necessary that the labour should be organised on co-operative methods. It is very uncharitable in the economic interests of the country to do anything which is likely to embitter the feelings of the workers or make them wrongly feel that there employers are treating them unjustly. Even in those cases where wrong treatment has been accorded by the employers to the workers, the communal self-interested politicians that are to be last persons to be the advisers or the leaders of the labour movement. Only those that are above party and communal politics that should attempt to be called labour workers and their watchword should be "co-operation" The labour as it is today in India requires to be educated on methods of absolute co-operation in the real sense. Their platform should not recognise communal and party politics. Is it possible to expect the party and communal politicians to forget their differences among themselves before they can be allowed to interfere with the labour? Are not such people only lawyers with their own brief interested in their own clients? The economic India of today considers the present action of the so called labour leaders extremely ill-advised in injecting the party and communal politics into the veins of pure and innocent labour. Incitement of labourers to violence is the worst crime that anyone can perpetrate on economic India. Politics also form part of the life of the labour, but not for the Indian labour as situated today. The



Government will not swerve from the path of justice if they should make the organisation of labour as a part of the work of the co-operative department atleast for some years till the labour is properly educated and organised so as to be able to understand what is good for them and what is not. The labourer as he is today takes it for granted that every one that poses to work for his cause is a sincere well wisher of his and is easily led into the mire of unwanted strikes. We dare say, as we know in very many cases, strikes were manipulated more to suit the purpose of the self-interested communal or party politicians and the unemployeds than for the real welfare of the labour. We cannot also deny the fact that some of the employers owing to their tactless or greedy habits drive the labour to the camp of the exploiters. Only those that believe in bringing the labour together and building mutual respect and regard between the employer and the employee that ought to take part in the work of the labour movement. The employer ought to pity the miserable and ignorant position of the labourer today and come forward even with a little sacrifice to save the labour from exploitations of the party and communal leaders. Here lies the field of good work for non-official co-operators on non-political basis. We consider that it is the duty of every true journalist not to widen the gulf between the employer and the employee in the interests of Economic India.

THE MYSORE SILVER JUBILEE.

We see several meetings being held both in and outside the Mysore State to concert measures for celebrating the Silver Jubilee of H.H. The Maharajah of Mysore. The memorial is being talked of in the shape of Rupees, annas and pies only. May we not suggest that His Highness's subjects should create memorials in the form of sacrifice also? H. H. The Maharajah is said to be a Rajarishi and it will only be fitting that the memorial should take the form of sacrifice first. Sacrifice may be in several ways. Avoiding costly and showy dress (even for clerks), liquor habits, extravagant living, etc. On the part of the Government of Mysore and its officials, greater sacrifice is required in the matter of the advertisement and show of the efficient administration. The Government should not entertain in service men or women who are ambitious to lead a showy and extravagant life. Without

sufficient means within, such a life only encourages one to lead a dishonest and highly immoral life. If only advantage is taken of this opportunity of the Silver Jubilee to make these sacrifices, the greatest reverence to the ruler and the ruled would have been done. It will please God under whose Grace a Royal Saint has been bestowed on Mysore, to see that such real sacrifice is made and which will be the best memorial to commemorate and perpetuate the glorious reign of His Highness. Otherwise it will be mockery to leave a marble statue of the Rajah Rishi only to be witnessing for ever the growing uneconomic, luxurious and vicious life that the citizens would be leading. Certainly this suggestion will be unwelcome to those in possession of power, wealth and show. But Truth is Truth and must be spoken out clearly and deliberately. All Honour to His Highness.

EDUCATE THE AGRICULTURISTS.

