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**BRANTFORD ENGINE WORKS.—GANSON,
WATEROUS & CO.**

The favourable accounts which we have from time to time received of the reputation of this establishment, together with the recollection of the saw mill in successful operation, which this company sent to the late Provincial Exhibition at Hamilton, have induced us to visit Brantford for the purpose of looking through their manufactory. We now proceed to give our readers a short account of the impression made on us while pursuing our object.

Unfortunately our visit was made at that unseasonable time when the workmen, having scarcely recovered their work-a-day habits after the holidays, were, not blameworthy, tempted to "make another day of it," to see their volunteer "companions in arms" off to the Frontier. We were thus deprived of the pleasure which we always feel on seeing good machinery in motion; and, in the presence of those powerful engines, capable of accomplishing such great results—if need were—without any rest, seeing them in a state of quiescence, we felt the stillness almost oppressive. Practically, however, the absence of motion was less inconvenient than it would have been to those entirely unacquainted with such matters.

All the tools here are of the best kind, and well adapted to the work required of them. If it were otherwise, indeed, the measure of success which the concern has achieved would have been impossible.

The number of hands in constant employment at this establishment is about sixty, many of whom represent families. The principal articles manufactured are the heavier agricultural implements, as mowers, reapers, threshing machines, clover mills, chopping mills, and Sutton & Gibson's patent grain dryer, also steam grist mills; lath, shingle, and gumming machines; portable steam saw mills; upright, horizontal, stationary, and portable steam engines; mill gearing, &c. The annual value of the products of this establishment is about \$100,000. It has been stated that "probably there is no other establishment in Canada which has within the last eight or ten years turned out so

large a number of mowers, reapers and thrashing machines."*

Our attention was directed to the shingle machine which they manufacture, and which they state to be capable of making, from the log, 13,000 shingles in ten hours, requiring the attendance of three men, and ten horse power to drive it. The work guaranteed is 10,000 a day. This machine is an American idea, made little of until perfected by this firm. The lath machine, we are told, will turn out from 12,000 to 14,000 laths a day, requiring three men and five or six horse power.

The iron "champion chopping mill," which they have patented, is undoubtedly a very effective machine for general crushing, grinding and pulverizing purposes, for corn meal, corn cob and shuck, all kinds of feed, spices, malt, coal and bones. It is claimed for this mill that it possesses some new and very important features, amongst others, that its diamond shaped teeth are so constructed and arranged as to render it independent of its centrifugal force for discharging the substances ground, each tooth from its form and working direction forcing it a stage onwards towards the periphery and discharging edges. That part of the machine which crushes the substances presented is separated from the grinding plates, the former breaking up and preparing the material for the latter. In the crushing process it is forced into the mill proper, and ground to any degree of fineness which may be desired. The crusher operates twice in each revolution, producing a full supply to the grinding plates. The mill will work equally well in either direction, and we think it very desirable that it should do so, as whatever wear of the teeth there may be in working one way will be in favour of the teeth when the motion is reversed.

To farmers who have any kind of power, we should think this a very desirable mill for chopping feed, grinding meal, &c., saving time and toll in going to mill; and we would suggest also that millers would find it much more economical for chopping coarse grain, than keeping mill stones in order for that purpose; also where any kind of hard, coarse, substances are required to be crushed, parties concerned would do well to enquire into its capabilities. It is a small, compact, very strongly built, little affair, occupying little more space than a large cheese. We have seen it in operation, crushing and grinding whatever was thrown in, oats, corn, cobs, and blocks of wood. We learn also that persons using it testify that it is very durable, and will grind ten bushels of corn

* *Brant Expositor.*