# HARIJAN

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Two Annas

#### WEEKLY NOTES

DEPARTURE FOR KASHMIR

After weeks of hopes and fears the people of Kashmir were relieved to learn that Gandhiji had at last started for Kashmir on the night of the 30th July. Gandhiji's one and only one hobby is his work. He does not care for sight-seeing and even those with him have often to miss beautiful scenery for the same reason. Mahadevbhai told me how he could not spare time to go and see the beautiful Gersappa Les in the South during one of Gandhiji's South In ia tours. Gandhiji was too busy and so, of course, was his secretariat.

But even Gandhiji was keen to visit the beautiful Kashmir. The talk about the proposed visit had gone on for weeks. Pandit Nehru brought maps and showed him what places he ought to visit. He read out to him passages about Kashmir from books and tried to enthuse him in every possible way. Seth G. D. Birla is an orthodox Hindu. As soon as he heard that Gandhiji wanted to visit Uttarkashi, he took up the idea with enthusiasm and eagerly went forth to make arrangements for the 'old father's' pilgrimage. But the idea was later dropped for the time being. Pandit Nehru is different. Pilgrimages do not suit him. He wanted the 'old father' to go to Kashmir, where he could find a little rest and peace and also give solace to the suffering people. Gandhiji needed the rest very badly and agreed to spend a fortnight in Kashmir, if there was time. But he did not wish to go there against the wishes of the Viceroy. He took time to make up his mind. H. E. only wanted to advise. The result was that instead of a fortnight Gandhiji could spare only three days for Kashmir.

#### AT KASHMIR

reached in the He evening 1st instant and left it on the morning of the 4th. During his stay there, all that he saw of Kashmir besides the road was the inside of Lala Kishorilal's house, where he was putting up. He could not even spare a couple of hours to go and see the beautiful gardens of Shrinagar. Every minute was booked up. All kinds of people came to see him. They were all unanimous in asking for the release of Sheikh Abdulla Saheb and other leaders and for the removal of the Prime Minister. Gandhiji told them that he had not come on a political mission. He had no intention to ask for the release of Sheikh Abdulla Saheb. A satyagrahi's mere stay in jail was a most potent force to achieve the objective.

At Jammu, which he reached on the 4th August, deputations of workers and students waited on him. "India will be free on the 15th of August," they said. "What of Kashmir?" "That will depend on the people of Kashmir," replied Gandhiji. What could the people do when Sheikh Saheb was behind the bars? they asked. A similar question had been asked in Shrinagar also. Gandhiji discouraged the tendency to rely on one man and feel helpless in his absence. They must learn to stand on their own legs. The leader's function was merely to help them in that. Spoon-feeding could not go on for ever.

They all wanted to know whether Kashmir would join the Union or Pakistan. Gandhiji had not gone to Kashmir to discuss this question. It should be decided by the will of the Kashmiris.

He had promised himself that he would make no speeches in Kashmir so as to make his visit devoid of all political colour as far as was humanly possible. On the first day public prayer also was not held. But the authorities wrote saying that they had no objection to the prayers being held in the compound of the house where he was staying. So the prayer was held and was attended by thousands on the 2nd instant. Men and women flocked from the neighbouring villages to have a glimpse of the Mahatma. Friends and foes alike wonder at the hold he has on the masses. His mere presence seems to soothe them in some strange fashion. Those near him for long forget this fact.

## AT THE WAH CAMP

Gandhiji went up to Shrinagar via Rawalpindi but his programme had been fixed already. He could not break journey at Rawalpindi and went straight up to Shrinagar. But his heart was with the sufferers of the Punjab. Therefore, he cut short his stay in Kashmir and returned to Jammu on the 4th instant from where he motored down all the way back to Pindi so as to spend some time with the refugees at the Wah Camp. The number of refugees in this camp had reached 24,000 at one stage. But the fear of the coming 15th of August was fast driving them out of Western Punjab. They numbered about 9000 on the day of Gandhiji's visit. They were all insistent that the camp should be removed to Eastern Punjab before the 15th instant. They were terror-striken. The things that they had seen and passed through were too terrible to be faced again. They could not trust the Muslims. If left in Western Punjab, they would have no alternative except to embrace Islam or to die, they said. It was too painful for Gandhiji to hear

these things from the lips of the Sikhs whose Gurus had made such tremendous sacrifices for the sake of their religion. Was religion so cheap that it could be sold for the sake of life or property? Why had they forgotten the glorious instance of Guru Govind Singh's boys who laid down their lives for their religion at a tender age? The Sikhs had taken to a life of luxury. It had robbed them of their valour. Could there be anything more tragic than that? He wanted them to develop superior bravery to that of the sword. That, to him, was the true test of valour.

