

CLOG-MAKING AT BOOTLE.

On February 1st Lord Claud J. Hamilton, M.P., paid a visit to the works of the Morsey Wood-working Co., Bedford Place, Bootle, and inspected the whole of the processes, the visiting being probably suggested by the circumstance that from time to time extensive purchases of timber have been made by Mr. R. J. Jones, the manager, from the Duke of Abercorn's estate, of Baronscourt, in the North of Ireland. Besides this personal interest the unique character of the works was itself sufficient to make their inspection well worth a visit. From an interesting report in the *Bootle Times* we learn that the principal manufacture carried on at these works is that of wooden soles for what are called in Lancashire "clogs," and in France "sabots." Familiar as are the "wooden shoes," few persons would conceive how ingeniously the manufacture of the soles are conducted and how vast are the quantities which are issued daily, weekly, and hourly from these works. Lord Claud J. Hamilton first visited the yard, where there are usually stored from two to three thousand tons of timber. The native timber is first stripped of its bark, the foreign logs being already barked when imported. The logs are then raised from the yard by a crane and cut up by circular saws into segments averaging about a foot long. These segments are next cut into planks of convenient size, a dozen saws working at once, and the planing being effected with marvellous rapidity, about 60 tons of wood being cut up into clog soles every day. On the side of each plank a metal gauge is laid, and a girl with a pencil roughly outlines the size and number of soles which can be made from it. The planks pass on to a band saw, where they are cut up into blocks with the required curvature for a sole. Thence they pass to the roughing machine, which roughly shapes them. Another machine cuts the sides; another shapes the shanks; yet another rounds the heels; and yet another shapes the toes. They pass next to a revolving cutter, which roughly hollows the upper side of the sole, and subsequently this hollowed surface is smoothed in another machine. They pass next through the various finishing machines, where the bottoms, sides, shanks, heels, and toes are successively rendered perfectly smooth by friction with swiftly revolving bands covered with a mixture containing ground glass and other attritive materials, which scour them in the same way as if with sand or emery paper. They next go to the gripping machine, which bevells the edges, leaving a "grip" to which the leather boot uppers can be fastened. It will thus be seen that the sole of each wooden shoe, from the time when the log of wood is first cut into segments to the time when the edges are bevelled by the gripping machine, passes through fifteen different machines, and as the required sections are marked by hand, and the right and left sides of toes and heels are separately shaped, each sole passes through the hands of eighteen different workpeople. Perhaps the advantages of the "division of labor" have never been exhibited in any manufacture with more remarkable results. The motive power for these various processes is supplied by a pair of 60-horse power compound high and low pressure condensing engines. The waste wood is also manufactured at these works into a valuable commercial product. It is chopped up by machinery, treated with chemicals, steeped to a condition of softness, and all knotty pieces having been removed, the softened woody fibre is drained and compressed between a series of rollers until it is transformed into sheets of pulp, or rather half made paper, which is supplied to paper manufacturers, and being mixed with other materials is transformed into the best qualities of paper. Lord Claud J. Hamilton was shown a sample of fine rose-tinted note paper, which was made chiefly from the waste cuttings of wooden clog soles. The works include a chemical laboratory and joiners', fitters', and grinders' shops. The extensive cunars are stored with clog soles, which are kept there for the time necessary to season the wood before being finished, and vast quantities of finished goods are passing daily from the warehouses to English, continental, and colonial markets. Lord Claud J. Hamilton inspected every process with considerable interest, and we imagine that to him and to others who may

read this description of what he saw "the clang o' the wooden shoon" will henceforth acquire a new significance.—*Timber Trades Journal*.

NORTHWESTERN TIMBER LIMITS.

