

Shelfae and borax boiled in water produces a good stain for floors.

The Peterboro' Bridge Works have been removed to larger premises.

The Beavenon Brick and Tile Co. have dissolved partnership. Mr. Taylor will in future conduct the business.

A company formed in this city recently will establish large works near the mouth of the Niagara River for the manufacture of heating furnaces, etc.

A test of the new pumping machinery for the Water Works Department of Hamilton, showed the pumping capacity of the engines to be in excess of the requirements.

The beautiful enamethed bricks frequently used for outside or interior decoration are made by applying to the surface a colored that, which thirting the burning causes the silex to melt and cause a videous constitut.

a vireous covering.

Mr. Davis, ship builder, has closed a contract with a fire prof cement works company of Montreal to freight 2,000 tons of soapstone from Portland Bay, Rideau Lake, to Montreal during the coming summer.

Operations have been going on briskly at the Forks of the Credit, notwithstanding the severity of the weather, Messes, Scott & Pattullo, Armstrong & Sharp and Britnell & Co., are each giving employment to twelve men.

The bulk of the stone used in the construction of the new International Bridge at Soult Ste, Marie was quarried at Owen Sound, Ont. Mr. R. M. Paterson, the inspector of musoury, says the quality of this stone is unsurpassed on this continent.

A colossal stick of lumber from Paget Sound has been contributed to the Mechanics' Exhibition at San Francisco. Its length is 151 feet, and it is 20 x 20 inches through. It is believed to be the longest piece of timber ever turned out of any saw mill.

At a meeting of the St. Thomas Plate Glass Association held a few days ago, the following directors were appointed:—J. J. Mickeldomogh, A. M. Hutchinson, Dr. McLarry, Alex, Lindsay and Dr. Luton. Dr. McLarry was elected President and J. P. Martyn, Secretary-Trensuer.

The Hungerford Marble Quarry Co., Madoc, Ont., are receiving every encouragement as the result of their recent explorations, It has been demonstrated, as the opening of the win continues, that the marble is there in paying quantities and of a very good quality. Mr. Whitney, the manager, expects to have the product of these quarries in the market during the coming summer. The industry promites to return handsome profits and employ a large number of me.

A new invention designed to take the place of stained glass is white paper usanufactured from cotton or linen and modified by chemical action. The paper is dipped into a perporation of alcohol and campbor, which makes it like parchment. From this point it can be moded and cut into remarkably tough sheets, entirely translucent, and can be dyed with almost the whole outline colors, the result being a translucent sheet thowing, it is said, far more widd huse than the best ghree schibits.

Rocks composed of chlorite are found in various parts of the world, and are used for ornaniental constructions, especially for making smaller objects which can be turned with a lathe. These are the stones which are called by the French pierrus alsalras. A chlotic from l'octon, in Lower Canada, has been used. It is found in beds of the Lower Silurian age, lying immediately upon the Laurentian rocks; it is associated with dolomite or serpentine, and, like the latter rock, it contains some citrone iron.

TEST FOR GLUE.—The following simple and casy test for give signers: A weighed piece of glue (tay one-third of an onnes) is suspended in water for 21, hours, the temperature of which is not above 50° Fah. The coloring material tisks, and the glue swells from the absorption of the water. The give is then taken out and weighed; the greater the increase in weight the better the glue. If it then be dried perfectly and weighed ngain, the weight of the coloring matter can be calculated from the difference between this and the original weight.

We learn from the London Free Frest that arrangements are in progress with a firm in that city for the construction of a muchine, patented by Mr. Israel Kluney, of Windsor, for the manufacture of patent free-proof latthing. The natchine welfath between eight and ten tons, and will take six or seven months to build. It is intended to construct the machine and operate it is London. Mr. Klinney also states that the machine will turn out creating grating, sevens and bridgework. He has a patent for the invention both in the United States and Cannada.

Inou Bracks.—Louis Joehin, of Outweller, mar Santhruceken, Germany, is introducing paving blocks, which he calls iron brick. They are made by utsing equal parts of finely ground red argillaceous slate and finely ground elay, and adding 5 per cent. This nisture is motisened with a solution of 25 per cent, sulphate of fron, to which fine iron ore is added until it shows a consistency of 38° blaune. It is then formed in a press, dried, dipped once more in a nearly concentrated solution of sulphate of fron and finely ground iron ore, and is bakeet in an oven for 48 bours in an oxidizing thane, and 24 hours in a reducing flame. The German Government testing-faboratory for building materials has reported flavorably on this brick.

