

THE NEWS.

—Brush & McLean have purchased property at Colchester South, Ont., and will erect a saw mill.

—The Gillies Bros. Co. have a gang of millwrights at work thoroughly refitting their mills at Braceside.

—The Nichergall Stave & Lumber Co., of Staples, Ont., has been incorporated, with a capital stock of \$45,000.

—The Richmond Industrial Co., Richmond, Que., are applying for incorporation, with a capital stock of \$100,000, to manufacture woodenware, etc.

—Jos. Jacob and J. B. Tremblay have formed a partnership in Montreal as sash and door manufacturers. The style will be J. B. Tremblay & Cie.

—The saw mill of F. A. James at Hobart, Ont., has recently been running day and night. Two self-acting shingle machines are to be added to the mill.

—Geo. H. Whitehead and F. D. Whitehead have been registered proprietors of the lumber firm of G. H. & F. D. Whitehead, Waterloo, Que.

—An extension is being built to J. R. Booth's mill at the Chaudiere Falls which will make room for a couple more large saws and materially increase the output next season.

—Currie & Craig, of Flower Station, recently cut a tree for the Rathbun Company, which made six logs, the measurement of which were 3,297 feet. In the butt log there were 840 feet.

—J. R. Booth, of Ottawa, proposes cutting his lath material longer than the four feet, and is putting in a machine to trim off both ends of the lath after it has been bunched up to exactly the right length.

—The A. R. Williams Machinery Co., of Toronto, are applying for incorporation, with a capital stock of \$300,000, to manufacture and deal in engines, boilers, motors, and all kinds of machinery and supplies.

—Gilmour & Hewson, of Hull, Que., propose enlarging their present boiler house and adding two new flue boilers. They are also putting up an additional smoke-stack to facilitate burning refuse and saw-dust.

—The stave mill of H. C. Rees, at South Woodlee, Ont., which was burned a fortnight ago, is to be rebuilt at once, and will be fitted with the latest improved machinery. The boilers were only slightly injured by the fire, but the engines will have to be rebuilt.

—Thos. Conlan, the well-known Thorold lumberman, recently returned from his timber limits on the north shore of Manitoulin Island. He states that this season's snowfall is the smallest for the past six or seven years, although there is sufficient depth for teaming through the woods.

—The Liverpool Timber News, of Jan. 26th, says: Mr. Isaac H. Mathers, of Halifax, and Mr. George McKean, of St. John, N. B., are now in England visiting timber importers. They were both shippers, previously, to Messrs. James Smith & Co., Liverpool, who acted as their agents.

—The Fredericton, N. B., Boom Co. will, it is said, ask power from the provincial legislature to boom from the foot of Omogo Island to the eastern shore of the St. John river, and will transfer their operations to that point. The new works will necessitate an expenditure of about \$70,000.

—Robert Gault, superintendent of the Rathbun Company's operations in the Algoma district, and Mr. S. C. D. Baker, his secretary, have established their headquarters at the Manitou House, Manitowaning, Manitoulin Island. They have already purchased a vast quantity of railway ties for the Company.

—Argument was recently heard by Mr. Justice Street in a suit over the estate of the late Robert Charles Smith, sr., lumberman, of Port Hope, upon a question as to whether R. C. Smith, jr., Alice Underwood and Charlotte Macbeth, children of the deceased, rank on the estate to the exclusion of five children of a deceased daughter. The estate is valued at \$150,000.

—C Beck, of Penetanguishene, Ont., has made arrangements with the Waterous Co., of Brantford, for the supplying of a complete band saw mill, to be erected near Savanne, on the C. P. R., where he, in connection with the Hogan Bros. of Wyevale, and Dr. Spohn, under the name of the Savanne Lumber Co., contemplates extensive lumbering operations. He has also purchased an additional band mill for the New Keene mill and also intends putting a new gang in the Penetang mill.

—Wm. Evans, of Deseronto, has received the official appointment as inspector of hulls for the Toronto district, and has commenced his duties. Mr. Evans was born in Kingston in 1849, and first began work as assistant to the clerk of the Edward Berry Shipbuilding Company at Portsmouth, and after a short time commenced his apprenticeship under Mr. Wm. Yeomans,

shipbuilder, working at the building of all the ocean ships constructed by him. There were 32 applicants for the position to which he has been appointed.

—The Ontario and Western Lumber Company, which controls and operates a big lumbering industry on the Lake of the Woods, with mills at Rat Portage, Keewatin and Norman, has decided to branch out in a new line of manufacture. The company is putting in machinery to equip a first-class box factory on a large scale, with the object of shipping boxes and packing cases. The factory will have all modern machinery, including stamping and printing presses for taking impressions on wood. Heretofore large quantities of box material have been brought in from the East or the United States to supply Winnipeg factories. This will now be unnecessary, as a supply will hereafter be obtainable close at hand, from a home industry.

CASUALTIES.

—While working for the St. Anthony Lumber Co., of Long Lake, John Foley, of Stittsville, Ont., was killed by the falling of a tree.

—Richard Pier, an employee of Palmer's heading mill, at Alvinston, Ont., had his arm caught between cogwheels recently and badly injured.

