

Co-Operation in the United Kingdom.

The co-operative societies of the United Kingdom held their annual congress at Bristol recently. The president, in his opening address, said that he looked with the greatest satisfaction at the marvelous and rapid strides that co-operation had made in most parts of England and Scotland. He was greatly pleased to note that co-operation was taking a very firm hold on the people in South Wales. Indeed, he ventured to prophesy that Wales would soon rival Northumberland and Durham in the universality of co-operative spirit and practice among the workpeople. In the west of England they had had a great amount of opposition to fight against in the past. At one time co-operation was only not understood, but it was misunderstood and misrepresented. The wealthy classes believed it was opposed to their interest, and the civil law afforded it no protection. Nevertheless, co-operation had at last become a power in the state. It was now a state within the state, and at the present day, instead of the wealthier classes being opposed to the movement, they had dukes, marquises, noble lords and stately bishops, wise statesmen, and eloquent ministers of all denominations coming on to their platform and speaking of the movement in the highest terms. Referring to the fact that the general improvement which had taken place in the education of the people had been of great advantage to the co-operative movement by enabling them to understand it more clearly, he argued the co-operation was the true panacea for the terrible conflicts between capital and labor.

A less confident tone marked the portion of the president's address in which he referred to the relations between co-operative distribution and co-operative production. He said it was right for workmen to start workshops of their own, so that they should reap the fruits of their own labor, and that the wholesale society should render them all the assistance it could by purchasing from them what it did not produce in its own workshop. But he hoped the day was not far distant when the wholesale society would produce all it required, and he hoped the societies would support them in doing this, for it was far the best and most equitable method of co-operation. The wholesale society had become a mighty power for good. They had now 994 societies federated together, representing 821,600 members. Their trade in 1892 amounted to £9,182,822, and their capital, share and loan, amounted to £1,424,551. They employed 5,100 people, and paid in wages £8,788 a week.

The president said that he was surprised at co-operators supporting middlemen, remembering their experience in times gone by, and was afraid that many who joined their ranks did not understand the meaning of the word co-operation, or they would be more consistent and would give the movement their entire support. After all, individual co-operators were the proprietors of the wholesale. They had done well, and would do much better if it were not for men who were continually crying out that they were not on the right lines. They all ought to pull together, and their opponents might then as well attempt to stop the tide as to check their onward progress. Referring to the statement sometimes put forth, that the profits made belonged to the workmen, and not to those who found the capital and found the trade, without which two powers no society could exist, the president said that he always understood their movement was for the greatest good of the greatest number, and that the way to make it so was to divide profits on consumption. The wholesale and the stores did not pay on an average interest at the rate of 5 per cent., but some productive societies and industrial partnerships paid 15 per cent. or more. This excessive payment for the use of capital was a much more severe tax on the working people generally than the loss of bonus was a deprivation to them. The wholesale society was not established only for some 990 workmen, when

they were on an average earning three times as much per week as some poor laborers were, but was established for the benefit of every co-operator.

As will be seen by reference to the above remarks of the president of the congress, the co-operators are still far from the real goal of the movement, which is co-operative production. It is still true, as it has been for years past, that the commodities distributed through the store system are largely purchased from ordinary producing establishments. This fact is reflected in the president's expression of the hope that the day will not be far distant when the wholesale society will produce all it requires. This stage is still in the domain of expectation rather than of realization, or, to put it more briefly, co-operative production lies still in the future as far as the United Kingdom is concerned. Doubtless some progress is being made, but the advance made since the movement was inaugurated has been so moderate, at least as far as co-operative production is concerned, that it should have the effect of infusing a corresponding moderation into the future predictions of confident promoters of economic and social reform.—*Bradstreets.*

Facts About Tapioca.

The plant from which tapioca is obtained is native of South America, and cultivated extensively in Brazil as also in many parts of the East Indies and Indian Archipelago, says a contemporary. It is a woody plant, with slender stalks, and grows to the height of about eight feet, and is known as the Cassava or manioc plant. It has smooth, palmated leaves, and bears small, green flowers, which grow in clusters, with an immense sized fleshy root, sometimes weighing as much as 40 or 50 pounds. The plant belongs to a highly poisonous tribe and is itself one of the most virulent of the species. This poison is found more particularly in the juice of the plant, a small quantity killing birds, quadrupeds, and even man himself, causing cold perspirations, great swelling and convulsions, generally ending in death; but this deleterious substance is so highly volatile if exposed to heat, or even the open air for about two days, that its property is entirely dissipated.

