EXTRACT.

The Reform in Indian Land Tenure.

By RADHA KAMAL MUKERJEE.

Cultivator's Right Sanctioned by Ancient Custom .-The present distribution of land in India is fraught with great economic and social danger. Throughout India the ancient custom and tradition laid down that the cultivator had a right to retain his holding so long as he paid a definite share of the harvest or the tax demandable from him. In Southern India, where most of the land is held by petty occupiers direct from the State, this custom has been respected from the beginning of the British rule. In the ryotwari areas in Madras the registered occupant of each field is entitled to hold the land for ever, so long as he pays his land revenue; and inheritance, transfer, mortgages, sale and lease are without restriction. Similarly in Bombay, as in Madras, a ryot is secure in possession of his holding, so long as he regularly pays the instalments of his land revenue and the right of occupancy, in the case of the ordinary survey tenure, is transferable by inheritance, sale, gift or mortgage without restriction.

Its Denial in the Zamindari Tracts.—But in Northern India, in both the permanently and temporarily settled districts, the tenants or ryots still lack complete protection. The zamindars being declared to be "Proprietors of the soil," landholders, land owners, in the legislation of 1793 it follows as a natural consequence from this and from the introduction of English ideas that the ryots have come to be looked upon as their tenants. Every prejudice arising out of Western notions of property and the relations of landlord and tenant in Great Britain was entirely on the side of the zamindari. There cannot be the least doubt that even in Bengal every settled cultivator formerly was entitled to be maintained in the quiet occupation of the land he tilled, so long as he paid the established quota of

land tax to the zamindar. This was a right inherent in the cultivator as sanctioned in the traditional land law, and did not in any way emanate from the zamindar as sudder malguzar. It was unfortunate that at the time of the Permanent Settlement the rights of the ryot were not defined at all. The Government was unable to ascertain them fully and accurately. Even Shore, in Minute of 1789, remarked:—"With respect to the ryots, their rights appear very uncertain and indefinite." The Government was also apprehensive lest enquiries into these rights should excite suspicion in the minds of the zamindars that the assessment of the revenue was not really meant to be permanent and it indulged a strong hope that zamindars and ryots would, as did landlords and tenants in England, adjust all matters of dispute between them by contract. Unfortunately, the subsequent regulations of 1799 and 1812, instead of conferring security of tenurs upon the tenant, left him pratically at the mercy of the zamindar. His property was rendered liable to distraint and his person to imprisonment if he failed to pay his rent however extortionate it might be. It was only in 1859, that we witness the enactment of a law restricting the zamindar's power of enhancement in certain cases. The landlords of Bengal profiting by special rules made in favour of auction purchasers and devised to protect the Government revenue, persistently and with the sanction of the courts enhanced rents and ejected tenants arbitrarily, thus denying to the ryots the security which they enjoyed according to ancient custom and which it never was the intention of the Government to abrogate at the time of the Permanent Settlement.

Stages of Tenant Protection in the Provinces:—Tenant protection is now sought after the model of the Bengal Tenancy Act, 1885, which secured the status and privileges of all classes of tenants in Bengal, including Bihar and Orissa. This act provides that every ryot who has held any land in a village for twelve years acquires therby a right of occupancy, and 80 or 90 per cent of the occupants have such right. The non-occupancy tenants cannot be ejected excepting in execution of the decree of a competent court nor can their rents be enhanced at

shorter intervals than 5 years. In the province of Agra, the 12 year period of continued possession formerly constituted the basis of the acquisition of occupancy accrued without any trouble or harassment. In Agra the increase of occupancy areas was slow and uncertain, and was accompanied by chronic litigation.

In the new Tenancy Act for Agra, the 12 year rule has been abrogated and for non-occupancy tenants a life interest has been granted with a succession of 5 years, as in the case of statutory tenants of Oudh. The position of tenants in Oudh is exceptionally weak though there is no doubt that the recent Oudh Rent Act contributed largely to ameliorate their condition. This accounts for a chronic discontent among the peasantry which lies below the sur-The British Settlement officers feel that the rights and privileges which have now proved inconvenient for land reform. There cannot be any doubt whatsoever that the landowning classes of Oudh will find it to their interest to give adequate protection to the tenants. As time elapses, the socalled statutory tenant will claim and be granted occupancy rights by prescription, perhaps a beginning in this direction will be represented by the principle that a statutory tenant may acquire occupancy rights in land cultivated year to year without a lease for at least 12 years. Similarly in the case of nonoccupancy tenants in Agra, permanance and heritability are the incidents to which the present life tenure will assimilate itself sooner or later as a result either of enlightenment among the landlords or of acute discontent among the tenantry.

