Mr. Rowe, heretofore connected with the St. John's Stone Chinaware Co., is the party embarking in this new enterprise.

Letters patent have been issued by the Quebec Government incorporating the Victoria Wool Hat Company, of Montreal, with a capital stock of $50,000. The first shareholders are Messrs. W. C. Ravenhill, A. McK. Forbes, W.D. O'Brien S. Johnston and J. W. Molson.

A substantial brick factory has been erected on King St. near Bathurst, in this city, for the Toronto Silver Plate Company, of which Mr. J. A. Watts is president. Although the works are not yet complete, and consequently not in a position to turn out all the contempiated variety of goods, fifty hands are already employed. The company makes its own patterns and dies, casts its own metal, in cases where amalgam is used, and there may be seen the interesting operation of "spinning" metal into unbelievable shapes, as well as plating, chasing, and burnishing. The company is fortunate in securing the services as superintendent, of Mr. Felix. L. Paris, formerly of Montreal, whose artistic taste is well known.

CONSIDERABLE improvement is noticeable in Berlin, Ont. Messrs. Bingeman & Wilds, who began manufacturing gloves one year ago have moved into their new building which is 60x30 feet, four stories high, including basement.——Jacob Y. Shantz & Sons are extending their already large premises for the manufacture of buttons. They have erected a building across the street 40 by 50 feet, the two upper flats of which are to be used for turning out ivory buttons.——A gas company has also been organized, and is now opening up the streets to make ready for the pipes.

Contracts for the new mill at Hamilton for the Ontario Cotton Company, have been awarded. The building will front on Ferrie street, and will be three storeys with a basement. Extending from James Street 240 feet, it is to be 63 feet deep, with an engine and boiler house, picker room and weaving room. Work has, indeed, been begun.

The Canada Worsted Factory at Hares Point St. Roch's Quebec, is three storeys high and 325 feet by 54 in width. There are in all 180 looms in the mill. The first lot of goods is now being finished. Great difficulty is experienced in getting a sufficient number of skilled workman.

Mr. W. H. Storey, of the Acton glove works, has decided upon the erection of a new factory in that village. It will be a four story building of brick, very large in size, and will probably be two years in building

The cotton crop now being gathered in the Southern States is estimated at 7,000,000 bales, the largest ever raised. That of last year was 6,436,000 bales, and that of the year before was 6,589,000 bales, being the largest in the history of the country down to that time.

The Chatham Manufacturing Co., of which one of the chief promoters is Mr. D R. Vanallen, will when complete employ 140 hands and is, from the description in the *Planet*, an extensive waggon and sleigh making concern. The 75 horse power engine and the two twelve feet boilers are made in Walkerville. The lower machinery room is 40x108 feet; blacksmith shop, 40x100 feet; the forges, fan-blast and drill, all of Chatham make. The upper machinery room is 40x110 feet; bending room 40x60 feet, with machines from Illinois and Ohio; the drying kilns are 20x24 feet. The hub and spoke room is 30x150 feet; waggon-maker's shop 40x100 feet; paint shop, 30x150 feet; foundry, 25x70 feet. The iron and wood storehouse is 25x40. There is a stock of nearly 500,000 feet of waggon lumber in the yards, including 200,000 feet of oak.

The Burrell-Johnson Company of Yarmouth N. S. is building a steamer yacht named the *Laura* for Messrs J. J. Miller of Millerton, Miramichi. Her dimensions are 57 feet long; 10 feet beam; and five feet depth of hold. She is fitted with compound engines and a steel boiler.

Messrs. Maclachlan & Son of St. John are building an addition to the foundry at York Point Slip, the dimensions of which are 30x80 feet. The building is required to accommodate their increasing business.

The Peters Combination Lock Company at Moncton, has commenced the erection of a large building for a japanning house. It is about 30 by 60 and one storey high. A double furnace and oven have been rendered necessary by the increased demand for the production of the works. Additional skilled labor has been brought from the United States.

There are in Newark, N. J., says the *Iron Age*, twenty distinct classes of manufactures, the products of which amounted in value in 1881 to $1,000,000 each, while the total value of all manufactured products in the same year was $66,985,766, to produce which there were employed 41,510 hands, who received as wages $14,784,388. This shows an increase since 1870 of more than $18,000,000 in annual production, despite the years of panic and depression. In manufactures of machinery, iron and steel, 1796 hands are employed, and the products are valued at $2,614,000.