There was no cause to be frightened of the coming 15th of August. He would have loved to stay in their midst till then and face the danger if there was any. But he could not do so. He had promised to be in Noakhali before that date. Therefore, he asked me to stay on with the refugees till the 15th. His post-prayer speech at the Refugee Camp—the first one since he left Rawalpindi—dealt with his visit to Kashmir and the question of the refugees. It will be reproduced in the next issue.

#### AT PANJA SAHEB

The Wah Camp is situated at a distance of about 2 miles from Panja Saheb, the famous Sikh Gurudwara. From the Camp Gandhiji motored to Panja Saheb where he was taken to a cool underground room for rest. Two water channels leading from the main tank flow through this room. The tank is fed by a spring which yields lovely cool water. But like most holy places the tank is made extremely dirty by the thoughtless public. Before leaving Panja Saheb, Gandhiji visited the Gurudwara where an address was presented to him in Gurumukhi. It narrated the sufferings of the Sikh community and the dangers that faced them and their shrines in Pakistan. The Panja Saheb Gurudwara is one of the oldest and holiest of the Sikh shrines. It owns property worth a crore or so. It feeds one thousand mouths every day. Nowadays, nearly three to four thousand people are fed at the Guru ka langar everyday. Twice the Gurudwara was attacked by Muslim mobs during the recent disturbances. But with the grace of God, the attack was warded off and no harm came to the Gurudwara. But they wanted definite and concrete measures to insure the safety of the Gurudwara. Any damage to the Gurudwara would endanger the peace of the whole of the Punjab, they said. They also wanted Eastern Punjab to be made into a Sikh State where Sikh religion and culture could prosper. Replying to the address Gandhiji did not consider it possible that Eastern Punjab should be handed over entirely to the Sikhs to govern. He felt that the Sikhs should never entertain such an unworthy ambition. The Sikhs were reputed, and rightly, to be a warlike race. With them of all the persons in the world, merit and merit alone should be the sole test for holding any office. He hoped that throughout the two dominions merit would be the sole test. The speaker invited the Sikhs to lead in this desirable competition.

Coming to the protection of Panja Saheb, Nankana Saheb and the other Gurudwaras that may be found in Pakistan or elsewhere, he said, "Do not look to any other power outside yourselves for the protection of these shrines. I would like every Sikh to be a defender of his faith and, therefore, of all the Gurudwaras and not merely of Panja Saheb which is one of the greatest. At the same time I want you to shed all fear about the future. I would ask you to rely upon the plighted word of the Muslim leaders. They had got their Pakistan. They have no quarrel now with any one in India - at least they should have none. If your fears materialize and any attempt at desecration of the Gurudwaras is made by the Muslims, it will be contrary to the tradition of Islam as I know it. And those Muslims who take part in such desecration would be partakers in the destruction of Islam. Every faith is on its trial in India. God is the infallible judge and the world which is His creation will judge the Muslim leaders not according to their pledges and promises but according to the deeds of these leaders and their followers. What I have said of the Muslim leaders is also true of the leaders and followers of other faiths.

Rawalpindi, 6-8-'47

S. N.

#### FOOD CRISIS AND SOIL FERTILITY

The present crisis is not directly due to the low fertility of the Indian soil. There are a number of factors which are responsible for the food-shortage. But the Government could really save the country from the crisis by taking steps, which it has failed to do, to increase production by applying manures to the soil. It is high time for the National Government to increase the crop production. If India can produce more cereals like paddy, wheat, jowar, bajra etc. which form the staple and most important ingredient of the food materials, the chance of a famine or a crisis will be much less. Many parts of the country depending on rice have always been substantially helped by the crops produced in Burma, Malaya, Siam and other countries. In the Travancore State 367,000 tons of rice are annually imported as against 250,000 tons produced in Travancore. Bengal and Madras have also to depend a good deal on imported rice. Hence there is plenty of scope for the better production of those cereals which respond well to treatment by nitrogenous compounds.

The question regarding the exhaustion of the Indian soil has been repeatedly asked; but so far no satisfactory answer has been forthcoming. Dr. Voelcker in his Improvement of Indian Agriculture recorded the following results at Rothamsted (in England) in the case of wheat grown on fields continuously unmanured for over 50 years:

Crop yield in bushels '

8 years	(1844-51)	
20 years	(1852-71)	
20 years	(1872-91)	

17 13.9 11.1 1 bushel=30 seers These results show that there is a slow deterioration of the unmanured fields at Rothamsted. Dr. Voelcker concluded that under existing conditions of agriculture, the soil of India must become gradually poorer.