Wealth is power-both in individuals and in nations. In the individual it is the power to do good and also to resist evil. In proper hands it is a source of good both to the individual and the country. Imagine all the good that the possessor of wealth can accomplish—the bounties which he will bestow in the channels where they are most deserved, the poverty which he may succour, the sick beds to which he may carry consolation and the humble virtue which he may seek out in lowly huts and retired cottages for the purpose of rewarding it. It blesseth him that gives and him that takes. In improper hands wealth is a source of evil to the possessor by being an incentive to vices and crimes and react perniciously on society. It damns the possessor and does serious damage to society. The wealth of a nation varies directly in proportion to its industrial prosperity. India is mainly an agricultural country and it is a recognised fact that the prosperity of India depends upon the advancement of agriculture. The Government are not unmindful of the importance of the development of agriculture in this country and are adopting measures towards this end. But the adequacy or otherwise of these measures is a matter on which opinion is greatly divided. Several young men are trained in agricultural colleges and acquire some knowledge of improved methods of agriculture and many of them are employed by Government as agricultural demonstrators in the several districts. But unless the knowledge which these functionaries have acquired which is very often little

carried home to the ryot people and the latter are brought into closer contact with the functionaries of the department, there is little chance of any appreciable effect being produced by the scions of the agricultural department. This can only be achieved by enabling the subordinates of the department to visit the villages frequently and instruct the ryot as to the improved methods of ploughing, manuring, sowing and transplanting. It should also be made the duty of the subordinates to bring to the notice of the ryots concerned any special localities which by virtue of the composition of the soil and the facilities of irrigation and drainage are specially suited for intensive cultivation or for raising special crops such as sugar cane betels, turmeric, etc. The ryots in villages are at the present moment extremely orthodox as to the method of cultivation and the kind of crop they would raise on their lands and would not easily change them except for very strongly cogent and convincing grounds. The task of educating the cultivating masses in the art of improved methods of agriculture is not, therefore, an easy task specially with the limited funds which the Government could vote for agriculture and with the handful of men they have employed for the purpose. It is the primary duty of Government to devote much greater attention to propaganda work in order to induce a wider adoption of improved methods of agriculture and to impress on people the valuable results in the shape of richer crops which could be achieved by the adoption of the manure adapted to the composition of the various kinds and sorts of soils in the several villages. A free dissemination of knowledge regarding agriculture is thus absolutely necessary for the development of the industry on which mainly depends the material prosperity of India and if this proposition is accepted, the Madras Government have no reason to congratulate themselves on the steps they have taken to achieve this end. In agriculture as in other branches of industry there is visible on the part of the Madras Presidency to be far behind her sister presidencies and it is passing strange that the representatives of the people who are the guiding stars of the department of agriculture have not the circumspection to study what is being done in other presidencies in this most important matter. In Bengal a scheme for the introduction of agricultural education in High and Middle schools has recently been sanctioned on the lines of the instruction already given in the Punjab. Will not Madras make up and atleast follow precedent?

Health.—Continued from page 4.

Many other authorities also have called attention to very similar facts. For example, Davidson states that :—

"In some marshy countries a heavy rainfall diminishes the prevalence of fever by covering the marshy ground with a protective sheet of water. Thus in the Netherlands, it has often been remarked that rainy years are healthy years, while hot and dry seasons are feverish."

Scheube, speaking of conditions affecting malaria prevalence, remarks that :—

"Very heavy rain has a deterrent influence on naturally damp soil . . . At the height of the rainy season . . . in Deli in Sumatra (Martin) and New Guinea (Schellong) the minimum number of cases of illness is notified."

And he explains this by observing that :—

"A thorough soaking of the soil is deleterious to the development of the mosquito."

Craig also records that :—

"In many regions, however, where abundant rains occur, malaria is rare, even though the Anophelines are present. This is explained by the fact that in such regions the rains are so heavy and continued that the breeding places of mosquitoes are washed out and ova and larvae do not have a chance to develop, or that no infected individuals are resident in the locality. In the former instance an unusually heavy rainfall may act as a protection against malaria."

Manson too has observed the same thing and explains it in the following passage :—

"In some places, particularly in those that are lowlying, flat, and swampy, fevers of first invasion disappear almost entirely when the country becomes flooded . . . In some places much rain will scour out the mosquito pools, in other places it will just fill them . . . The key to the explanation of the varying relation of malaria to rainfall is to be found in the influence of the latter on the local mosquito pools."