The manufacturing industries of Galt are very actively employed. Messrs Goldie & McCulloch, who employ over 300 men, are about erecting an addition to their machine works 340 feet long by 113 wide, two to three storeys high, to cost in the neighborhood of $40,000——Messrs. Shurley & Dietrich of the saw works there are "full of orders," and have in course of erection a two storey stone addition 80x57 feet. They employ from 60 to 70 hands.——Warnock & Co's edge tool works are "booming;" axes, hatchets, hammers, chisels &c. being turned out by thousands of dozens.——Cowan & Co's establishment has some 80 hands employed turning out woodworking and other machinery for every part of the Dominion.

IMPROVING OUR BUTTER INDUSTRY.

(Communicated.)

I.—CONDITIONS OF IMPROVEMENT.

There is a remarkable disparity between two of our important and kindred industries. Our cheese product is as noteworthy for its quality and good reputation, as is our butter product for its inferiority and bad character. In the financial statement of the Treasurer of Ontario, statistics are given which show the great improvement in the cheese trade in the short space of ten years, and its present importance; and the inference to be drawn is plain, that the condition of the cheese trade is a subject for congratulation. But with regard to the butter industry an opposite statement is made, so positive as to leave no room for mere inference. The Hon. Treasurer thus speaks:

"We make in Ontario over 45,000,000 pounds of butter annually. I regret to say, as Minister of Agriculture, that it is 45,000,000 pounds of a very inferior article. That is the verdict upon it in England and other foreign markets, and there is no evading the unpleasant fact. It is very evident that with our large annual product a very small percentage of increase in quality would add a very large amount to the total value." The condition of things in the other provinces is, at least so far as regards the butter product, much the same as in Ontario.

The cause of the improvement in the cheese industry will naturally be regarded as suggestive of possible means of improving the sister industry. I say suggestive only, because the two industries are in several essential respects dissimilar. The respective processes are different, and the trade in each product has its own peculiar features; hence the conditions of improvement are not in both cases the same. There is enough in common, however, in the two processes of cheese-making and butter-making, and the trade in one product is enough like the trade in the other product, to make reform in one case suggestive of means of reform in the other. The improvement in the cheese industry was owing to the adoption of scientific methods of manufacture, the help of improved mechanical aids, and a better system of marketing the product. All this amendment was itself in connection with, and more or less owing to, the introduction of the associated system, the establishment of factories, and the help under Government aid, of dairymen's conventions. Prof. Bell at the Dairyman's Convention at Belleville, in February last, in a valuable paper on this subject, stated as follows: "The marvellous advance in cheese-making is chiefly owing to the employment of scientific methods of investigation, namely, accurate observation and logical deduction, tested and confirmed or corrected by experiments." Upon the bearing of mechanical aids in the work, Prof. Bell said: "The apparatus supplied now leaves little to be desired, furnishing a striking contrast with the past. I will instance the jacketed vat and the gang press. The recent improvements both in apparatus and methods, have the advantage over the dairy-maids of former times that the disciplined force carrying the repeating rifle and revolver, would have over a tumultuous mob armed with the javelin and bow and arrows of antiquity." The same good authority goes on to show that the improvement followed a peculiarly bad state of things and the relief came from the adoption of the "joint-stock system of dairying," and was largely attributable to the Dairymen's Associations. These have given us "the views of gentlemen of large experience and scientific attainments, and have sent from factory to factory the most skilled and ablest practitioners, to instruct in the best and most improved methods of manufacture and proportions of material, thus insuring a uniformity of quality which alone can form the basis for a national reputation."

What shall we learn from this that will help us towards an equally gratifying result in the other industry of butter-making? If we recognize Prof. Bell as an authority, and we may well do so, since his statements are abundantly supported by other authorities, we may understand that, *first*, the adoption of scientific methods, taking the place of rule-of-thumb practices, is a condition of improvement in butter-making, as it was in cheese-making. Let us quote again: "It is desirable that all persons connected with the prosecution of the dairy business, whether the manufacture of utensils, or machines, the supply of raw material (milk,) or the conversion of the latter into a marketable product, should have acquaintance with the principles on which success depends."

The *second* condition of improvement in the butter industry, we shall in a similar way learn will be the adoption of improved appliances. The above change is certainly a not less imperative condition of improvement in butter-making than it was in cheese-making. The former is purely a mechanical process, and requires mechanical aids. The poorer the appliances the greater the skill required to produce a good result. The unsatisfactory results which are