

tenance of which party organization shall be directed." Even assuming this Arcadian picture to be true, the primary elector would have delegated to the caucus not only the choice of his man but the compilation of his code of principles, and self-government could hardly be any longer called "direct." But has the example of America been entirely lost upon the British Liberal? Has he not learned from it that the control of the machine inevitably falls into the hands of those who devote themselves to politics as a trade; and that those who devote themselves to politics as a trade are, in nine cases out of ten, low intriguers with purely selfish aims. When you breathe this apprehension to a British Liberal he tells you that you have not sufficiently taken into account the good sense and solid qualities of the British working-man. Let the British working-man be as sensible and as solid as he will, he cannot understand a craft to which he does not give his mind or fail in the end to become the tool of those who do. Ten years hence this will be manifest, but then it will be too late. The machine will be in full running order, and the wire-puller will be completely master of it, while the respectable and independent men, finding themselves reduced to cyphers, will have ceased to attend the meetings of the caucus and withdrawn from politics in despair. In one respect the system is fraught with even greater danger in England than in America: the division into States prevents any single politician from becoming boss of a whole national party; but in England, at the centre of this vast spider's web of caucuses, sits Mr. Joseph Chamberlain, the able and astute organizer of the whole. He has too much tact to dictate, or at least to be caught dictating, but he has his confederates everywhere, and everywhere, we may be sure, the nominations will be largely governed by his wishes. There are more ways than one in which a nation may lose its liberty.

THE case of a leading English politician who has got into the Divorce Court, and whose constituency has in consequence been feeling qualms as to his re-election, has raised once more the old question about the relation between public and private character. The problem, it seems to us, is not correctly stated in those terms. A man cannot have two characters—one private and the other public: he must always be the same man, and his disposition in all spheres must be the same. If he is dishonest and mendacious in private he will be equally dishonest and mendacious in public; such, at least, will be his tendency, though it may be curbed by publicity and the other restraints of public life: you cannot trust him in one line of action any more than you can trust him in the other. The real question appears to be, What effect is produced on the general character by a particular class of vices, and especially by sexual licentiousness? Can a man be dissolute in his habits and at the same time a man of honour, a patriot and trustworthy as a public servant? It is not easy to give a precise answer to that question. Somers, though licentious, was the most upright of public men. Walpole, who kept a mistress, and encouraged orgies at Houghton, was, a very good minister, and gave the country sound finances and a long peace, though he corrupted public life and went, against his conscience, into the war with Spain rather than resign his power. Fox was a gambler and a patriot; but the recklessness of the gambler was visible in his public conduct, and did much mischief to his party and the country. In the eighteenth century, if licentiousness had been a bar to public employment, it would have been difficult to fill the offices of State. The best of our early kings, Edward I., was also a model of domestic virtue, and if Parliament, as a permanent and organized institution, was the monument of his magnanimous wisdom, Eleanor's Crosses were the monuments of his pure and constant love. From his figure, if the eye is carried down the line of great and beneficent statesmen, it will be found that they have generally resembled him in both parts of their character. This is eminently true with regard to the leading Puritans, and notably with regard to Cromwell himself; while the best of the Cavaliers, such as Falkland, Hyde and Bevil Grenville were Puritans in morals. To exclude or expel a man from public life because he has once yielded to passion would be extravagant, and the people of the United States have shown their usual good sense in putting their best man at their head, notwithstanding the single blemish on his moral character, his manly and becoming avowal of which showed that there was nothing wrong in his heart. But history teaches that it is wise to choose for the service of the State characters sound in all their parts, and that public virtue of the highest kind is seldom divorced from purity of affection.

THE friendship formed by Emerson and Carlyle at Craigenputtock lasted during their lives. There is an unpublished legend to the effect that on the one evening passed at Craigenputtock by Emerson, in 1833, Carlyle gave him a pipe, and, taking one himself, the two sat silent till midnight, and then parted, shaking hands, with congratulations on the profitable and pleasant evening they had enjoyed.