On the other hand Howard and Wad in their Waste Products of Agriculture have stated as follows:

"A good example of such a system of farming without manure is to be found on the alluvial soils of the United Provinces, India, where field records of ten centuries prove that the land produces fair crops year after year without any falling in fertility. A perfect balance has been reached between the manurial requirements of the crops harvested and the natural processes which recuperate fertility."

G. Clarke (late Director of Agriculture, United Provinces, India) in his presidential address to the Agriculture section of the Indian Science Congress, has stated the position in the following words:

"When we examine the facts, we must put the Northern Indian cultivator down as the most economical farmer in the world as far as the utilization of the potent element of fertility, nitrogen, goes. In this respect he is more skilful than his Canadian brother. He cannot take a heavy over-draft of nitrogen from the soil. He has only the small current account provided by a few pounds annually added by nature, yet he raises a crop of wheat on irrigated land in the United Provinces that is not far removed from the Canadian average. He does more with a little nitrogen than any farmer I ever heard of. We need not concern ourselves with soil deterioration in these Provinces. The present standard of fertility can be maintained indefinitely. . . . In India, we have in existence at least a perfect balance between the nitrogen requirements of the crops we harvest and the processes which recuperate fertility."

It is well-known that about half of every crop the root system remains in the ground at harvest time and thus provides the soil with cellulosic and other carbonaceous materials. From our experimental observations showing that cellulosic and other energy-rich substances when added to the soil, cause marked nitrogen fixation, it can be concluded that from the exidation of the cellulosic and other organic substances, the nitrogen fixed on the soil surface, supplies the plant need. The nitrogen need of crops in the tropical countries, can be met by the nitrogen fixed from air due to the energy liberated from the exidation of the cellulosic materials, left behind in the soil after harvesting. Moreover, the available nitrogen in rain water in the tropics is greater than in that of temperate countries. In the cold countries, chiefly due to the inactivity of Azotobacter caused by the low temperature of the soil and lack of sunshine, the cellulosic and other energyrich materials added to the soil along with plant residues, are not oxidized as readily as in tropical soils and hence much nitrogen fixation is not possible in the soil of temperate countries. This explains the slow deterioration of the unmanured fields of Rothamsted already referred to. From the above observations, it seems that in the tropical countries,

almost a constant yield of crop which is not high in unmanured fields, is possible, due to the addition of nitrogen to the soil by the fixation of atmospheric nitrogen, caused by the energy produced from the exidation of plant residues, left in the soil or added to it. Also the available nitrogen in tropical soils is usually over 10% of the total nitrogen while in the countries having temperate climate, the available nitrogen is between 1 to 2% of the total nitrogen. It is clear, therefore, that the amount of ammonium and nitrate ions, available in tropical soils for plant growth, is much greater than that available in cold countries, although the total nitrogen in cold countries may be double or treble of that in the tropical countries.

#### MANURING OLD AND NEW

Manuring can be done in two ways: by adding nitrogen-rich substances, e. g. nitrates, ammonium sulphate etc. and secondly, by adding carbonaceous substances which may help in fixing atmospheric nitrogen. The fertility is due to the available nitrogen (as ammonia and nitrate) and it is by increasing the nitrogen content that the fertility of the soil can be raised.

As regards inorganic manures, the artificial manures like ammonium sulphate, ammonium nitrate etc. which are likely to be manufactured in India, do not enrich the soil and increase soil fertility permanently. Most of these manures are lost as nitrogen gas without adding nitrogen to the soil. Hence, soils treated with such artificial manures may temporarily increase the crop yield but usually they deteriorate and their nitrogen content may fall off. On the other hand, organic manures like cowdung, farmyard manure, molasses etc., when added to the fields, not only add to the nitrogen they contain but the soil is also enriched by the fixation of atmospheric nitrogen. The value of cowdung or molasses depends chiefly on its power to fix atmospheric nitrogen. In Rothamsted no combination of manures has been found to be so effective as farmyard manure, in steadying crop yield from year to year and there was an increase in soil nitrogen to about three times its original value when farmyard manure was used for more than sixty years; whilst with ammonium sulphate and soda nitrate, the soil nitrogen has a tendency to fall off with time. Similar beneficial results of organic manures over artificial nitrogenous compounds have been obtained with cowdung, molasses and leaves of plants in Allahabad and sunlight is actually utilized in increasing the nitrogen content of soil, when treated with organic manures. The experiments at Allahabad have fully established the fact that nitrogen fixation may be a non-bacterial process and it can take place readily in the complete absence of bacteria but with smaller velocity.