2. The passages quoted above show that it has long been recognized that the flooding of a country may exert a beneficial influence upon malaria. And authorities like the late Professor Angelio Celli and Professor Julius Mannaberg have always regarded flooding or "covering by water" as useful measures for the control of the disease. The former author refers in his classical monograph on "Malaria according to the New Researches" to this method of combating malaria in the following words :—

"Covering can, so to speak, also be made with water. If a stratum of water be made to cover a malarious site, so long as the water remains at a constant level there will be brought about a relative improvement . . . This submersion in certain cases is only relatively beneficial, and its real value will have to be tested in the light of the new theory regarding the origin and propagation of malaria by means of mosquitoes. Thus perhaps will be explained what seems to be a paradox,

namely, that the suppression of an epidemic of aquatic origin is brought about by the presence of water."

And in Nothnagel's Encyclopædia of Medicine, the latter writer, when discussing the prevention of malaria, remarks that :—

"In swamps where drainage was impossible a regular level was aimed at, especially during the summer months, by the regulation of the incoming and outgoing water, and by the building of dams since it was not the surface covered with water but that which was alternately under water and exposed to evaporation, which was dangerous."

Adding that :—

"Exceptionally during severe epidemic radical measures were undertaken, as, for instance, the copious flooding of malarial foci. This was first put into practice by Empedocles, later by Lancisi."

Some quite recent investigations by Captains Hodgson and King, I.M.S., serve to throw a new light upon the rationale of phenomena of the kind referred to and enable us to understand why "floating or covering by water" may be a most useful measure of antimalarial sanitation. The following passage is extracted from Captain Hodgson's note in the Proceedings of the Lucknow Sanitary Conference, 1914 :—

"Taking the mosquito in its larval existence, we found that the optimum temperature for anopheles lay between 68°—78°F. Temperatures above 80°F. become more and more unsuitable, while temperatures of 95° to 104°F. were rapidly fatal. In nature, during the monsoon at Delhi in August, and in Madras in November, we found the surface of pools to vary from 73° F. to 104°F., the difference being due to the following important facts :—

- (1) The coolest pools were very small pools lying amongst grass.
- (2) The edge of a pool in the day time is cooler than the centre.
- (3) The surface layer is often 3° or 4° hotter than the water 4 or 5 inches down at midday.
- (4) The water lying at the shallow edge, round grass stems, is the coolest part of a pool.
- (5) When the average temperature of pools had risen to 90° or even 100°, falling rain both at Delhi and Madras was found to be 73° to 77°F. during the monsoon.
- (6) The river at Delhi even after long draught never rose above 87°F. at midday.
- (7) Well-water varied from 80°F. to 82°F.
- (8) The sea at Madras in the monsoon was 80°F.
- (9) Small hoof marks in grass might contain water 9°F. cooler than a large pool 6 inches away, particularly during hot dry weather.

"An anopheles mosquito lays her eggs in that type of pool which is coolest at the time. The struggle for existence rapidly increases above 80°F. and temperatures

such as 104°F. are fatal to every single larva in less than 18 hours, though this is a temperature at which some pools have been found in nature. In the Terai in October water varied from 65°F. to 78°F. on the two days we examined it, and anopheles were breeding in millions. The great destroyer of mosquito larvae is nature and her principal means is raising the temperature of the water."

3. It will be seen from these observations that small collections of water and those possessing a large ratio of weedy edge are far more dangerous than large water surfaces, because they invariably possess a lower temperature much more suitable for mosquito larvae than the high temperature to which large collections of water speedily become raised. This fact helps to explain the beneficial effect of flooding upon the prevalence of malaria. When water is admitted in large amount to the surface of a low-lying country, all the small pools are converted into large ones; on the one hand the ratio of dangerous edge is greatly reduced and on the other hand the temperature of the water is speedily raised with the result that the output of anopheles mosquitoes is restricted. And when this measure can be adopted with advantage from the point of view of agriculture also, as it may in countries where the population is largely dependent upon wet crops, a doubly beneficial result may be expected.