How To PREPARE CALCIMINE—Soak one pound of white glue over night; then dissolve it in boiling writer, and add twenty pounds of Paris white, diluting with water until the nitrature is of the consistency of rich milk. To this any tint can be given that is edscired. Lilat—Add to the enclamine two parts of Prassian blue and one of vermilion, stirring thoroughly, and taking care to avoid too high a color. Gray.—Max untuer, with a trilling amount of lampblack. Row.—Three parts of vermilion and one of red lead, added in very small quantities until a delicate shade is produced. Lawender.—Mix a light blue and tink it slightly with vermilion. Strate.—Chrone yellow, with a touch of Spanish brown. Buf—Two parts persec, or Indian yellow, and one part burst seenas.

A Russian professor has been experimenting on the best way to remove dry rot. He says that a thorough draught will destroy the parasite within tempty-for hours. If the action of draught be assisted by that of santlight, a few hours will often suffice to put a stop to further damage. A concentrated solution of common salt is very efficacious, and the stronger it is used the more rapid its action. The action of a concentrated solution of couries and has the common salt. Crude carboile nicid is rapid in its action and cheap, but inconvenient to use. But he considers that the best, cheapeat, and sost convenient material to enaploy is the tar obtained when birch wood is distilled for acetic acid; the under surfaces of the flooring are painted with the time.

IMPROVED BRICKS.—For Obtaining products that will offer greater resistance to humidity, etc., than ordinarily is the case, an improved process of manufacturing bricks has been brought forward in Germany. After drying and grieding the Cut, a mixture is made of gift, parts of the latter, a parts of fron filings, a of table salt, 13/ of potash, and a of elder or willow wood other. The whole is heated to temperature rarying from 3,362 to 3,622 ha. At the end of from four to five hours the argillaceous mixture is run into molds, then re-baked in the ovens—always protected from the air—at a temperature of 842 to 928 ha. The product may be variously colored by adding to the above quantity two parts of maganese for a violet brown, one part of maganese for a violet town, one part of arsenite of oobsit for a blue, two parts of antimony for yellow, and one and a failf parts of arsenic and one part of oxide of time for white.

In the new system of electric bells invented in England and now being introduced, says the Boston Journal of magnet box is dispensed with and the hemispherical bell is replaced by one of the church type, inside of which is the electro magnet, the latter being a single solenvidal magnet of special construction, and by it the armature is attracted by both poles simultaneously. By this means less than half the usual quantity of wire is required, as reducing the external resistance of the circuit one-half. Moreover the annature, besides being magnetized by induction, as acted on in the ordinary method, is directly polarized by being in actual magnetic contact by the connection of the ginhal-which is in one piece with the armature-with the core iron of the magnet, and it is thus induced to perform the largest amount of work illest electro motive force. Again, instead of the with the sm armature and elapper being in a straight line attached to a rigid spring, which necessitates a considerable attractive power to primarily give it momentum, this new system has the armature and hammer in the form of an inverted U, and being perf balanced from the point of suspension, the lines of force from a comparatively small magnetic field suffice to send this improved form of armature into instant regular vibration. By using a flexible break-and-make arrangement, a better result is attained.

TESTS OF WOOD FOR BUILDING .- J. B. Johnson, director of the U. S. Testing Labortory, at Washington University, says: Manufacturers, builders, architects and too many engineers rely solely on the tables and formulæ given in the trade or engineering handbooks. They know nothing of the original experiments from unable even to which the tables are derived, and too often ar verify the truth of the formulie. As a matter of fact, the portions se books referring to the strength of materials, and esp of wood, were based on experiments on small specimens and were made about 100 years ago! Some of the arguments in favor of a new test are given below. All the old tests were made in England, and, as already remarked, on small specimens. The Western American woods have never been fairly tested for strength. Such tests as have been made on large specimens of American have shown the strength to be only about one-holf what all the tables give them. Many cheaper kinds of timber may prove more valuable for structures than more expensive varieties, which have been supposed to be stronger. Thus pine supports or pillars have been found stronger than oak ones, when tested in full-sized samples. Notches cut in beams or joists, whether at the ends or in the middle, have been found to weaken the pieces a great deal more than is generally supposed. When a joist is notched into a floor beam or header, it is only about one-half or one-fourth as strong as when left full size and resting on the bottom. It always splits from the notch. If the portion below the notch be slop off so as to be the full depth at the middle, the strength is doubled. That is to say, by removing a portion of the joist (in case of a notch), the strength is increased. This scens paradoxical, but it is true in practice and consistent with theory. It then does not fail by splitting from the end, but by breaking apart in the middle. The shearing or splitting strength of timber is of great importance in structures and is almost always overestimated. A few well-arranged tests will give more information to than all the tables in the handbooks on these matters, tion to the designer

