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# ELECTRICAL,

# Mechanical and Milling News,

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## CHAS. H. MORTIMER,

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### EDITOR'S ANNOUNCEMENTS.

Correspondence is invited upon all topics pertinent to the electrical, mechanical and milling interests.

URING the past few years all millers manufacturing the higher grades of flour have adopted the practice of mixing Manitoba wheat with Ontario fall wheat, especially for family and bread purposes, and it is universally admitted that the flour is thereby greatly improved. But while mixing is almost universal, the manner of mixing is very different. Flour of a certain strength is required for the miller's trade, and by experiments and test baking, he ascertains what proportion of the dearer Manitoba what is required, and thus he mixes and grinds them together. Another miller, whose mill is on equal footing in point of equipment, uses the same on a smaller proportion of Manitoba wheat, md produces flour that is better and stronger. What makes the difference? One miller, instead of mixing the wheat together, grinds his Manitoba wheat by itself, and afterward when grinding his fall wheat, puts in his proportion of Manitoba wheat flour with a flour mixer; the trouble involved in the one method is considerably more than in the other, but the benefits derived by mixing the flour instead of wheat far more than compensate for the extra trouble. If any miller has an experience to the contrary, we would be obliged for the :uformation.

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THE latest development in arc lighting is the new alternating machine of the Westinghouse Company. Their claims for it are many and big, but just at present they ought to be taken with the proverbial grain of salt, at least until experience proves them to have a solid foundation. Apart from the fact that it necessitates the use of primary currents of high tension, making the samps rather ticklish to handle, it has not been clearly hown that the illuminating power of the alternating is as great as would be obtained from a direct current equiring the same power to produce. Unlike the light from a direct current which is mostly thrown in a downward direction and utilized to its best advantage, the

light from the alternating is diffused equally both up and down, and consequently a certain amount must be lost unless it were possible to utilize it by some system of reflectors. In alternating current apparatus, again, there is also a certain amount of power lost in heating the magnet cores of the lamps and converters, as, no matter how soft the iron may be, or how thoroughly laminated in construction, the rapid reversals of magnetism occasion some loss from this cause. The leading wires of the system may no doubt be made safe by thorough and durable insulation, but there must be very good reasons for the change before the present systems of direct current lighting are superseded by the alternating.

T is to be hoped Canadian manufacturers will La heartily respond to the efforts of the Dominion Government to secure a good display of Canadian products at the Jamaica Exhibition to be held in January next. The Globe wants to know why so much trouble is being taken to secure a market in the West Indies, while the United States market is being neglected. The answer to this does not appear difficult. United States markets are overflowing with goods in all lines of Canadian production, and American producers are seeking foreign markets where they may bestow their surplus above the requirements of their home market. To find an outlet there for our products would be as difficult as to add to the contents of a full measure. The conditions the West Indies are entirely different. Canada produces what they require, and vice versa, therefore the development of a mutually profitable trade is entirely possible, which accounts for the efforts that are being made to secure it. Canadians are wise in not wasting their time trying to coax the United States to lower their protective wall and let them into a market which is already overcrowded, while there exist markets like those of the West Indies which are certain to well repay any attention which may be bestowed upon them.

ME telephone company of Toronto have commenced what is evidently intended to be a very comprehensive system of underground distribution. We pointed out in our last issue the fact that the telephone companies had in their own hands the remedy for inductive interference with their circuits. Placing the wires underground and making use of metallic circuits, while expensive, is a sure cure for the evils that beset them. The total cost, however, should not be figured against the improvement of their service. The growing feeling on the part of the public that the streets should not be blockaded with a forest of poles and a massive network of wires must be recognized, and it shows a commendable amount of foresight as well as business enterprise on the part of the telephone company in endeavoring to meet this growing opposition as well as to improve their service. When the work is accomplished a cc siderable saving will be effected in the matter of repairs, and the annoyance of lines broken or crossed after every little atmospheric disturbance will be eliminated. The conduits being laid are of creosoted plank grooved and laid one over the other to form pipe 3 inches in diameter, through which it is intended the cables shall be drawn. The company evidently considers the institution as a permanent one, as the extent and number of tubes being laid afford provision for an immense increase in the number of wires.

THE latest move on the part of the Consumers' Gas Company of Toronto to checkmate its electrical opponents is their decision to charge a rent for meters to all customers who have put in the electric light. No figures appear to have been given as to what the proposed rent shall amount to. If the Gas Company's idea is to make it

excessive so as to try and prohibit the use of electric light where gas is supplied, they never made a greater mistake. A move of this kind might have succeeded in the early days of electric lighting, when the service was more or less liable to interruption, but now that it is practically continuous, and reserve machinery at hand to meet all conceivable emergencies, the position is different. Electric lighting is an infant industry just now, but a pretty healthy infant, and promising so rapidly to assume the proportions of a giant, that an attempt to crush the life out of it is not at all likely to succeed. Our friends of the Gas company should keep cool. There is plenty of room for them yet, and the biggest vacuity they have to fill is the room for improvement in the quality of their gas. If they would look after this, and check the exuberance of the little gas meter as it gets in its fine work at unholy seasons, they need not be so much in the condition that in our schoolboy days we used to denominate as "a state of funk." There are immense areas of both business and domestic lighting which for many years the electric light will be unable to reach, and they have been so busy raking in the shekels for the supply of illumination that the extensive field open to gas for both heating and power purposes has been left comparatively untouched. Its profits may be smaller, perhaps, but still enough to make the "calling and election" of a ten per cent. dividend as sure and certain as anything can be considered in this mundane sphere.

N the eve of another harvest, it may be well to look our milling future in the face, and see if there is a possibility of opening up some new markets for our flour. In the olden times when Ontario farmers grew in great abundance prime white and red winter wheat of varieties which produced flour that no other country could surpass, it was easy to find markets for all our product, because the abundance of wheat kept the price down to export basis. But Ontario fields have now ceased to yield those kinds of wheat in abundance, hence our prices for wheat are hardly ever down to export basis. There is, however, one variety of spring wheat that our farmers say they can grow plentifully, viz., goose wheat. But it will not produce flour suitable for the markets we are accustomed to supply, consequently millers will not give the farmer any encouragement to grow this variety extensively. Leading farmers have assured us that they would willingly do so if certain that a market could be found for either the wheat or flour. and because of its prolificacy, would be willing to market it at 20 to 22 cents less than the better flour producing varieties. This being the case, would it not be well for our Millers' Association to endeavor to find out if a foreign market cannot be found for this flour which can be produced at 20 per cent, less than the better grades? This recommendation would of course be entirely out of place if any hopes could be held out of our farmers again raising in abundance varieties suitable for the higher grades, but until science shall have taught them to bring back to the fields their original wheat producing property, there is small hope indeed in this direction. Let us try and do something with the kind of wheat our farmers can raise. If an effort were made to introduce this flour in Belgium from wheat costing about 65 cents per bushel, there seems ground for the belief that it eventually would pay. No doubt a little money would be lost in introducing it at Antwerp and Brussels, but when once introduced, with a strong probability that this grade of flour could be supplied regularly at much lower prices than the better grades, a new market would be opened up which would employ some of our flour mills during part of their idle time, as well as give the farmers a market for something to take the place of their barley. which the McKinley Bill is intended to deprive them of.