4. In regard to the use of flooding as well as in the case of other antimalarial measures specially directed against mosquitoes, there is another point which requires consideration. This is the fact that, broadly speaking, it is in the rainy season only that measures of this kind are required. Moreover, it is only at this time of the year that they can prove effective. An examination of the monthly curve of admissions from malaria will show that the disease usually begins to show an increase in the month of July or August, reaches its maximum in September or October and speedily declines in November. If we compare this sickness curve with the curve of mosquito prevalence, we shall find a remarkable correspondence between them. That is to say, the increase of malarial fever always shows a correlation with the increase of anopheles mosquitoes, and a speedy decline of the disease always follows a great reduction of the number of anopheles. Once this point is grasped, it will be seen that antimalarial measures directed against mosquitoes to be effective must be carried out during that period of the year when anopheles are active in transmitting infection, and at other times efforts directed against mosquitoes will be fruitless. Hence we have to consider the condition of land surfaces and the existence of mosquito-breeding places, especially small collection of water, during the monsoon months and we must concentrate our effort upon reducing the output of insects at this period. In a lowlying country where the land surface has very little fall and where there is a heavy rainfall it is an exceedingly difficult task to diminish the output of mosquitoes by drainage. On the other

hand, provided we can obtain a sufficient supply of water there should be no great difficulty in converting the dangerous small pools into collections of water sufficiently large as to cease to be a danger. This is the measure that I propose should be adopted experimentally in consultation with the Irrigation Department in all areas in which conditions will allow. And for

this purpose I have obtained a list of irrigation sluices. I am informed that in the past very little use has been made of these sluices to provide a supply of water, but in consultation with the Irrigation Department I am hopeful that steps may be taken to utilise them during the present year. I have already arranged for an examination of the silt indices of the

villages served by these sluices. And it will be possible by watching the results of letting in water during the flood season to carry out a series of useful experiments at a comparatively small cost. In addition to this, I am hopeful of being able in the early future to make proposals for the carrying out of one or more larger scale experiments on the lines just indicated.

SCISSORS.

ISLAMIC HISTORY.

To-day among the Muslims we find a group of people, well-versed probably in Arabic and Persian but ignorant of modern historical developments or the progress of modern life, whose only business is to indulge in tall talk of the glories of Islam in days gone by and sigh with self-complacency. Their function is only either to justify every bit of Islamic history dogmatically or to enjoy a boastful indifference towards the present thinking that Islam has achieved enough.

But this attitude of self-complacent boasting and pompous polemical justification is the cause of our ruin and stagnation in the modern world where we are being thwarted in the race of life. The ambition self-confidence and power of grasping problems that a critical study of history can give are woefully lacking in us. Our knowledge of Islamic history is staggeringly insufficient.

(By Mr. A. Hussain, *Dacca University Journal*.)

INDIAN STATE DELEGATIONS

The Viceroy is, indeed, to be congratulated on his courage in choosing an Indian for leadership of this Delegation. The result has amply vindicated his choice. Let us trust that it will embolden him to select Indians for responsible offices of this kind in future, and thus dispel once for all the impression which long practice has created abroad that the paucity of qualified Indians makes it necessary to hold the country in the leading strings of Britishers. No one will venture, in matters of this high order of importance, to deprecate caution, but even a conservative student of Indian affairs will allow that Britain has never taken a forward step a day too soon. On the contrary, by being behindhand even in second-rate innovation, she has again and again lost credit for courage and generosity. May we indulge in the hope that the lesson will not be lost on the Secretary of State for India? He and his Council have allowed India and South Africa to settle their dispute without the intervention of the India Office. If the experiment has succeeded, it may well be repeated with equal chances in its favour. It may be hard to stand aside and let others do the job which one has long considered one's own. But constitutional progress is a series of such self-denying acts and Lord

Birkenhead, we trust, is as capable of them as any Secretary of State before him. (Mr. V. S. Srinivasa Sastri, *The Hindustan Review*.)

PRIMARY EDUCATION AND CO-OPERATIVE SOCIETIES.

It is in the fitness of things that the Bengal Co-operative Organisation Society is going to launch on a scheme for village reconstruction, including, of course, spread of primary education. The Bengal Co-operative Organisation Society with its numerous affiliated societies in the villages is placed in a more advantageous position to tackle this problem than any other body, corporate or otherwise. Spread of primary education in the villages is essential for the development of the co-operative movement. Co-operation can be successful in the real sense of the term only when the masses in the villages are educated, and this cannot be expected so long as provision is not made for the introduction of compulsory primary education among the masses. No movement, however beneficial it may be to the masses, can be crowned with success without so much education of the people as would enable them to appreciate the value of the movement in all its bearings. Lack of education to appreciate the movement has often been the cause of the failure of many a co-operative organisation in this country.