A Surinam physician administered it, by way of experiment, to dogs and cats, which died after 25 minutes in dreadful agony. Dissection proved that it operated by means of the nervous system alone—an opinion confirmed by 36 drops being given to a criminal. These had hardly reached the stomach when such torments and convulsions ensued that the man expired in six minutes. Three hours afterwards the body was opened, when the stomach was found shrunk to half its natural size, so that it would appear that the poisonous principle resides in the volatile substance, which may be dissipated by heat, as, indeed, is satisfactorily proved by the mode of preparing the root for food.

The root from which tapioca is prepared is of rapid growth and comes to perfection in six months, and somewhat resembles a huge parsnip. It is then taken up and washed, and the rind, which is of a dark color, peeled off; then grated or ground into a pulp, and the pulp submitted to pressure, by which the juice is expressed and preserved. The meal or pulp that remains in the press being dried is called *casaque*, and is made into bread or cake, which is called cassava bread. The expressed juice, after being allowed to stand, deposits a white powder, which, after being well washed and dried, constitutes what is called tapioca flour or Brazilian arrowroot, and by the French, *moussache*. All the products of the root are nutritious and easy of digestion. The natives frequently ferment the expressed juice with molasses and form an intoxicating beverage called *onycan*, that supplies the place of wine and beer of the temperate climate. When the climate is favorable, the plant is of

a hardy nature and easily cultivated. It requires a dry situation and the land to be of good quality, and will not well yield on the same ground two successive crops. The mode of planting is from cuttings, and a little moisture is needed by the plant at first growth. There are nine different species enumerated by botanists but two only of which are cultivated for human food; they are known as the bitter cassava and the sweet cassava. The two roots are very similar, the first by far the most poisonous, the only perceptible difference between the two roots being a tough ligneous cord running through the centre of the sweet cassava root, which the bitter variety is wholly without.

The Aroma of Coffee.

The aroma of coffee develops especially during the process of roasting; its fatty oil oxidizes, is burned, and is changed into essential oil, or caffeine, a species of ether that cannot be isolated by distillation, and which we can sometimes see with the naked eye on the surface of the ordinary infusion. But coffee, like many other natural products, such as wine, tobacco and cocoa, requires a certain length of time after being gathered before it reaches its full maturity. Experience has shown that the development of its aromatic principle is required by keeping it in a green state from one crop to another. But it is well known that for about the last half century the caffeine seems to be lacking in the infusion of coffee, which has no longer the exquisite qualities due to its aroma. If, now, on one hand, we consider that the production of coffee is necessarily limited by the conditions of climate requisite for its growth, and that, on the other hand, the planter, in order to supply the demand which is constantly on the increase, is now obliged to deliver the crop as soon as it is gathered, we can do nothing but infer that the cause of the degeneration of coffee lies in the fact that it is supplied to trade too soon, while it has not yet developed its constituent principles, and particularly in caffeine.—*New York Herald.*

Montreal Iron and Hardware Market.

The jobbing houses report a fair business in shelf goods, wire screens, nails, etc., in a jobbing way, but in heavy material the market is decidedly quiet.

In pig iron, despite the fact that warrants have shown more or less fluctuation, the tenor of advices operates against any urgency on the part of buyers, and the latter are not showing any. Values are not notably changed, but it is quite probable that holders of pig iron would shade to secure a purchaser. In fact, they are free sellers, and we understand that Summerlee has been offered at \$17.90 in round lots. Carnbroe is quoted at \$17, and No. 1 Siemens at \$18.

Very low offers have been made in Canada plates by sellers who, it is claimed, are discounting the possibilities of the market. Round lots of 200 and 500 boxes have been offered at \$2.45, but we hear of no sales of small lots under \$2.50.

There is little or nothing doing in tin plate. Cokes are offered at equal to \$3.15 here, and charcoal at \$3.35 to 3.45 for low grades, with higher grades in proportion.

Copper is quiet, and 1½¢ is quoted, but a round order would secure a shading on this price. We quote prices as follows on the various lines.—Summerlee, \$18 to 18.50; Eglington, \$17 to 17.25; Carnbroe, \$17; Siemens No. 1, \$18; Langloan, \$19; wrought scrap No. 1, \$15 to 16; bar, \$1.90 to 1.95. Tin plates, cokes, \$3.15 to 3.20; I. C. charcoal, \$3.50 to 4.25; Canada plates, \$2.50 to 2.60;terne plates, \$7.25 to 7.75. Oxford copper, 11½ to 12½; ingot tin, 21½ to 22c.

There is a fair enquiry for leads and paints, and prices are unshocked.

Glass is steady under a moderate business at \$1.35, and putty in bulk \$1.85.