

Flour Mills, Saw Mills, Planing Mills and Iron-Working Establishments.

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{ Price, 10 Cents { \$1.00 PER YEAR.

DUPLEX STEAM PUMP.

THE accompanying illustration represents a Duplex Steam Fump, the manufacture of which from Worthington patterns and specifications, has lately been commenced in Canada. The manufacturers claim for these pumps that they are substantially constructed. All bearings are interchangeable, allowing for removal and duplication in case of accident.

The valve motion is the most prominent and peculiar feature of this pump, and is the point to which it owes its complete exemption from noise or concussive action when in operation, and which will allow of the pump being run at a higher speed than can be reached by any single cylinder steam pump. Two steam pumps are placed side by side, and so combined as to act reciprocally on the steam valves of each other; the one piston acts so as to give steam to the other, after which it finishes its stroke and waits for its valves to be acted upon before it can renew its motion; this pause allows

all the water valves to set quietly and removes everything like harshness of motion, and as one or the other of steam valves must be always open, there can be no dead point. The pump is therefore always ready to start when the steam is admitted, and is controlled by simply opening or closing the throttle valve.

Further particulars concerning this machine may be obtained by addressing Mr. A. R. Williams, Soho Machine Works, Toronto, who controls the production and sale for the Dominion.

TORONTO INDUSTRIAL EX-HIBITION.

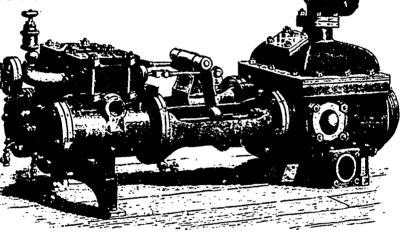
A Financial Success--Notes of Leading Manufacturing Exhibits--A Few Remarks Concerning the Management.

NOM a financial point of view the Exhibition in this city last month was the most successful which has ever been held. The attendance of visitors is estimated at a quarter of a million, and the receipts were nearly \$\$,000 in excess of last year. With proper management, there is no reason why "Canada's Great Fair," as it is called, should not increase in interest and importance each succeeding year. The present management have thrown a great amount of energy into the enterprise and are deserving of credit for the result which have been attained. The Industrial Exhibition Association's lease of the Exhibition grounds and buildings from the city of Toronto, will expire during the present year, and if there are any reforms necessary in the management of the Fair, we take it that this is the time to point them out, in order that they may receive consideration when the time comes for the renewal of the lease. In a few particulars the conduct of the Exhiplan is not what it should be. We are pleased to notice that some of the daily papers of this city have taken up the subject, and have pointed out some directions in which reform is urgently required. In so doing, they are performing their duty to the citizens of Toronto who are the owners of the Exhibition property, as well as to the outside public whose patronage is essential to the success of the enterprise.

There is reason to fear that what should be the primary objects of the Exhibition, viz., to encourage the highest degree of attainment in the various fields of Canadian production, to show to the world the progress which this country is making, and to provide a source of valuable information and education to the thousands who annually visit the city at Fair time, is being overlook d In the eagerness of the management to obtain "side shows," or "attractions" of the circus ring variety. It is no doubt true that something is needed outside of the exhibits themselves to ensure a sufficiently large attendance, but it is surely not impossible to obtain attractions that shall attract without demoralizing. To illustrate, we are of opinion that Mr. Edison's phonograph proved as great a source of attraction at the late Exhibition, as did the women in tights who divided attention with the pacers in the horse ring. While the influence

of the former was educative in the proper direction, that of the latter, if not actually debasing, could but satisfy idle curiosity.