A parliamentary return has been brought down giving particulars of all timber limits in Manitoba, Keewatin, and the North-West from the time of the acquisition of that country down to the 15th of February last. It is as follows:

NAME.	LOCALITY.	NATURE OF GRANT.
Turner & Co.	White Mouth River	Yearly License.
Gerrain & Co.	White Mouth River	"
J. Bergen & Co.	White Mouth River	"
C. P. Harty Company	Broken Head River	Permit.
M. H. Cochrane	Boar River	Yearly License.
J. A. Stephenson	Pogey Creek	"
Department of Indian Affairs	Pindler Creek	"
Geo. D. Farmer	Red Deer River	21 years lease.
Miller & Scott	Caribou River	Yearly License.
McLean & Sinclair	Caribou River District	"
Ed. Murphy	Sinking and Pelican Lakes	21 years lease.
Armstrong & McDougall	Township 30, Range 30	Yearly License.
Cheverly & Chabot	Shell River	"
Messrs. Shields, Hagar, McLaren & Nicol	Shell River	"
P. Kelly	Lake Winnipegosis	21 years lease cancelled.
Pat & Smith	Lake Winnipegosis	"
Wm. Smith	Lake Winnipegosis	"
Joseph Whitehead	Lake Winnipegosis	"
Peter McArthur	Lake Winnipegosis	"
Joseph Whitehead	White Mouth River	"
Capt. H. S. Moore	North Saskatchewan	"
Cook & Sutherland	Saskatchewan	"
Dr. Bown	Big Island, Lake Winnipeg	"
W. J. McAulay	Lake of the Woods and Rainy Lake	"
Stephen H. Fowler	Rainy Lake and Seine River	"
R. Fuller & Co.	Lake of the Woods	"
McAulay, Ginty & Sprague	Rosseau River	"
McAulay & Ginty	Winnipeg River	"
Dick & Branning	Lake Winnipeg	Yearly License

EXTRAORDINARY ECONOMY.

With the majority of people wood is wood. The possibility of making it into articles of commerce, distinct from wood, does not enter their minds. The *Lumberman* is indebted to Mr. J. A. Mathieu, a French chemist, who visited this office on Saturday last, and exhibited several of these articles. In a dozen bottles he had as many different liquid preparations. There was acetate of nickel, acetate of zinc, acetate of alumina, acetate of copper, acetate of lead, acetate of iron, acetate of soda, of man ganese and of lime. These preparations are used for painting, preserving wood, tanning,

dyeing, and in the manufacture of paper, ink, colors, varnish, and in a hundred and one other directions. The principal ingredient of them all is acetic acid, which is obtained in the process of carbonizing wood, retorts for which Mr. Mathieu has invented and patented. The first thing desired is charcoal, and the acid spoken of comes naturally. It is a fact that has been known for a good while that the demand for charcoal has equalled the supply. Since it has been known that charcoal iron is the best, the demand has largely increased. Heretofore a good result from a cord of wood was 45 bushels of charcoal. Mr. Mathieu was of the opinion that too much wood was wasted, and set about to devise a remedy, and with perfect success. From a cord of beech, maple or birch wood he obtains from 60 to 70 bushels of charcoal, and if we may believe Mr. W. H. H. Gore, of New York, of the Gore Iron & Mining Company, at Port Leyden, N.Y., it is of very superior quality. The use of it enabled him to put 41 pounds burden to the bushel of coal, whereas before there had been but 30 pounds to the bushel; and it bore an extra revolution of the blast cylinder. If this be so, the value that the invention will be to the iron industry will represent a vast sum of money. Mr. Mathieu had with him a piece of a beech limb, a foot and a half long, carbonized, that was as hard and resonant that when struck with a pencil it gave forth as much sound as though it were steel. Charcoal from peat bog can be made in the same retorts, and it is said that two tons of dried peat will make nearly a ton of hard charcoal. Mr. Mathieu also exhibited a preparation for fuel, composed of sawdust and charcoal dust. It weighs 30 pounds to the bushel, burns without disintegrating, and will last as long as coke. As a fuel for locomotives it will undoubtedly be valuable. Tanbark can be mixed with charcoal dust and serve the same purpose. We were much interested in Mr. Mathieu's invention, not only on account of its novelty, but because it promises to add to the worth of forests that have been considered of little value. Charcoal made of pine, while not so valuable generally as that made of hardwood, is better for some purposes. If the slabs and sawdust that accumulate to such an extent at the milling points can be turned into charcoal and fuel, and sold at a good, round profit, it will be a stroke of business that will make every extensive lumber manufacturer laugh.—*Northwestern Lumberman*.

PRESERVING FENCE POSTS.