Primary education, in order that it may be effective, should be free and compulsory. This is the first step towards making it universal. Every civilised country has arranged to impart free and universal primary education to its children by making it compulsory. The adoption of the principle of compulsion should follow the establishment of a network of primary schools in the villages. Before primary education is made compulsory, it would be necessary to open a sufficient number of school for accommodating all children of school-going age requiring free primary education. It is also urged that no scheme for the spread of primary education can be worked out on voluntary basis. A large number of schools may be established all over the province, but students will not be forthcoming if primary education is not made compulsory. Whatever be the difference of opinion regarding this point, it is admitted on all hands that primary schools should be started at once in the villages and vigorous steps should be taken to make primary education in the near future compulsory throughout the

province. This is the first step towards the reorganisation and reconstruction of the villages.

(Mr. Sukumar Ranjan Das, *The Bengal Co-operative Journal*.)

HINDU-MOSLEM RELATIONS.

The causes of antagonism are small and few, but how wide is the field of co-operation and mutual help! Disease is no respecter of religion; cholera and malaria have their ravages in both Hindu and Moslem homes. The problems of rural sanitation, good drainage and water supply can only be tackled by the joint efforts of both communities. The remedial measures that can remove poverty from the land must also be adopted by the country as a whole; piece-meal efforts here and there among isolated communities of ten times will fail in achieving the desired end, because the background of economic enterprise is not there in the heart of the nation. Compulsory elementary education, training in agriculture and craftsmanship, co-operative societies for purchase of manufactured articles and distribution of agricultural raw-products, in fact, all the problems of rural reconstruction depend for their solution on the mutual goodwill, confidence and the re-united civic activities of the two great communities of Bengal.

(Sir P. C. Ray, *Dacca Muslim Hall Magazine*.)

INDIAN ARCHITECTURE.

I look upon Indian architecture not from the standpoint of those who look back to a past age, with some of that wistful regret for what has disappeared and is outworn, as a fit theme for academic discussion prompted by a pious but passing impulse, but as a living art to be practised so as to fit in with our present ideal and necessity, not in the sense of architectural exorcism but as a part of an organic whole. The craftsmen of those days in the frontier provinces were certainly tinged with the Hellenistic ideas of decoration to some extent which are infinitesimal considering the vastness of the indigenous system as evinced in the details.

Until the Greek plan and elevation of building are discovered we cannot fairly speak of the Greek influence on Indian architecture. The adoption with material alterations of a very few decorative motives does not justify the supposition of Greek origin or Greek influence.

(Pandit Manomohan Ganguly, B. E., *Journal of the Bihar and Orissa Research Society*.)

MISCELLANEOUS.

INSTITUTE OF RAILWAY ACCOUNTANTS AND AUDITORS.

The Government of India are giving anxious consideration to improving the professional status of Accountants and Auditors in India. Railway Accountants, Statistics and Audit require detailed technical knowledge of Railway working conditions from men of culture and calibre who had specialized training. With a view to providing a central organization for these professions, the Institute of Railway Accountants and Auditors has been founded, with Sir Frederic Gauntlett, K. B. E., the Auditor General in India, as the First President. The following gentlemen are the Foundation Fellows, who, with the President and the Honorary Organizing Secretary, constitute the first Council of the Institute:—

Messrs. R. L. Briss, Chief Auditor, A. B. Railway, R. A. Breteton, V. D., Chief Auditor, Burma Railways, C. C. Fink, Chief Auditor, M. and S. M. Railway, R. Grant, Chief Auditor, B. N. Railway, L. Greenham, Retiring Agent B. N. Railway, J. M. Hartley, Accountant General, Railways, W. F. Milne, Chief Auditor, B. N. Railways, M. K. Mitra, Chief Auditor, E. I. Railway, R. A. O'Connor, Chief Auditor, G. I. P. Railway, M. H. Ormsby, Chief Auditor, S. I. Railway, E. M. Slane, Chief Auditor, B. & N. W. & R. & K. Railways and F. P. B. Wood, Chief Auditor, N. W. Railway.

