

to help yourselves by developing habits of economy and prudence; you acquire self-reliance and all this makes you lead better lives." The influence which the working of the Co-operative Credit Societies so far, has produced is great. Experience has been gained in managing societies—the ways to success and the causes of failure. Credit societies do not involve much risk. Agricultural societies require more careful nursing. A band of a dozen co-operators out of a total number of 200 in a Co-operative Society can work wonders if the dozen are prepared to work and not merely help in passing resolutions. It is from small beginnings that agricultural co-operative societies of large dimensions have sprung up in Germany and Ireland. In view of the resolutions passed by the Board of Agriculture and the statements made by responsible members of Government, official help will be largely given for the formation and financing of these societies and for the expert advice needed. It is for us to act.

### **Notes on some agricultural practices in South Canara.**

In Agriculture one improvement sometimes leads to another. The introduction of Mauritius sugarcane into the South Canara District has created a demand for a better water-lift than the one now in use. Probably most people know that the South Canara water-lift is a small picotah, in which the leverage is applied by two or three people holding on to ropes fastened to one end of the cross-piece and leaping backwards into a hole. I saw yesterday a new lift introduced by a cultivator (Roman Catholic Christian) who had seen it in Bombay. Two buffaloes turn a large wooden horizontal wheel with cogs in it. These engage with similar cogs in a vertical wheel. The vertical wheel is attached to a long shaft, extending over a shallow tank, and at the further end of the shaft is a large wheel furnished with kerosine tins fastened to the outer circumference with ropes. In the centre of the wheel is fixed a large wooden trough, into which the water falls from the tins as the wheel revolves. It is said that, in a working day of six hours one acre of sugarcane can be irrigated by this means. The apparatus was very roughly constructed, and the tins were in a very

dilapidated condition. The owner told me that he was intending to make a better lift on the same principle next year. The cost of working was about 6 annas a day less than the cost of irrigating the same area by the local picotah, and the cost of the machine itself about Rs. 85. It requires only two boys to work it, one to drive the buffaloes and one to guide the water, while the picotah requires two men and three boys. In another village where Mauritius sugarcane cultivation has been extending I saw today for the first time in this District, an over-head picotah of the same design as one sees on the East Coast. The owner told me that this picotah raised twice the amount of water that the local picotah did, as the bucket was larger and it was lifted much faster. The drawback to it is that it requires four good male coolies to work and these are scarce at the present time, and demand 5 to 6 annas a day. I think myself that there is scope for the ordinary bullock-mhote in some parts of the District. Sugar-cane cultivation is extending, and would extend more if it could be watered in the hot weather and I am in consequence giving Mr. Sampson a good deal of trouble about this question.

M. E. COUCHMAN,  
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### **Revised Courses at the Agricultural College, Coimbatore.**

A brief outline of the changes which are to be made in the teaching given at the College may be of interest to some of our readers especially as the new course has received the approval of the Board of Agriculture for India, and is being brought into force at once. It is based on rather revolutionary ideas of the teaching of agriculture, and has been brought about by the staff themselves, with a view to increase the efficiency of the college. It aims at first putting the student in touch with agriculture, with agricultural ideas and methods and agricultural practice, and then giving him a training in science which will enable him to understand the causes underlying the facts he has already grasped, and which will appeal to him therefore, the more strongly. Under our present system, when we teach first the pure and then the applied science and then agriculture, we are, so to speak,