Another direction of reform lies in the restriction of accrual of sir rights for the landlord both in Agra and Oudh. The justification of sir rights mainly lies in the advantages of superior cultivation by the landlord who commands larger capital and shows greater initiative, Thus sir rights ought not to be allowed to accrue beyond the extent to which the landlord's family can cultivate the holding without importing into it permanent outside labor. On a similar principle there are graver objections to the letting of sir land. Sir rights are incompatible with the lease of the land. The same principle will apply in the case of zamindars of Madras presidency who usually have

home-farm lands over which they possess complete rights. As regards the rent rates, the principles now adopted in the recent tenancy legislation of Agra and Oudh are sound. Rents are now fixed at Settlement, the periods of which differs in various provinces, and the Settlement or Ryot-year officer has power to reduce exorbitant rents. The rents can be enhanced at fixed intervals and the rates fixed by the Roaster-year officer govern all the rent suits for the determination of rents. There is little doubt that the special machinery devised in Agra and Oudh will be in closer touch with the local economic data on which alone fair soil rates, district by district, should be based.

Arbitration of Rent Disputes:- The great disadvantage of State machinery for the adjustment of rents, however, is its inelasticity and complexity of procedure. Perhaps a move in the right direction will be represented by the formation of arbitration tribunals whose procedure will be much simpler and whose decisions will be quicker and more acceptable than the decisions of courts and revenue authorities. Japan, by law passed in 1924, has laid down regulations for arbitration in the matter of tenancy which may be adopted with excellent results in the permanently and temporarily settled tracts in India. In Japan, when a dispute arises on the subject of the amount or of other questions connected with rent the parties may present a request for arbitration to the provincial tribunal, which can deal directly with the question, submit, it to an arbitral commission, the latter to be composed of a president and of at least two arbitrators. If on the day of hearing the parties have not come to an agreement, the tribunal or commission as the case may be, must pronounce its decision; when this decision comes from the commission, it must be submitted to the tribunal for ratification.

In Bengal, Bihar and Orissa, the disposal of rent suits is left in the hands of the civil courts. Now the number of rent suits filed each year in many districts is increasing considerably. In one district as many as 17,565 rent suits

were filed in 1918, in almost every case for three years" rent of holding. It means that every year the rent of 50000 tenancies fall into arrear and ultimately has to be realised by the civil courts. On the whole, the number of tenancies in the district the rent of which may be expected to be realised by suit if it falls in arrear has been estimated at rather under 3 lakhs. The civil court procedure is both expensive and dilatory and the tenants also put forward every device they know to gain time. An alternative method is necessary. Whether the matter should be left in the hands of the revenue officers or to special land courts depends upon local conditions, the character of the land-lords and the degree of education of the tenants.

Advantages and Drawbacks of Produce-Sharing. Similarly, the produce-rent system which is now everywhere discouraged in India as being an engine of oppression of the tenantry, need not be discountenanced altogether. In Bihar the produce rent system is more prevalent than else where because the zamindars have played their due part in the construction and maintenance of private canals, channels and embankments. Moreover, the produce rent represents an automatic adjustment to rural economic conditions. From 1859 the enhancement of existing cash rents in Bengal and Bihar was not so easily affected as hitherto, and since 1885 it has been comparatively difficult: Since the Bengal Tenancy Act become law, Bihar zamindars generally have been endeavouring to obtain producerent for as much land as possible. There is no necessity here for the institution of suits for the enhancement on the ground of rise in prices and to the full extent of the rise. The tenants however, generally detest the appraisement system which gives at each harvest occasion for friction with landlords; among the petty estates the system does not work as great hardship as in the larger ones, The system undeniably gives opportunities to speculative purchasers in Bihar to annul for practical purposes all the protection which agrarian legislation has afforded to occupancy ryots, of which advantage sometimes has been taken. Apart from this, the inter dependence of irrigation and produce rents in many cases produces a happy result. Where rent is paid in kind the land-