In support of organic manures Dr. G. Ruschmann says:

"The increase of soil fertility, which is the aim of all the modern scientific and practical efforts, cannot be attained by mineral manures. These by accelerating (Continued on p. 282)

## HARIJAN

August 17

1947

## STUDENTS' DIFFICULTIES

(By M. K. Gandhi)

"There is an attempt today to bring together all the existing students' organizations in a National Convention, to revise the basis of the student movement and to evolve a united national organization of students. What, in your opinion, should be the scope of this new organization? What activities should this students' organization undertake in the new circumstances in the country?"

There is no doubt that there should be one national organization including the Hindus, the Muslims and the others. Students are the makers of the future. They cannot be partitioned. I am sorry to observe that neither the students have thought for themselves nor have the leaders left them to their studies so that they can become good citizens. The rot began with the alien government. We, the inheritors, have not taken the trouble to rectify the errors of the past. Then the different political groups have sought to catch the students as if they were shoals of fish. And stupidly the students have run into the net spread for them.

It is therefore a herculean task for any students' organization to undertake. But there must be a heroic spirit among them who would not shrink from the task. The scope will be to knit them together into one. This they cannot do unless they will learn to steer clear of active politics. A student's duty is to study the various problems that require solution. His time for action comes after he finishes his studies.

"Today students' organizations are more concerned with passing resolutions on political affairs than devoting their energies to the task of national reconstruction. This is partly due to the attempts which political parties have been making to capture the students' organizations for their party purposes. Our present disunity too can be traced to these party politics. We, therefore, want to evolve some method by which we can prevent the repetition of all this party politics and disunity in the proposed National Union of Students. Do you think it is possible for the students' organizations to eschew politics completely? If not, what, in your opinion, is the extent to which students' organizations should interest themselves in politics?"

This question is partly answered above. They must eschew active politics. It is a sign of one-sided growth that all parties have made use of the student world for their purpose. This was probably inevitable when the purpose of education was to create a race of slaves who would hug their slavery. That part of the business is over, I hope. The students' first business is to think out the education that the children of a free nation should

receive. The education of today is obviously not such. I must not go into the question as to what it should be. Only they must not allow themselves to be deceived into the belief that it is the function only of the elders in the university senates. They must stimulate the faculty of thinking. I do not even remotely suggest that the students can force the situation by strikes and the like. They have to create public opinion by offering constructive and enlightened criticism. The senators having been brought up in the old school are slow to move. They can truly be acted upon by enlightenment.

"Today, the majority of students are not interesting themselves in national service. Many of them are cultivating what they consider 'fashionable' western habits, and more and more students are resorting to bad habits like drinking etc. There is little efficiency and little desire for independent thinking. We want to tackle all these problems, and build up character, discipline and efficiency in youth. How do you think we can do it?"

This deals with the present distemper. It will disappear when a calm atmosphere is produced, when the students cease to be agitators and take to sober studies. A student's life has been rightly likened to the life of a sannyasi. He must be the embodiment of simple living and high thinking. He must be discipline incarnate. His pleasure is derived from his studies. They do provide real pleasure when study ceases to be a tax the student has to pay. What can be a greater pleasure than that a student marches from knowledge to more knowledge? On the train to Patna, 7-8-'47

#### IS HE BURIED ALIVE?

(By M. K. Gandhi)

A correspondent from Hyderabad (Deccan) writes:

"India has reached the present state on the strength of Gandhi's ideals and practice based on them. But is it not clear that we are kicking the very ladder by which we have mounted so high? Where are Hindu-Muslim unity, Hindustani, khadi, Village Industries? Is not any talk about them hypocrisy?"

There is substance in the biting criticism. But I cling to the hope that I am not yet buried alive. The hope rests on the belief that the masses have not lost faith in them. When it is proved that they have, they will be lost and I can then be said to have been buried alive. But so long as my faith burns bright, as I hope it will even if I stand alone, I shall be alive in the grave and what is more, speaking from it. The correspondent forgets untouchability and prohibition. The former is rapidly disappearing. And it looks as if prohibition is coming. I am quite sure that if the Congress forsakes the ideals it adopted in 1920, it will commit suicide.

On the train to Patna,

7-8-'47

(Adapted from the original in Hindustani)

#### NOTES

#### The Reason for Addition

During the three days I passed in Shrinagar though I had prayers in the compound of Lala Kishorilal's bungalow, where I was accommodated, I made no speeches. I had so declared before leaving Delhi. But some of the audience sent me questions. One was:

"I attended your prayer meeting last evening in which you recited two prayers of the other communities. May I know what is your idea in doing so and what you mean by a religion?"