—William Kerney, logger, was killed near Vancouver, B. C., recently. A tree fell on him inflicting terrible injuries, from which he died.

—Samuel Fripp, of Wellington, Ont., was killed recently while cutting down a tree by the falling of a dead branch. He was struck on the head and died two hours afterwards.

—An employee in the planing mill of Messrs. Moffat & Co., Carleton Place, named Peter Miller, got entangled in the machinery and had his leg broken and his ankle badly crushed.

—Moise Dubay died at Sudbury, Ont., on the 5th ultimo, from injuries received at the hands of certain lumbermen at Gaudet's Camp, near Worthington. He was struck with heavy sticks of wood.

REMOVAL OF BOILER SCALES.

THE great bulk of the solid matter deposited from the feed water, remarks the Locomotive, may be removed by frequent and judicious blowing. It cannot all be removed in this manner, however, for where the plates are hot more or less of it is sure to bake on, forming the hard, stony layer known as "scale."

The commonest components of scale are carbonate of lime (limestone) and sulphate of lime (gypsum). Carbonate of lime seldom forms a stony scale. It may collect in large masses and do serious injury to the boiler, but the deposits which it forms are usually lighter and more porous than the corresponding deposits of the sulphate of lime.

Most substances are more soluble in hot water than in cold; but carbonate of lime is a notable exception to this rule, for, although it is somewhat soluble in cold water, in boiling water it is almost absolutely insoluble. It follows from this fact that when feed water is pumped into a boiler, the carbonate of lime it contains is precipitated in the form of small particles as soon as the temperature of the water reaches the neighborhood of 212 degrees. These particles are whirled about for a considerable time in the general circulation, and if the circulation is good they do not usually settle until the draft of the steam is stopped for some reason—as for instance, in shutting down for the night, or in banking the fires for the noon hour.

The best time to remove this sediment by blowing is, therefore, just before starting up at one o'clock, or after the boiler has stood idle for an hour or so at night, or just before beginning work in the morning; for at these times the carbonate deposit has settled into a kind of mud at the bottom of the boiler.

Sulphate of lime differs from the carbonate in being more soluble in hot water than in cold; and it is, therefore, not deposited in the same way. The sulphate deposit is formed at those points where the evaporation (and consequence concentration of the solution) is most rapid, that is, in contact with the shell, the tubes and the back head. Being deposited practically in contact with the iron, it forms a hard adherent coating, which often resembles natural stone so closely that nobody but a skilled mineralogist could tell the difference between them. The best way to treat water containing sulphate of lime is to convert the sulphate into carbonate, and remove the carbonate thus formed by means of the blow-

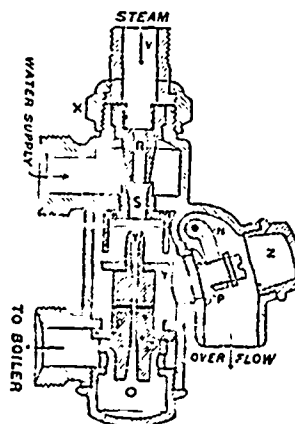
off, as already described. This can be done without injury to the boiler by the use of soda ash, which is a crude carbonate of soda. The chemical action that takes place may be briefly described thus: Carbonate of soda and sulphate of lime act upon each other so as to produce sulphate of soda and carbonate of lime. The sulphate of soda thus produced is what is known as Glauber's salts, and is very soluble in water, and passes away very readily through the blow-off.

THE PENBERTHY INJECTOR.

WE illustrate herewith an injector which has been before the steam using public of the United States and Canada for several years, but which has not previous to this time been brought especially to the attention of the lumbering trade in this section.



The "Penberthy" automatic injector is marked by simplicity of construction, it having only three jets as will be seen by referring to the sectional cut herewith. The entire wearing parts are easily accessible, the delivery jet which most frequently needs cleaning in every injector being removed by simply unscrewing the plug at the bottom of the machine, and the jet which rests in



SECTIONAL VIEW.

this plug will follow it out. This injector is claimed to have a wider range of operation than any other automatic injector manufactured, starting on low steam at from 22 to 25 lbs. pressure, and working from that point to 145 to 150 lbs. steam pressure, being automatic and restarting at any and all pressures between the points named. When taking water from a lift, it is operated by opening valve in steam pipe and then opening valve in suction pipe with which the water supply can be regulated to the proper amount required for the steam pressure earned, after which it is only necessary to close and open the steam valve to stop and start the machine, and if from any cause, such as a sudden jar of the pipe, the feed to the injector is broken, it will at once restart automatically without attention from the engineer.

This injector has been adopted by many of the large builders of engines and boilers throughout United States and Canada, and is guaranteed by the manufacturers to be superior to all other makes. They have recently issued a catalogue of these popular machines, which they will send to any mill owner or engineer who will write them and mention this paper. The injector is manufactured by the Penberthy Injector Co. of Detroit, Mich., their Canada trade being supplied from a branch factory, located at Windsor, Ont. In writing for catalogue or information address the office at Detroit.