A correspondent at Benton Harbor, Mich., sends us the following statement by Parker Earle (a widely known horticulturist), in the *Chicago Times*, and requests our opinion of his mode for preserving fence posts. In answer it may be stated that no single experiment, or no single series of experiments under like circumstances, can be adopted as a rule for unlike conditions. Our own observations and experiments have led uniformly to the opinion that coal tar applied warm to dry wood is a good preservative for timber underground, or exposed to wet and shade, but does more harm than good if exposed to the heat of the sun and weather. But varying circumstances may vary the rule. The character of the soil may have a controlling influence, and experiments should be repeated in different places and on different kinds of wood. The experiments of Mr. Earle are a valuable contribution to such a series of trials. For general application, we would recommend first impregnating the whole of the post with crude petroleum as a general preservative, and when dry apply hot tar to the portion going underground, but none above. The petroleum will penetrate the pores, and the tar coating will hold it there. The following is Mr. Earle's statement—

In building a fence around our young orchard, several years ago, we tried many plans for preserving the posts. Having occasion to remove the fence this winter, we noted the condition of the posts as follows. Those set with no preparation were decayed an inch or more in thickness, those coated with a thick wash of lime were better preserved, but were quite seriously attacked by worms; those posts coated with hot tar were perfectly sound as when first put in the ground; those painted with petroleum

and kerosene were equally sound and as good as now. In future we shall treat all posts in the following manner before setting. Let the posts get thoroughly dry, and then, with a pan of cheap kerosene and a whitewash brush, give the lower third of the post, the part to go into the ground, two or three good applications of the oil, letting it soak in well each time. Posts so treated will not be troubled with worms or insects of any kind, but will resist decay to a remarkable degree. This we find to be the simplest, easiest, cheapest, and best method of preservation.—*Country Gentleman*.

MAPLE LOGS.

A Wexford, Mich., county paper has the following regarding operations in hardwood on the Manistee river:—An almost unlimited source of wealth to the people of this country has just commenced development in the offer of certain parties to purchase hard maple logs delivered on the bank of the Manistee river. Hitherto it has been supposed that maple logs would not float, and consequently that all the vast hardwood forests in this and adjoining counties would have to be burned up before the land could be made available for farming purposes. But if this enterprise of running maple logs to Manistee should prove successful, not only will it prove a great financial benefit to the country by the increased amount of money which will be put in the hands of our farmers as the price of their maple logs, but it will produce a more rapid development of farming industry, by making it much more easy for men of limited means to clear up their farms. We shall await with considerable anxiety the result of this experiment of floating hardwood logs to market.

READY MADE HOUSES.

A gentleman living in Ottawa has conceived the novel idea of constructing wooden houses in sections, of a size admitting their transportation on ordinary flat cars. These sections, which are to be built in this city, are to be taken to Winnipeg or other places in Manitoba, and erected there, some of which are owned by the speculator and others which are to be rented. The project appears to be feasible enough, and as lumber and labor are both much cheaper here than in Manitoba, and the cost of transport reasonable, there is no reason why the speculation should not prove a paying one. The parts are to be substantially built, and on arriving at their destination, a few hours' work will put them together, and as the oak pins with which the sections are joined are easily driven, it is calculated that in one and a half days a dwelling 18 by 20 feet, with kitchen, 12 by 14, attached, can be put in readiness for occupation.

Timber Trespassers.

A New York paper is concerned about a system of reform which will prevent, throughout the northern states, what it terms a "reckless, criminal, and suicidal destruction of timber which will, in the remote future, entail disaster upon the wood-working industry and the country at large." Referring to the facts that there are 65,000 wood-working establishments in the United States, employing 400,000 persons, and using \$350,000,000 worth of material yearly in the manufacture of wooden-ware alone, as well as 8,000,000 more workmen employed on articles partially constructed of wood, the paper urges that congress shall interest itself as to preventive measures against the wholesale robberies of forests. Stringent restrictions against unnecessary waste are advocated to govern all sales of timber land.

"On the Hip."

This rather inelegant expression, used popularly to indicate that condition of things in which one person holds another securely by some circumstance, work or act, finds literal exemplification in the following narrative by Mr. John Rourke, of Ottawa, Canada. Mr. Rourke says. I have been subject to hip disease for 8 or 9 years, and have tried all kinds of remedies, but found nothing to give me any relief until a friend advised me to try St. Jacobs Oil. I tried it, and after using 1½ bottles I am entirely relieved of pain, and have not been troubled since, now nearly six months. This is what people would call getting hip disease "on the hip."