As I have observed before now, the selection from the Quran was introduced some years ago on the suggestion of Raihana Tyebji who was then living in the Sevagram Ashram and the one from the Parsi prayers at the instance of Dr. Gilder who recited the Parsi prayer on the break of my fast in the Aga Khan palace during our detention. I am of opinion that the addition enriched the prayer. It reached the hearts of a larger audience than before. It certainly showed Hinduism in its broad and tolerant aspect. The questioner ought also to have asked why the prayer commenced with the Buddhist prayer in Japanese. The selections of the stanzas of the prayer has a history behind it befitting the sacred character. The Buddhist prayer was the prayer with which the whole of Sevagram resounded in the early morning when a good Japanese monk was staying at the Sevagram Ashram and who by his silent and dignified conduct had endeared himself to the inmates of the Ashram.

Jammu, 5-8-'47

#### Why Not Indian?

His second question was why Lord Mountbatten was selected as the first Governor-General. The reason so far as I know is properly guessed by the questioner. There was no equally suitable Indian for the post. He, being the part, if not the sole, author of the conception lying behind the Indian Independence Bill, seemed to the members of the Interim Government to be the fittest person to pilot the ship of State safe through the troubled waters. The appointment if it was a credit to the British, was equally a credit to the Indian statesmen who had shown themselves free from prejudice and who were capable of rising above prejudice. They showed that they were brave enough to trust their erstwhile opponents.

#### The Minorities

He next asks why I do not agree that the minorities should quit their respective dominions.

No one has asked me to agree. But I should oppose any such movement. There is no occasion to distrust the majority in either dominion. And in any case, now that there are two sovereign States in India, each has to ensure the proper treatment of the minorities in the other. Let us hope that such a contingency will never arise. I hold too that every right carries with it a duty, better still, there is no right which does not flow from duty duly performed.

#### Leaving Politics after the 15th?

Fourthly, he asks whether I would leave politics after the 15th when India will be free.

In the first instance there is no freedom approaching the Kingdom of God. We seem to be as far from it as ever. And in any case the life of the millions is my politics from which I dare not free myself without denying my life work and God. That my politics may take a different turn is quite possible. But that will be determined by circumstances.

Lastly he says, "You have done a lot of work in Bihar; why was the Punjab ignored?"

All I can say is that my not going to the Punjab must not be counted as my neglect of the province. Nevertheless the question is quite apposite and has been asked more than once. The neatest answer I gave was that I had no call from within and my counsellors gave me no encouragement.

On the train to Patna, 7-8-'47

M. K. G

#### TRUE ISLAM

(By M. K. Gandhi)

A Muslim correspondent sends a letter which is given below barring personal references:

"Islam is a universal religion and its great message is to strive and know the Truth. The following verses of Maulana Jalaluddin Roomi will explain what great effort is needed even for great souls like Caliph Ali to know the Truth:

1. The Prophet said to Ali, 'O Ali!

Thou art the Lion of God, a here most valiant
Yet confide not in thine lion-like valour;
But seek refuge under the palm trees of the truth
Come under the shadow of the Man of Reason,
Thou canst not find it in the road of the traditionist.
His shadow of earth is as that of Mount Qaf,
His spirit is as a Simurgh soaring on high.
Were I to tell his praises till the last day
My words would not be too many nor admit of
curtailment;

That sun is hidden in the form of a man, Understand me. Allah knows the truth!'

Pass over names and look to qualities
 So that qualities may lead thee to essence;
 The differences of sects arise from His names
 When they pierce to His essence, they find His peace.

The great tragedy of Muslim India today is that it has entangled itself in names and has ignored the teachings of Islam, whereby it could have passed over to knowing the reality. They act according to their own natures, yet they attribute their actions to Islam forgetting that:

The moon sheds her light and the dogs howl; Everyone acts according to his nature To each his office is allotted by the divine decree. I swear by Ages indeed man is at total loss Except those who believe and do good deeds And those who preach for Truth and Non-violence.

I would request you kindly to avoid bringing the name of Islam when you refer to the actions of the Muslims, as the two are today different."

Would that this Islam might be exhibited in the deeds under: Pakistan and the correspondent's taunt dispelled!

New Delhi, 20-7-'47

### FOOD CRISIS AND SOIL FERTILITY

(Continued from p. 279)

the breaking down of humus are actually detrimental. Increase of crop by improving the soil properties, and greater returns by addition of plant food are two different things, which are often confused. The latter can be effected by mineral manures which act immediately. On the other hand, to build up a good soil is a more lengthy process. While it is relatively simple to maintain the fertility of soil rich in humus, it is difficult in a soil which is mainly mineral to build up the necessary humus. . . . Directly or indirectly all plant and animal life is made possible by the soil humus. To its increase may be systematically employed all those organic materials which at present are virtually wasted. The greatest attention should be devoted to the albuminous or nitrogen containing organic rejects and residues of human and animal life.'