## EXPERIMENTS IN DAIRYING.

THE growth of the butter-making industry, in which Canada has hitherto possessed an unsavoury reputation, has been very slow—in fact until within the past few years there was, if anything, actual retrogression. Of late years, and chiefly through the encouragement given by the Ontario and Quebec Governments, the attention of the public has in hopeful measure been directed to the great possibilities that may be in store in the hitherto neglected industry, and at any rate the agricultural community has been aroused to the necessity of very much improvement in methods, if butter-making is to occupy an important position in the economy of the farm. The midsummer report of the Ontario Experimental Farm will do much to deepen the interest in this department of farming, and also to open for future experiment many novel and interesting questions having apparently a very practical bearing on dairying in general. The results achieved in the practical work of cheese and butter factories are invaluable, but much more knowledge is wanted than can be hoped for from business interests in which experimenting must be strictly subordinated to considerations of immediate profit. It is to the Experimental Farm, where expense is very properly subordinated to the making of experiments as full and exhaustive as possible, that we must mainly look for light on the many intricate problems yet to be solved in connection with the production of butter and cheese, and judging by the contents of the midsummer report of the farm, we are not to look in vain, for though not a few of the experiments do not appear conclusive, there are so many carefully elaborated results presented as to make the report one of the most valuable and interesting that has yet been issued by the farm authorities. The experiments have been chiefly directed to such practical questions as the merits of setting at moderate and at low temperatures, to the use of the centrifugal separator, the quality of milk, cream and butter, the merits of different breeds of cattle as milk producers, the advantages respectively of winter and summer dairying and the superiority of permanent pasturage over ordinary methods of feeding.

Very interesting are the differences obtained from setting milk at the ordinary temperature of 60° and setting at 20° lower. The remarkable fact is well established that the average production of cream from seven different breeds, under almost equal conditions, was in winter 72 per cent. greater in milk set at a temperature of 40° than at a temperature of 60°, the percentages of cream being respectively 8.8 and 15.1 per cent. Even more remarkable is the comparison in this respect in the cases of several different breeds. Jersey milk at the lower temperature yielded 19.2 per cent. of cream but only 11.2 per cent. at the higher, while Ayrshire, which at 60° gave only 9.5 per cent., at 40° yielded 18.7 per cent. or almost twice as much. The difference shown in Holstein milk could not have been conceived possible prior to these tests. At 60° this milk, exposed for 24 hours, averaged only 1.9 per cent. of cream, but at 40° gave 10 per cent., or more than five times as much. The summer results showed much smaller differences and a considerable increase in the percentage of cream, especially at the higher temperature. The differences prove that skim milk as ordinarily obtained, and especially from Jersey, Ayrshire and Holstein cows, is still rich in butter-producing materials. How to extract this richness without the trouble of using ice, or having a specially constructed dairy, appears to be in measure solved by the use of the centrifugal separator. This machine secures as winter yield 13.6 per cent. of cream against 8.5 per cent. with deep setting at 60°, but it fails to obtain quite as much as setting at 40°, at which temperature 15.1 per cent. of cream is extracted. The experiments, however, showed that the centrifugal obtained 23 per cent. more cream from Galloway milk than setting at 40°, and 19 per cent. more from Holstein milk. In summer the centrifugal failed to obtain as satisfactory results as in winter—showing only 11 per cent. of cream against 16.2 at low temperature setting and 12.1 at 60°. The smaller results of the centrifugal in summer—the most important season for the dairyman—by no means condemns the centrifugal, for chemical analysis of the cream from the Shorthorn grade shows that centrifugal cream contained 39.4 per cent. of fats against 22.9 per cent. in cream obtained by setting at 40°. Thus, bulk for bulk, cream obtained by the centrifugal should yield six pounds more butter from 100 pounds of cream than cream raised by deep setting. This result appears likely to encourage attempts which have recently been made to introduce into Canada the Danish system of butter making, in which the centrifugal plays the essential part. As these machines are now sold in England for little more than \$100, the prospect of their extensive use in Canada appears hopeful.

An interesting conclusion drawn by Prof. Brown from analysis of summer and of winter milk is that "summer conditions have added only about one per cent. more water, slightly reduced the fat, and added one-half per cent. to the other solids. So that all over, variety of food and physical