The more important amongst the many objects of the Institute, as set forth in the Memorandum of Association, are

(1) To provide a central organization for Railway Accountants and Auditors, and generally to do all such things as from time to time may be necessary to elevate the status and procure the advancement of the interests of the profession.

(2) To provide for the better definition and protection of the profession by a system of examination and the issue of certificates.

(3) To promote and foster in Railway and Commercial circles a higher sense of the importance of systematic and correct Accounts and Costs and to encourage a greater degree of efficiency in those engaged in keeping them.

(4) To provide opportunities for intercourse amongst the members and to give facilities for the reading of papers the delivery of lectures and for the acquisition and dissemination, by other means, of useful information connected with the profession, and to encourage improved methods of cash keeping, accounting, auditing, and the compilation of statistics.

(5) To watch over, promote, and protect the mutual interests of its members.

(6) To apply, petition for or promote any Act or other authority with the view of the attainment of the above objects, of any of them.

(7) To encourage, regulate and elevate the technical and general knowledge of persons engaged in or about to engage in Railway Accounting and Auditing or in any employment in connection therewith and with a view thereto to provide for the holding of classes and test by examination or otherwise the competence of such persons and to institute and establish professorships, studentships, scholarships, rewards and other benefactions and to grant certificate of competency whether under any Act of the Government of India or Local Governments regulating the conduct and qualifications of Railway Accountants and Auditors and statisticians or otherwise howsoever.

(8) To give the Government of India, Railway Administrations, public bodies and others, facilities for conferring with and ascertaining the views of Railway Accountants and Auditors as regards matters directly or indirectly affecting Railway Accounts, Audit, Finance and Statistics and to confer with the said Governments, and public bodies and others in regard to all matters affecting these subjects.

(9) To promote efficiency and just and honourable dealing.

(10) To do all such other acts and things as are incidental or conducive to the attainment of the above objects or any of them.

The Institute will consist of Honorary Life Fellows, Honorary Members, Fellows, Members, Associated Members, Associates, Students and Subscribers.

Honorary Life Fellows may be elected, as prescribed in the by-laws on account of their eminence in Railway Accounts or Finance to the number of not more than twenty in all.

The Viceroy and other high officials whose appointments bring them in close relationship with railway finance, for the period of their tenure of office, together with not more than fifteen individuals who have rendered eminent service in pursuits allied to Railway Accounts may, with their consent previously expressed, be elected Honorary Members of the Institute as prescribed by the By-laws.

The qualifications for election and attachment to the Institute are fully set out in the "Constitution" of the Institute, a printed document of more than forty pages, a copy of which may be obtained from Mr. K. C. Srinivasan, the Honorary Organizing Secretary of the Institute, 5 and 6, Government Place North, Calcutta.

HUSBAND'S PRIVILEGE.

Privileges, especially time-honored, wear out slowly. Wife beating is one of such privileges. It survives largely in India, but it survives also in so-called highly civilised countries—and what more, had once obtained even a legal recognition. In India marriage being a sacrament and the union

being indissoluble, the husband can take advantage of the hold matrimony gives over his wife. But in countries where marriage is largely a question of contract, it is surprising that wife beating should survive.

According to one of the London evening papers, a Paris court has decided that in certain circumstance a French husband may beat his wife; it was held, according to this report, "that the blows the woman received were justified by the irritation her conduct had caused her husband." The Code Napoleon on which this alleged decision is based should be investigated. In the mean-time the proposition that the modern Frenchman is entitled to beat his wife may be set beside the French belief that when an Englishman is tired of this partner, all he has to do is put a halter round her neck and sell her at Smithfield, says the "Manchester Guardian." "Some Englishmen of the lower orders did at one time sell their wives, and it was once firmly believed among both French and Germans that it was a well-recognised and thoroughly established custom of the country" (D. E.)

WIFE BEATING.