The best manure, well-suited for this hot and poor country like India, is certainly farmyard manure (cowdung) or any substance rich in carbonaceous compounds e. g. molasses, leaves, plant residues etc. When these materials are not available in large amounts, they may be mixed with ammonium sulphate, ammonium nitrate or urea manufactured in this country. To purchase artificial manures from abroad is likely to be costly and the poor cultivator may not be in a position to purchase imported material.

BURNING OF COWDUNG CRIMINAL

As explained above cowdung or farmyard manure is definitely the best manure for increasing the soil properties and steadying the crop yield. If it is utilized properly, it may really serve as a boon to the poor Indian farmer by giving a rich return of steady crop-yield on a relatively cheap price. It is really a pity that cowdung being the most economic manure, the Indian farmer burns, knowing little that he is burning his own money. But the question arises as to what fuel should he use. Unfortunately, cowdung is the only fuel cheaply available to him. The Government in the past have totally neglected this important problem and seem to have no schemes even at present. Under a National Indian Government which propose to launch a thousand and one schemes for the improvement of Indian agriculture, steps must be taken to really better the lot of the Indian farmer by procuring some other fuel for his use and leave cowdung only for manuring purpose. It may be useful to encourage tree-plantation or coal may be made available wherever possible.

It has been suggested that preparation of compost for use in the fields may be useful; but agriculturists all over the world find its preparation tedious and laborious and are, therefore, not anxious to take it up seriously. From our experiments on the fixation of nitrogen by the addition of green and dry leaves, paper, straw, etc. to the soil in fields, we are of the opinion that it is more profitable to add these plant residues to the soil before composting. When these plant residues are added to the soil and ploughed under before the rainy season, in three months, they are considerably decomposed and the carbon of the materials undergoes oxidation on the soil surface with the liberation of energy necessary for nitrogen fixation. These plant materials, therefore, when added to the soil directly, not only supply

the nitrogen, potash etc. they contain but can fix appreciable amounts of nitrogen on the soil surface and enriches the soil. If the plant materials are not in large excess, they are considerably decomposed and oxidized within three months after their application and the carbon-nitrogen ratio of the soil attains the normal value. The humus, the colloidal matter and the nitrogen contents are increased. The tilth, the moisture retention and the nitrogen conservation capacity are considerably improved. In composting the aim is to conserve the total nitrogen originally present in the materials and add it to the soil along with the carbon of the compost. In our method of adding the plant materials direct to the soil, not only the nitrogen present in the original material is added but a considerable amount of nitrogen increase in the soil takes place due to the fixation of atmospheric nitrogen. It appears, therefore, that the application of the plant materials direct to the soil is more beneficial than composting them because the high temperature and the sunlight available in tropical countries are helpful.

As a matter of fact inorganic manures are no good in improving the soil properties. However, they may be useful for getting better crops in the hour of need. It is no exaggeration to state that the standard of civilization of a country can be judged by the amount of nitrogen of the air fixed for the production of synthetic ammonia and nitric acid from the nitrogen of the air. It is pleasing to note that India is also going to have some plants for the manufacture of manure. But the Government ought to be aware of the fact that unless we can compete with sister countries like China and Japan in the production of manures, the fate of locally manufactured manures would be no better than that of gur (sugar) some years back. It does not sound economical and wise to establish a plant in Bihar and get raw materials (gypsum) from Rajputana about 800 miles apart.

The manures that can be manufactured in India are urea, ammonium nitrate, ammonium sulphate etc.

#### How to Reclaim

The chief defects of alkali land are:

- 1. The alkalinity. We have exampled several samples of bad *usar* lands and we find that the alkalinity is very high. Neither Azotobacter nor nitrite-formers are observed in cultures obtained with these soils.
- 2. The amount of calcium compounds is less in these soils than in normal ones. The amounts of exchangeable bases are less than in normal soils.
- 3. The nitrogen content is small. In several samples examined by us the total nitrogen varied from 0.008% to 0.02%; normal soils contain approximately 0.053 nitrogen in tropical countries.
  - 4. The soil is highly impermeable to water.
- 5. The soil particles do not settle readily when shaken with water.
  - 6. Lacks bacterial activity.