lord who neglects his liabilities in respect of irrigation works will at once feel the result in his pocket; these high rents do give him a direct inducement to do his duty. In fact the introduction of commutation has in many areas led to the neglect of irrigation works and the ryots are now beginning to realise that the conversion of produce rents into money rents has not been altogether beneficial. Although there is a stipulation that the landlord can realise the fixed money rent only as long as he maintains, the irrigation system in order the result in practice has been that he seldom does this. Thus the benevolent intention of the Government is a pious wish because the ryots are unable to seek the remedy in the court. There is doubt that the prosperity of large tracts in Tuscany and Southern France are due to Metayage. Share Tenancy agreements in Italy testify to the close economic partnership between the landlord and tenant assured therby; the landlord supplying the machines, livestock and an adequate working capital in conformity with the requirements of scientific agriculture, whils the tenant supplies adequate agricultural labour. The produce is divided usually in exactly equal shares as in India. The produce rent system assures to the tenant better protection against the uncertainties to which Indian agriculture is particularly liable. It may be conducive to greater co-operation between the landlord and the tenant if only there is organisation to protect share tenancy. Thus when the landlord gets a money rent instead of his share of produce, he absolves himself of all risk and trouble which are shifted to the tenant. Absenteeism then follows as the next step. Recently Portugal has passed a law which deels with the form of payment of rent for rural lands. It lays down that in the case of those contracts for the letting of rural lands, for which it is stipulated that the rent must be paid in cash whatever the duration, from and title of the lease, one moiety of the rent shall be paid on the respective dates of expiry in cash and the other in kind if the lesser or the lessee should so demand. It is laid down that the commodities contemplated are those which are derived from the cultivation usually predominant on the lands leased; and their value unless it is otherwise agreed up on by the parties, shall be calculated on the basis of the year in which the lease was concluded.

LIBRARY
TNAU, Coimbatore - 3
000025976

Rent On Uneconomic Holdings: - In the congested parts of Bengal, Bihar and the United provinces the section of the Tenancy or Rent Acts which gives the ground for an enhancement of rent by the landlord due to a rise of pricesalso needs amendment Population has multiplied and the holdings owing to continuous fractionalisation, have become uneconomic. Tenants therefore, who have no surplus agricultural produce for sale do not benefit from a rise of At the same time the competition for land tends continually to raise rent to a higher level than the holdings There is need accordingly for some dicrimination between economic and uneconomic holdings in the assessment of rent by the Settlement or the Roaster-year officer, Obviously the ground for an enhancement of rent due to rise of the price-level is not applicable to uneconomic holdings.

Legal and Economic Measures of Consolidation .-Intensive enquires in the villages of the Indo-Gangetic Plain indictate that this problem is very serious. Nearly half of the tenant population in villages possess holdings whose size is below the subsistence limit of three acres. Again the unprotected tenant occupies everywhere smallersized plots and pays higher rent than the protected tenant. Naturally most of these unprotected tenants belong to the fluctuating class, tenants one year and laborers the next. The holdings are too small and the rents too high to retain permanent tenants. Hence the question of fair rents is closely related to the problem of economic family holdings. We have already discussed the need of tentative legislation in this direction which would compel all villagers to accept restripment when a majority desires it. the death of the cultivator, a preferred heir could succeed as in Germany and compensate to the other heirs. The introduction of economic holdings is however impossible so long as there are protected and unprotected grades of tenants or again, where agriculture is so much dependent upon rainfall that holdings have to be scattered in different soil areas to minimise the risk of agriculture. In densely populated regions a forward scheme of consolidation would also involve expropriation and widespread distress in the

absence of better opportunities of emigration and industrialism. Thus the whole problem of consolidation is connected with the reform, not merely of the land and revenue but also of the present day practice of Indian farming.

