

number of its members, nor will the committee undertake to secure legislation in any State without the approval of the member for that State, and then only when sufficient preparation has been made to render success a reasonable certainty. (6.) Each member of the committee will recommend to the chairman an attorney for his State, who will receive and preserve for reference, copies of all documents published or approved by the committee to the end that if at any time it becomes necessary to employ counsel in that State, or if any special interest requires such service, said attorney will have the desired information and can represent the committee, or such special interest as may wish to employ him, and have at his command much of the data necessary to familiarize himself with the subject. (7.) All other considerations being equal, an attorney residing at the capital of the State will be preferable. (8.) The funds of the Association are not to be used for any of the expenses of this committee in any manner whatever.

THE time seems not far distant when the street railways in Canada will be operated by electricity. The first step in this direction has just been taken by the Woodstock Electric Light, Power and Railway Company, who have asked the council of that town to permit them to construct and operate a system of street railway with electricity as the motive power.

THE news comes from Ottawa that instructions have been issued by the Department of Railways and Canals for the opening of all the St. Lawrence canals from midnight on Saturday until six o'clock on Sunday morning and after nine o'clock on Sunday evening. This order is the outcome of the strong representations of Canadian forwarders, that by closing the canals the whole of Sunday they are being discriminated against, and that traffic is being diverted to the Erie canal, which otherwise would take the St. Lawrence route.

ARRANGEMENTS are in progress for the holding of an Electrical Exhibition at St. John, N. B., early in July. The following Companies have signified their intention of exhibiting: Standard Underground Cable Co.; Holmes, Booth & Hayden; North American Phonograph Co.; Westinghouse Electric Co.; Western Electric Company; Edison Electric Lamp Co.; Electrical Annunciator Co.; The North Galvanic Battery Co.; The Julien Storage Battery Co.; The Law Telephone Co.; and John A. Roebling Sons & Co., New York City. Thompson-Houston Electric Co.; Simplex Wire Co.; American Electric Wire Works (Providence, R. I.); Bernstein Electric Co.; F. W. Kimball, F. S. Pearson, Holtzar & Cabot, Nott Telephone Manufacturing Co., Frank Kidlon, Pettingall, Andrews & Co., Seth W. Fuller, C. C. Motor Co., Thomas Hall, and American Electric Register Co., of Boston, Mass. Canadian Electric Co., Amherst, Nova Scotia; The Calkin Electric and St. John Gas and Electric Companies, Messrs. Bromwell & Co., St. John, N. B.; The Thomson-Houston International Electric Light Company, and the Brush Electric Company, of Cleveland. The Exhibition, which will be in charge of an expert electrician, bids fair to bring together the largest variety of electrical appliances and novelties ever yet displayed. Readers of the ELECTRICAL, MECHANICAL AND MILLING NEWS will be kept fully posted concerning this novel and interesting exhibition.

A MEETING of representatives of the British grain interests was called by the Secretary of State for India on May 8th, to consider means for the improvement of the condition of wheat imported from India. We have not learned at the time of writing what the outcome of the conference was. After reading the following description of the methods employed in India for raising and preparing wheat for the European market, we are ready to agree in the opinion expressed by the London *Miller*, that under present conditions of rural life in the East, the most that can be hoped for is improvement of a very gradual character. Our London contemporary says: The ryot pursues (as his fathers and forefathers have pursued for thousands of years before him) a most primitive system of agriculture. In several parts of India wheat is grown side by side with gram or pulse, a custom which is responsible for the large quantity of this seed that is to be found in many shipments of Indian wheat. This inveterate habit is said to have its roots in the fact that wheat and gram severally absorb a different constituent of the soil, and that each flourishes best with different kinds of weather. Now the ryot reasons—and from his point of view he may be showing himself a shrewd man of business—that if he has two crops on the ground at once he is almost

bound to win, however the season may go. This method of "hedging," to use a popular phrase, is highly inconvenient no doubt to the customers of the wheat raiser, but there is no evidence to show that at present, and perhaps for a long time to come, the cultivator may not find it distinctly to his advantage. Then, when the wheat is reaped, it is threshed on a threshing floor of dried mud, the flail being replaced by the feet of oxen, which detach little particles of earth from every portion of the floor and deftly mingle them with the grain. On the presence of other impurities inevitable to this process of corn dressing it is unnecessary to dwell, but it may be noted that the collection of wheat berries, chaff and miscellaneous foreign bodies left on the threshing floor, are gathered up and winnowed by hand in the wind, an operation which has, as might be anticipated, but little effect in removing impurities. These being the normal conditions of Indian agriculture, it is not surprising that grain merchants both in India and England should have introduced the practice known to the corn trade as "five per cent. refraction."

THE meeting of millers at Listowel a few days ago, has the appearance of being the first step in a determined movement to secure justice under our so-called "National Policy" for the great flour manufacturing industry of Canada. We sincerely hope that appearances in this instance will not prove to be deceitful.

Since the revival of the agitation for an increased duty on flour, we have had it in mind to speak a few plain words to the millers with regard to this matter, and as the present time seems fitting, we shall speak them now. We speak them with the best interests of the millers at heart, and trust that we shall not be misunderstood.