It is estimated that the total area of usar (alkali) lands in the United Provinces alone is more than four million acres. In the Punjab (Lyallpur, Montgomary and other places), Bihar, Mysore, Sind

and Bombay, there are vast tracts of such unproductive land. Naturally the reclamation of these lands is a problem of great importance to India. The salts which make these lands unfit for growing crops are the carbonate, bicarbonate, sulphate and chloride of sodium. Sodium carbonate is chiefly responsible for the unproductiveness of such lands, which are generally heavy clay soils and are very often termed parti or waste lands. In Sind and in the other parts of the country, normal soils are being converted into alkaline ones by irrigation water. Moreover, there are vast tracts of sea-water-damaged lands in Bengal, Orissa, Gujarat, Bombay and Madras Presidencies. Due to various causes, mentioned above, the amount of alkaline land is increasing in India.

Regarding reclamation, the late Dr. J. W. Leather carried on experiments for the reclamation of alkali soils in different parts of the United Provinces (India). His conclusions are as follows:

- 1. The only experiment which can claim to have really reclaimed the usar land (alkali land) is the application of gypsum. The cost of sufficient gypsum to effect this was very great—about 700 or 800 rupees per acre—and is obviously prohibitive. Even if the cost of gypsum could be reduced to one-half, it would still be too expensive if required in the quantity that this land did receive it.
- 2. The effect of deep and good cultivation coupled with heavy manuring has not been either what is indicated to the unaided eye or what might have been anticipated. The surface foot of the soil has been apparently reclaimed, but below this this soil is as bad as ever.
- 3. Scraping of the salts is practically useless. Recently Dr. Dalip Singh and Mr. S. D. Nijhawan have tried to reclaim kallar (alkaline) soil at Lyallpur, Lalakaku, Montgomery and the Bara farm by the application of a mixture of gypsum and calcium chloride, and achieved some success. They reported that the soil permeability appreciably increases on this treatment after four years and the process of reclamation takes four years which is also the time required by the application of gypsum or powdered sulphur.

Molasses can also be used for this purpose. Alkaline lands have been successfully reclaimed near Cawnpore, Allahabad and in Mysore by the application of molasses at the rate of one to ten tons per acre and a good rice crop has been grown in these reclaimed areas where no vegetation ever grew. We have applied molasses in amounts varying from two to five tons per acre of alkali land at Soraon (near Allahabad) and at the Government Farm of Unao, and have obtained excellent results with rice. The Mysore Government has been able to obtain 1200 to 1800 lbs. of rice grains per acre of alkaline land, using one ton of molasses per acre on plots where crops failed previously.

Research work carried on in Allahabad, Bangalore, Java, Hawaii and other sugar-producing countries shows that molasses added to the soil along with carbonic acid and organic acids like acetic, propionic, butyric, lactic etc. are produced in the early stages in the decomposition and partial oxidation of the carbohydrates present in molasses. Consequently

the acids present in molasses and those obtained from the decomposition and partial oxidation can neutralize the alkali of the soils rich in alkali. Moreover, the carbonic acid which is produced in large amounts from the decomposition and oxidation of the carbohydrates, can convert the sodium carbonate into bicarbonate. Also in the process of the escape of carbonic acid from the molassed soil, the latter is rendered porous and its tilth is improved. The investigations at Allahabad show definitely that the moisture content of the molassed soil is appreciably higher than that of the unmolassed one. The lime, which is added to the soil along with the molasses, is rendered soluble by the organic acids formed from molasses and is helpful in the conversion of sodium soil into a calcium one. Moreover the small amounts of sulphuric acid present in molasses convert the soil calcium carbonate into calcium sulphate, which reacts with alkali and reclaims such soils.

Press-mud from sugar factories containing large proportions of carbohydrates and calcium compounds is also very useful in the reclamation of alkali and usar soils. Using one half to one ton of oil cake per acre, usar soils have been successfully reclaimed for rice cultivation.

DR. N. R. DHAR

[The suggestions contained in this paper are worthy of attention and adoption. I have no doubt that proper treatment and judicious use of our soil should allay all fear of dearth of food. — M. K. G.]

#### Milk Sweets

A correspondent writes:

"You know the position of milk in India. Here at Jamshedpur the population is about two and a half lakhs. Even if two and a half chhataks of milk was given to every one, there will be a daily consumption of 1000 maunds. Against this the Tisco dairy is producing 30 maunds of milk per day and we another 3. How much watered milk is supplied by the gawalas from door to door we do not know. But we do know that while the babies and expectant mothers and the sick are not getting milk to drink, about 50 maunds of milk is being daily used by the halwais for making sweets. Should rasgullas, pendas and similar luxuries be given preference over feeding bottles?"