The maintenance of the small family holding however no longer can be left either to voluntary mutual transfer or to cooperative consolidation, but must be tackled by legislation. Throughout the country wherever the land is fertile the constant subdivision of the property that takes place tends to make the income derived from the holding less and less adequate for the needs of the family. The climax of absurdity has been reached in many districts of the Punjab, the United Provinces, Bengal Bihar, Orissa and the Madras Presidency where the average size of the holding is hardly more than an acre or two. A forward scheme of consolidation is the crying necessity of Indian agricul-First the economic cultivation unit must be determined region by region, and the law should protect this unit against further subdivision. The extent must be such that a family of medium size can cultivate it effectively and in any case it must not be less than three acres. There will be enormous social and legal difficulties to overcome before an economic family holding of this size can be constituted. But if such difficulties cannot be faced today they may be overcome a few decades hence. Sooner or later the contry must adopt compulsory restripping operations so as to establish an area suitable for normal small The incredibly small scale in which cultivation is now carried on can hardly be called normal farming. Therefore the anialgamation of small holdings., provided the total area does not exceed the size of economic cultivation unit, must be deemed a necessary return to the normal. Each cultivator participating in the restripping might receive, out of the regrouped area in exchange for his old property an area of laud of equal value and equal quality with that which he possessed before the exchange. At the time of restripping, the law might also affect the liquidation of all easements and the regulation of roads and paths as well as the provision of a general constructive plan for the rural unit created by the restripping of the land.

Purchase of Zamindari Rights on Behalf of Tenantry:-To secure land and provide money for such a programme legislation might also be necessary for dividing portions of zamindaries or great estates among peasants and landless men. Agrarian reforms on such lines has been effected by drastic legislation in most countries in Central and Eastern Europe. In Ireland and Scotland such reform was made at an earlier date by a series of cautious landlaws. The Irish Land Act of 1909 and the Scottish Small Holders Act of 1911 have a compulsory clause authorising compulsory acquisition of land for the purpose of constituting small holdings. In Ireland the Act allows the landlords to sell their rights in land-held by the tenants for a guaranteed price paid by the government, and the tenants to buy their farms, paying for them by easy instalments. If the owner does not accept the final offer of the Estate Commissioners the land is acquired compulsorily. Similarly land in West and South Ireland may be requisitioned by the Congested Districts Board.

In Bengal and Bihar expropriated zamindars might be compensated in a similar manner; while the new small owners could be allowed to pay by easy instalments at least part of the price of the land they needed, The Government would advance the amount for the expropriation and be repaid by the purchaser by means of annual repayments to include interest and a quota of the repayment of the principal. Easy and cheap facilities of the credit should also be supplied by the State, so that the tenant might start work on his newly acquired holding without any handicap of indebtedness. The problem is very urgent and an early solution is imperative. If the experience of small agricultural countries of Europe is to have any lessons for us, the solution lies in legislation aiming at the preservation of the greatest possible number of independent holdings; first, by preventing any land belonging to the peasantry being added to the landlord's estate; secondly by providing against holdings being reduced by the detachment of parcels, below the limit which in existing circumstances must be considered necessary to ensure that a family shall find a full occupation upon them; and thirdly, by compulsorily acquiring land from landlords or undertenure-holders who hold large estates and who would be compensated by the State. The State should obtain a portion of the compensation cost from the new owners in easy instalments.

In Madras and in Bombay the introduction of special legislation to promote restripment and consolidation should be least difficult, because questions of tenancy right do not there complicate the situation as they do in the North. Indeed, preliminary experiments in restripping and amalgamation should meet hardly any difficulties at all in Bombay and Madras where even now the village panchayats have kept alive the tradition of mutual transfer of holdings. The assessment of a fair land revenue which does not encroach upon cultivator's standard of life and comfort would thus be facilitated. It should be determined by the same principles which govern fair rents in the permanently and temporarily settled tracts. The State in estimating the net produce should make a liberal allowance for the true and full expenses of cultivation, the labour of the cultivator and his family, depreciation of agricultural capital and insurance against the inevitable risks of agriculture in the Indian climate; it also should return the land revenue in the form of benefits which may increase the efficiency as well as the comfort and amenities of life of the cultivator.

(From Indian Journal of Economics January 1929).

To be continued.

Chemical Alarm Clocks Arouse Sleepy Plants.

[Tubers, shrubs and flowers begin their natural activity ahead of Nature's schedule in response to chemical accelarators.]

By A. E. BUCHANAN, JR.

"Beautiful Spring" has long been credited with a mysterious vital force which annually awakens dormant plants, inspires the sap to flow with fresh vigor, and clothes the drab winter world in a new dress of tender green. Leaving this phase of seasonal change to the poets, science has turned its searching scrutiny on the flowers that bloom in the spring, tries to seek the modus operandi of spring's miracle and has found that certain chemical substances possess the remarkable property of awakening dormant plants and stimulating very appreciably their early development.