We have more than once showed the necessity for a regulation compelling exhibitors to have their goods in proper shape within a couple of days after the opening of the Exhibition. The need of such a regulation was



DUPLEX STEAM POMP.

more apparent this year than ever before. At the beginning of the second week of the Fair, some of the buildings were closed to the public, while in others very few of the exhibits were in place. This was the case so far as the poultry and horticultural buildings were concerned. This is not just to those who come long distances to see the Exhibition, and, if not righted, the attendance will certainly fall off in consequence. In one of the flysheets issued by the Association, the publicwere informed that if they desired to see the exhibits in comfort, they should come the first week of the inxhibition. But, had they acted on this advice they would have been sadly disappointed, as a very large number of the exhibits could not be seen at all. The Association should manage things in such a way the public could rely upon that its promises. The position of affairs this year was briefly this: One could not examine the exhibits the first week, because in many departments they were not in position, and the second week they could not be examined because the crowd was too great. This decidedly objectionable state of affairs will seriously injure the success of future Exhibitions if not at once remedied.

The uppishness and lack of courtesy which has characterized the conduct of Manager Hill, have called forth a well-deserved rebuke from the daily press, which we hope will have a salutary effect. There are men who occupy positions of far greater importance and responsibility who do net think it necessary to be continually trying to impress the public with a sense of their great importance, or to disregard the grace of politeness in their intercourse with their fellows. Mr. Hill is a capable and energetic officer, and would doubtless become popular if he would add to his many good qualities those of modesty and affability. The Exhibition has certainly outgrown its present quarters, and doubtless some arrangements will be made to enlarge the grounds. Machinery Hall, as pointed out last year, is too small by half to accommodate the exhibits of our manufacturers. We understand that the manufacturers of Galt are talking of making a grand exhibit next year of the manufacturing capabilities of the "Manchester of Canada," if the Exhibition Association will give them a building for the purpose. We hope the necessary accommodation will be proferred and the pro-

position carried out. It would prove a good investment for Galt, an incentive to other towns, and a genuine source of attraction to the machinery users of Canada.

Among the leading manufacturing exhibits at the late Exhibition were the following :

GOLDIE & M'CULLOCH.

This old-established and enterprising firm of machinery manufacturers, occupied a space with a frontage of 100 feet on the north side of Machinery Hall. This space, which was far too small for the purpose, was crowded with flour mill and wood-working machinery, some of which was in operation, being propelled by a handsome Wheelock engine, itself one of the standard productions of the firm. The attention of millers was especially occupied with a new invention which Messrs. Goldie & McCulloch have recently bought the right to manufacture for Canada, and which is designed to do the work of a purifier and dust collector combined. The advantages of such a machine will be at once apparent to every miller. We reserve a full description for another occasion. The flour mill machinery was in charge of Mr. John E. Wilson, the balance of the exhibits being

in the hands of Mr. W. T. Walker.

LONDON MACHINE TOOL CO.

A very fine display of iron-working machines, produced at the works of the above company at London, Ont., attracted the attention of visitors to the south-east corner of Machinery Hall. The machines turned out by this enterprising company have been steadily improving in quality and perfect adaptability for several years past and if not yet perfect, appear to be very nearly so. Mr. A. R. Williams, of this city, who handles the productions of the company, has found the number of purchasers of their machines steadily increasing in proportion as their merits have become known. The fine exhibit made at the recent Exhibition cannot but increase the number.

ALEX. LAIDLAW & CO.

In a central location in Machinery Hall, the above firm exhibited their grain cleaning machinery for the use of flour and oatmeal millers, elevator owners, brewers, etc. The firm were able to back up their claims as to the merits of their machines by testimonials of many prominent firms who have used them successfully.

NORTHEY & CO.

Close beside the western entrance to Machinery Half, Messrs. Northey & Co. showed several of their steam pumps in various sizes, which we observed came in for a good share of attention at the hands of steam users who doubtless made a mental note of the name and address of the manufacturers.

BALL ELECTRIC LIGHT CO.

Electricity has already become a powerful factor in the manufacturing world, and is destined we believe to come more and more into use for a variety of purposes in the future. The electric light has been successfully introduced into quite a number of our mills and factories, and as its advantages become better known, it will doubtless