Gandhiji has times without number cried himself hoarse over the question. In times like these it is criminal to waste a single morsel of food. Eating sweets is worse than waste. It harms those who eat them and it deprives others of the necessary foodstuff. It is the responsibility of the public to see that the practice is stopped immediately. All sweets prepared from milk should be banned till there is enough milk for the sick and the children. All conscientious people should take a vow not to touch such sweets themselves and persuade others to do likewise. The most effective sanction is that of public opinion. If the public realize the gravity of the situation and the viciousness of the practice which deprives the babies and the sick of their food, they will rectify it. Without an enlightened public opinion, artificial controls can serve no useful purpose.

Rawalpindi, 31-7-'47

## IS THE TRICOLOUR GONE?

(By M. K. Gandhi)

The Hyderabad correspondent writes:

"This flag was the mainstay of our struggle. The Constituent Assembly has committed a grave blunder by traducing the spinning wheel. The Ashoka Chakra has nothing in common with it. It is contrary to all that the spinning wheel stands for. Gandhiji's wheel has nothing to do with religion. The innovation is a sign of Hinduism. The spinning wheel is the sign of non-violent economics. The new one is the Sudarshan Chakra, a sure sign of violence. Thus, says Shri Munshi in his broadcast. Thus it is said Hinduism will be sustained by violence. A deliberate attempt is being made in that direction. This will never bring Pakistan nearer to us but will put it off from us."

I have not read the speech attributed to Shri Munshi. Assuming that he has expressed these sentiments, let us hope he does not represent the opinion of the masses. Pandit Jawaharlal, who moved the resolution on the flag, said definitely that the wheel which is undoubtedly a copy of the Ashoka wheel was meant to represent the spinning wheel. Maharaja Ashoka was a Buddhist and he represented in his person non-violence on which his edicts were based. He was the one Emperor who renounced the fruits of victory and attempted to rule by the force of love, not by that of the sword. One can thus extend the meaning not inconsistent with the original. Lastly, in my opinion, Sudarshan did not represent the force of arms. But I confess that here I am on debatable ground. All I can say is that if the present design does not represent the original and represents something contrary, my head would refuse to bow to the new flag. Let me hope that the correspondent is unnecessarily nervous about things happening around us.

On the train to Patna,

7-8-'47

(Adapted from the original in Hindustani)

## A DRAFT DECLARATION

(By M. K. Gandhi)

Shri Brijlal Nehru sends for publication the following draft declaration:

"Draft declaration to be signed by all members of the Public Service in India, Civil or Military, and by all candidates for the Service, whether Central, Provincial or Local, and by all applicants for other profitable jobs under these Governments and the members of the legislatures including the Constituent Assembly.

I hereby solemnly declare that

1. I am a subject of the Union of India to which I pledge my loyalty in all circumstances.

2. I repudiate the theory that the Hindus and the Muslims are two separate Nations and hold the view that all the people of India, to whatever race or religion they may belong, are parts of one Nation.

3. I shall so conduct myself in all my actions and speech as to strengthen this idea of One Nationality of all the inhabitants of this ancient and sacred land.

4. If at any time I am found guilty of a breach of this declaration, I shall render myself liable to removal from any office or post of profit that I may be holding at the time."

The wording may admit of improvement. But the spirit behind is surely admirable and worthy of adoption if we are to get out of unhealthy growth in the body politic.

On the train to Patna, 7-8-'47

#### RACES

( By M. K. Gandhi)

The following is the substance of a Gujarati letter published in the Harijanbandhu:

"During the rainy season races take place in Poona. Three specials per day run to Poona and back. This is possible when there is scarcity of accommodation, such that businessmen have to go in crowded cars. Passengers are often seen hanging on foot-boards at times resulting in avoidable fatal accidents. Add to this the fact that when there is not enough petrol, extra cars also run to Poona. Do not these passengers draw their usual rations in Bombay? Do they not get refreshments in the specials and on the race course?

"This reflection leads me to examine the Civil Service. Are not the men whose mismanagement we used to condemn before, running the State today? What are we coming to? We are without enough food and enough clothing. And we find ourselves indulging in costly amusements."

I have often written about the evils of racing. But mine was then a voice in the wilderness. The alien rulers liked the vice and clothed it with some kind of virtue. Surely, there is no reason for now clinging to the vice. Or shall we retain the vices of the rule and will its virtues quit with it?

There is much truth in what the correspondent says about the Civil Service. It is a soulless corporation. It acts after its master's manners. Therefore, if our representatives are watchful, if we insist on their doing their duty, much may be done through the Civil Service. Criticism is food for any democratic government. But it has to be constructive and wise. The original purity which marked the Congress in the beginning of the mass movement is the hope of the masses and must return if we are to live.

On the train to Patna

7-8-'47

(Adapted from the original in Gujarati)

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