So effectively does the chemical alarm clock cut short the rest period prescribed by Nature that lilac can be made to bloom at Christmas time, and potatoes, exposed to vapors of ethylene chlorohydrin gain from two weeks to two months growth on the untreated tubers planted at the same time. The discovery is an eye-opener for potatoes, of course, but none the less for horticulturists and scientists who see great possibilities in its commercial development, as in forcing the early blooming of certain potted plants which are favorites in the florist's trade.

Chemistry has played an important role in the production of artificial fertilizers which supply plant food in readily assimilable form. This new application of chemicals to the initiation of growth, however, has no direct relationship to fertilizers, for the substances employed are apparently not utilized directly as food and produce results seemingly out of proportion to the energy they could furnish even if they were absorbed and oxidised. The how and why of this synthetic springtime is thus far limited to the general hypothesis that the chemical treatment induces some internal physiological condition which leads to the renewal of growth.

As far back as 1896, botanists have known that chemical treatment of certain dormant plants induces growth, but it is only recently that the phenomenon has been elevated by intensive research from the status of a scientific curiosity to that of a commercial process. Lemons, for example, are now quite generally subjected to ethylene gas to hasten the development of the desired yellow color.

Although the fruit is commercially mature when harvested, it may have considerable amounts of green color in the rind which is gradually replaced by yellow, if stored under favourable conditions. Concentrations of ethylene at as low as one part to 1000000 parts of air hasten the coloration, although one part in 5,000 is generally used commercially in order to make up for loss of the gas by diffusion. While the mechanism of this phenomenon is not understood, it has been found that the presence of ethylene stimulates the life process of the fruit, the rate of production of carbon dioxide from the respiration of the fruit being doubled and even tripled in 48 hours by exposure to air containing ethylene.

The latest and most spectacular results in this unique field have been achieved by Dr. F. E. Denny, botanist of the Boyce Thomson Institute for Plant Research of Youkers New York. Approaching the study with the thoroughness and care of the true research worker and armed with a broad background in botany and chemistry, he has accomplished wonders in the artificial stimulation of growth.

Potato growers know that good seed potatoes are those which have been stored for several months. Freshly harvested tubers germinate slowly and produce inferior stands, even if climatic conditions are favorable because such tubers are in the "rest period". After experimenting with 250 different chemicals two substances were found which effectively curtail this period of dormancy-sodium thiocyanate and ethylene chlorohydrin. Two methods of treatment with ethylene chlorohydrin have proved successful application in solution and as a gas.

In the first method, or chlorohydrin dip, the cut pieces are dipped into a solution made by mixing 30 cubit centimetres of 40 per cent ethylene chlorohydrin and 970 cubic centimetres of water; then storing them in closed containers for 24 hours and planting.

The vapor treatment may be used on the whole potato by placing the seed potatoes in slatted crates in a room that is approximately air-tight. From one quarter to one gallon of 40 per cent ethelene chlorohydrin per 1000 cublic feet of space is evaporated into the room by means of an electric fan, and the potatoes are allowed to remain in contact with the vapors for 24 to 28 hours. Potatoes thus treated when removed from the gas room and allowed to stand in air at ordinary temperature will develop sprouts in 7 to 10 days.

As far as the cost of treatment by either method is concerned, this should not exceed five or ten cents per bushel of potatoes. Although sodium thiocyanate is poisonous, its handling involves no more danger than the handling of poisonous insecticides and if the treated tubers are protected from animals and the left over solution promptly disposed of there should be no hazard in its use.

Another remarkable effect in the germination of potatoes is that of greatly increasing the number of sprouts per seedpiece by soaking the pieces for one hour in a 2 per cent solution of thiourea. This results in a larger number of smaller potatoes per hill, which is desirable in raising tubers for seed.

Ethylene chlorohydrin and ethylene dichloride have been found to awaken such woody plants as lilac, crab-apple, Deutzia, et cetera, from the rest period that ordinarily postpones their flowering in hot houses until February, so that they bloom before Christmas. The plants are placed for about 24 hours in a closed chamber in which a measured amount of the chemical is evaporated by means of an electric fan. About 10 cubic centimeters of 40 per cent ethylene chlorohydrin solution per 100 liters of space give favourable results with most species, although some species respond to as little as 0.75 cubic centimeters. Ethylene dichloride in like amounts is equally effective. Strong concentrations of vapor cause the buds to develop more leaves but fewer flowers while low concentrations seem to produce flowers at the expense of the leaves.

(From Scientific American for February 1929).