There are a number of things essential to the success of this movement. First of all, the millers must understand that if the objects sought are not attained as the result of the steps which are about to be taken, all hope of success may as well be forever abandoned. In a word, this is the millers' last chance to have their wrongs righted, and it behooves them to make the most of it. Thanks to the assistance of the daily press, public opinion has been aroused on this question as it perhaps never can be aroused again, and much sympathy is felt and expressed for the millers. This being the case, the time for action is now.

Action on the part of a few of the more energetic, wide-awake millers is not enough. Every miller in Canada must be wide-awake to the importance of the present movement, and must be willing to speak and work as though its success depended entirely upon his individual effort. If every miller will do this, we do not hesitate to declare that justice will be done the millers within twelve months.

The mill owners and mill employees in Canada number about 10,000 votes. They have the power to influence at the very least five times as many more. They have, as we have already said, the power in their own hands to secure fair treatment at the hands of the Government. Then, why has not fair treatment been secured long ere this? Simply because power accomplishes nothing unless exercised. The millers have not attempted to use their power; hence continue to groan under the burden of wrong treatment. What shall be said of the man who suffers injustice when he possesses the power to compel justice to be done him? Simply, that he deserves to suffer. The large majority of Canadian millers have shown no willingness to sacrifice either time or money to secure a remedy for the present state of things, consequently their condition has remained unchanged, and will so remain until the end of time unless those whose interests are at stake awake to duty. These are facts that the millers will do well to consider before entering upon a crusade against tariff injustice. If they are not prepared to work individually, collectively, unitedly, and with determination to succeed, the movement is foredoomed to fail, and had better not be attempted. On the other hand, if they are prepared so to work, their ultimate success is certain. To every miller individually we put the question: What do you propose to do about it?

The plan of action presented to the Listowel meeting by Mr. Plewes, of Brantford, may or may not prove prove practicable, but it has at least the merit of tangibility. Further than this, it recognizes the importance of securing the co-operation of the farmers, which is one of the most important objects to be attained. The farmers' interests are bound up with those of the millers in this matter. As yet the farmers as a class do not realize this. The millers have been competing with each

other at every point for the privilege of paying the farmer the highest price for his wheat. The result to the farmers have been most satisfactory, but ruinous to the millers. The latter have paid more for their wheat than it was worth, thereby increasing the cost of manufacturing flour to a point which has deprived them of any profit. In other words, the millers have been cutting one another's throats for the benefit of the farmer. So long as they continue to do this, they need not count upon getting the help of the farmers in their attempt to secure the readjustment of the flour duties. Mr. Plewes' scheme for the millers to combine to keep the price of wheat down to an export basis, is a good one. If carried out, a portion of the load which the millers have been carrying will fall upon the shoulders of the farmers, who will then be able to see more clearly the identity of interest existing between themselves and the millers, and will quickly join hands with the latter to bring about the needed reform.

NOW that the question of putting all electric wires underground is being agitated in Toronto and other Canadian cities, it is well to look into the matter carefully, and ask: 1st. What is the cause of the agitation on the subject? 2nd. Is it possible to work all electric wires underground successfully? 3rd. Is it possible to attain the end sought by any other method than by burying the wires?

It is hardly necessary to discuss the first question at any great length, as it is now quite generally known that overhead electric light wires of any description are believed by the general public to be a source of imminent danger to life and property, and as far as telephone, telegraph, fire alarm, and other low tension wires are concerned, they, and the poles that carry them, are simply looked upon as a disfigurement to the streets, and hence the removal and burial of all electric wires is being demanded by civic authorities.

As regards the second question, it has been demonstrated by practical experience that it is quite practicable to work telegraph, telephone, fire alarm, and other low tension wires underground successfully, and in order to demonstrate this fact, we have only to look at the experience of New York, Chicago, Philadelphia, Boston, Detroit, Buffalo, London, England, and others of the larger cities, the authorities of all of which unanimously agree that the question of placing of such wires underground has now been practically solved, and that outside of the expense and the inconvenience caused by the opening up of the streets, there is no reason why overhead wires and poles of this description should not be immediately removed. In regard to wires carrying low tension currents for incandescent lighting, it has been found that they will work fully as well underground as overhead, provided that the very best of insulation is used, and that the details of the work are carefully carried out under the direct supervision of a skilled expert. There is, however, at least one difficulty to be surmounted in the burial of incandescent electric light wires, and that is the question of house to house or general distribution of the current from the main conduit or leads. This is generally accomplished by branching of wires from the manholes in the streets to the subscriber's premises, necessitating the frequent tearing up of the pavements and a portion of the streets, which is of itself fully as great, if not a greater source of danger and inconvenience than an ordinary pole line. In regard to wires carrying high tension currents of 1000 volts or more for arc lighting, and for the alternating system of incandescent lighting, although there are many places where such wires are at present working underground, still the expense of keeping them in proper working order is found to be such that the companies operating them have either to double their rates or else withdraw from the business altogether. It is true that the civic authorities in New York city are at present forcing all the companies to bury their wires, but what is the result? Gas explosions in the conduits are of frequent occurrence, workmen are instantly killed while working in the man-holes, and the lighting service generally is poor and unreliable.

Now let us consider the third question. With regard to the telephone wires, their number is increasing so rapidly and their underground working has proved so successful, that there is little doubt but that they will all have to go underground ultimately. Almost the same may be said of telegraph, fire alarm, and low tension electric light wires, but when it comes to the high tension arc light wires the case is entirely different, and the companies operating arc lights and alternating system incandescent lights, have certainly excellent reasons for fighting the movement to compel them to bury their