

manufacturers and consumers to unite with the agricultural press in knocking out this outrageous implement dealers' combine. Farmers should refuse to buy of any dealer who as a member of the combine refuses to handle the goods of manufacturers who sell direct to farmers, and should send direct to such manufacturer. Such cases of refusal on the part of dealers form one of the most important kinds of testimony that Farm and Home desires to secure in its legal fight against this monstrous monopoly. Instead of empty talk against this illegal combination, let us move on its works with a concentrated power and force that will entirely rout the trust. Farm and Home is ready to lead in this immense undertaking if the farmers and manufacturers of the country will back it up.

THE Niagara Falls Park and River Railway, extending from Queenston to Chippewa, Ont., was opened to the public a few days ago and is proving a grand success. The road is operated by electricity, the chief source of power being obtained from the falls in the park, supplemented by energy derived from dynamos driven by a steam engine at Queenston. Queenston, be it known, is at the head of steamer navigation on the Niagara River approaching from Lake Ontario, and Chippewa is on the Chippewa River, about a mile from where it falls into the Niagara River at the south end of the rapids above the great falls. At Queenston the elevation of the escarpment where Brock's monument stands is about 350 feet, and this is attained by the road by a winding approach involving a grade of about one and a half miles in length, and a rise of five feet in each hundred. The elevation having been attained, the balance of the road, about a dozen miles, closely follows the winding of the river, and around the brink of the famous whirlpool, a better and more continuous view of the river, the rapids, the whirlpool and the falls being had from the cars than is possible in any other manner. The road and its equipment seems to be all that could be desired—that is if the brakes on the cars are all right and will always answer their purpose under all circumstances. But if the brakes of a car, loaded with passengers, going either up or down this phenomenally steep grade should fail to act, and if the trolley wheel should leave the wire at the same time, unfortunate results might occur similar to the disaster at Lookout Mountain a few years ago.

AND should the Federal Government not interfere with the sugar-bounty system established by the Congress before last, but on the other hand give the assurance that the system will be maintained for the fifteen years for which it was originally fixed, there seems to be every prospect, from the immense development of the industry which has already taken place, that every ton of sugar needed for home consumption would be produced within the sole limits of the United States by the year 1905.—New Orleans Times and Democrat.

THERE is well-spread and general suffering in the several established iron ranges of the Lake Superior district, says a St. Paul dispatch. It is the worst since the black days of 1872. There is scarcely a mine on the Marquette, Menominee or Gogebic ranges that is not either completely closed or greatly curtailed in operation. Miners have been thrown out of work for the past three weeks, and now the number of idle men in these ranges is at least 8,000 greater than it was less than a month ago. This tremendous non-employed force decreases in like ratio the business of the railways in that sec-

tion and also of the stores and dependent industries. It is probable that 12,000 men in the upper peninsular of Michigan and Northern Wisconsin are to-day out of work by reason of the closing of these mines. Miners, in many instances, were the sole support of the whole town. There is no other possible source of income, agriculture and manufacturing being practically unknown. Most of these mines that have suspended operations are still shipping the ore that they mined and put on stock piles. Some few are continuing mining operations with day shifts. Some, however, are so completely shut down that the pumps have been taken out and the mines will be allowed to fill with water.

ONE of the latest uses of aluminum is for cooking utensils. An expert of the metallurgical laboratory of Lehigh University says: "After two years of actual experience, that in point of lightness, cleanliness, durability and all-round adaptability, vessels of aluminum are the perfection of cooking utensils. In instances two boilers which have been in daily use for cooking all sorts of food, for preserving, stewing fruits, and the like for two years, and are to-day as bright as new and have not lost a fraction of weight. One weighs 1 pound 12½ ounces, and the other 1 pound 11 ounces.

FOR some time past the superintendent of motive power of the south-west system of Pennsylvania lines west of Pittsburgh has been using oil furnaces in his blacksmith shop at Columbus, remarks an exchange. These furnaces are designed for heavy work, and have proved so successful and well adapted for the work required of them that others are being installed in other shops of the same system. One feature of this furnace that may surprise those who have not had much to do with oil furnaces of such size, is the absence of any stack or other means for carrying off the product of combustion. It has been found by actual experiment that when a stack is placed on such furnaces the temperature cannot be maintained to as high a point as desired. Without a stack it is evident that the flames and products of combustion have a tendency to creep out wherever there is an opening. For this reason the doors in the front of the furnace are carefully fitted, and it is found necessary to protect the buckstuffs in the immediate vicinity of the doors extending out a rib of firebrick from the front wall. These furnaces when first installed gave an economy of about fifty per cent. over that of the coal furnaces, and an increased output of twenty-five per cent. The economy was not wholly due to the difference in the cost of fuel, a portion of it being accomplished by the reduction of labor—there being no wheeling and shovelling of coal and ashes. While the increased output is maintained, the economy has in a measure fallen off: not due to the performance of the furnace itself, but because of the increase in the market value of oil since the furnaces were first installed.

DURING the discussion following the reading of certain papers on 'erra cotta, before the Royal Institute of British Architects, Sir Henry Dalton said: "As to its durability, I may perhaps mention two examples which occur to me as within my own observation. The figure of 'Britannia' on the top of the Exchange, at Liverpool, was made a hundred years ago at Lambeth, and also the figure of Sir John Crosby, which was made when I was a little boy.