Some of the codes of mediaeval knight-hood allowed for wife-beating, and a real advance is said to have been marked when, in the 13th century, it was laid down in one set of chivalrous regulations "que le mari ne doit battre sa femme que raisonnablement"—that is, he must only give her a moderate beating. Something of the same kind is seen in the old tradition that it was quite in order to beat a wife so long as the stick used was no thicker than the wife's thumb. But these tender mercies and the codes which enjoined them are very ancient history by this time. One would be surprised to hear that French husbands had, in solemn fact, been given official permission to beat their wives—just as surprised as one would be to hear that in certain circumstance an Englishman was at liberty to drive his own spouse off to market. (D. E.)

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ENEMIES OF HEALTH.

ALCOHOL.

Alcohol is a Poison.

Even a moderate use of this is harmful.

Alcohol is injurious even to the next generation.

It has a favouring influence upon venereal disease.

It aggravates the evils of famine.

It is useless as a preventive of any disease.

Alcohol lowers the resisting power against the parasites of any disease.

Alcohol predisposes to heat-stroke in hot weather.

Alcohol produces defective vision.

Alcohol tends to age men prematurely.

Alcohol impairs digestion.

Alcohol has a very injurious effect on the liver and kidneys.

Alcohol produces 'Hob-nailed liver'.

Alcohol produces chronic nephritis.

Alcohol produces Brights Disease.

Alcohol affects the heart.

Alcohol produces 'alcoholic heart.'

Alcohol causes the hardening of the arteries and 'arteriosclerosis.'

Alcohol makes its victims susceptible to diabetes, gout, pneumonia and typhoid.

Alcohol causes much damage to the property, accidents, fires and loss of lives.

TESTIMONIALS.

Napoleon Bonaparte :—"It is only a sober army that can succeed," and "the foe is less to be feared than wine."

Field Marshal Lord Roberts :—"Alcohol confuses prompt judgment... hastens fatigue, lessens resistance to disease and exposure."

Mr. Lloyd George :—"We are fighting Germany, Austria and Drink, and as far as I can see the greatest of these three deadly foes is Drink. Drink is doing us more damage in the war than all the German submarines put together."

Theodore Roosevelt of U. S. A. :—"The liquor business tends to produce criminality in the population at large, and law-breaking among the saloon-keepers themselves. When the liquormen are allowed to do so as they wish they are sure to debauch not only the body social, but the body politic also."

Alcohol users have much less chance of recovery than others in pneumonia and typhoid.

Alcohol does more harm than good.

TOBACCO.

Smoking affects the power of endurance, control, precision, marksmanship, the heart the throat, the lungs,

Smoking causes paralysis, acid dyspepsia, tremor, increase of blood-pressure, cancer of the mouth, Bright's Disease, loss of taste and loss of smell, loss of memory, acuteness of vision, colour blindness, apoplexy, insomnia.

Smoking poisons the air of others reduces longevity, stunts growth, hardens the arteries a positive sign of the beginning of the old age, weakens the resistance to any disease, produces criminals, predisposes to drunkenness, ruins the nerves, wastes money and injures the mind, the character and the disposition of the user.

Smoking causes fires resulting in extensive damage to property and loss of life.

Smoking adds to a man's nervous troubles, subtracts from his physical energy, multiplies his aches and pains, and divides his mental forces, takes interest from his work and discounts his chance of success.

Napoleon Bonaparte :—"Tobacco smoking is a habit fit to amuse sluggards."

Dr. Sims Woodhead :—"Cigarette smoking in the case of boys, partially paralyses the nerve cells at the base of the brain, and this interferes with the function of the eye, of the heart, and of the kidneys. Tobacco smoking interferes with the development of the boy."

Dr. Forbes Winslow :—"I should put the causes of insanity in the following order: Drink, cigarette-smoking, heredity."

Chancellor of Leland Stanford University :—"Cigarette-smoking boys are like wormy apples—they drop long before harvest time."

Chairmen of the Union Pacific Railway :—"Cigarette smokers are unsafe. I would just as soon get railroad men out of the insane asylum as to employ cigarette-smokers."

Alcohol and Tobacco are Enemies of Health :—Don't Use Them.

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