BUILDING MATER	IAL	S.	Yellow othre	6%	12 25	CEMBRT, LIME, etc.	Cutting up planks, 136 and thicker, dry 25 00 26 co	
			Green, chrome	7	12	Portland Cement	Dressing stocks	
<del></del>			» Paris	30	49	Walsend, per bbl., 2 ; Francis & Son, "Vectis." 2		
Foundation: (Wholesale Prices.)			Black, lamp	17	75	Francis & Son. "Vectis," " 2 ;		
Dimension			Oil, linseed, raw (9 /mp. gal.)	15	5655	White's Cement, " 2 1	Cedar for block paving, per cord 5 00 Cedar for Kerbing, 1 x 14, per M 31 00	
Block			" " boiled, "			Ouceaston Canadian Cement. + 1	i. n.	
Rubble			_ n refined, n		59	Grev Lime, per a bush, harrel, bulk	t	
			Turpentine, w	55	59	White war		
Blucatono: (# sq. ft.)			Varnish, coach, "			Hair, per 40 lb. sack t		
Sidewalk	106	⊕ 5 00	Shellac, "		.17	Plaster Paris, N. II., per bbl 2 1	n undressed 14 00	
Planed	50	8 00	Putty	23/4 75	31/4		н dressed 16 оо 20 оо .	
			Paris white, Eng., dry 1	75	1 50	LUMBER.	и undressed 12 00 14 00	
Sandstone:			Litharge, Am., a	616		CAN OR CARGO LOTS.	Beaded sheeting, dressed 18 00 20 00 Clopboarding, dressed	
Longmeadow		8o	Sienna, hurbt	15	20		YYY camp chinoles one M	
Kibbe		90	Umber, ii		12	1 % and thicker elear picks, Am. ins \$34 00835 0	Sawn lath 9 25	
Hrown, Connecticut						s) and thicker, three uppers, Am. ins 40 o	Red ook	
Amherit ) Berea Ohio,	90	95 1 00	BRICKN M.			t x to and to dressing and better 30 00 22 0		
Bertin John,	75 75	1 00				1 x 10 and 12 mill run		
Helleville	66	1 75	Canadian, common (half and half)		B 00	t x to and 12 dressing 14 00 16 0	When sell No sends	
New Brunswick and Nova Scotta		1 00	# face		10 00	1 X to and 12 common 12 00 13 0		
Саеп			" hard (sewer)		8 00	I X 10 and 17 spruce culls 10 00 11 0		
Marble: (# cu. /t.)		•	w pressed		18 00	1 inch clear and picks 24 00 26 0		
					30 00	1 inch dressing and better 18 co 20 c	, 31. JURN, R. B.	
Lee, Mass			Common: Careo affeat.			4 ioch sidiog, mill run	Aron, etc.	
Rulland, white and blue Surperland Falls						1 inch siding, common 12 00 13 0	Refined, \$100 to or ordinary sire 2 25 0 00 Common, 100%	
Glen's Falls, black	,	1 75	Pale			z inch siding, ship cults 20 00 12 0 z inch siding, mill cults \$ 00 9 0		
Italian, blue-velned				6 00	7 00	Cull scanting \$ 00 9 0	Anchors. 9 b	
a sleasa			Up River	7 50	• 00	11/2 and thicker cutting up plank 22 00 25 0	Chain cables, 4 m 6 03 0 00	
Tennessee, red			Haverstraw Bay, and		7 50	z inch strips, 4 in. to 6 in. mill 14m 14 00 15 a	Rigging chains, ₹1 tb 0 03 0 335	
Pennsylvania, blue			ISL		·8 eo	1 inch stripe, common	Lime.	
Vermont, white			Hollow		13 00	1% inch flooring 14 00 15 0	Casks 1 10 1 15	
			Fronts:			XXX shingles, sawn \$2 40@2 5	Lumber.	
State: Roofing (Piguarr).			Course house			XX shingles, sawn 1 30 1 5	Spruce deals, Bay Fundy Mills 8 oo 8 25	
. green	\$ 00	6 00	Croton, brown	10 00	14 00	Lath, sawn		
" unfading	5 00	6 00	0 red	11 00	:3 %	YARD QUOTATIONS.	Aristook P. B., Nos. 1 and 2 49 00 45 00	
+ purple	5 60		Chicago premed		.,	="	No. 3 30 00 33 80 No. 4	
* jedi		10 00	moulded			Mill cult boards and scantling 10 0	Aristook P. B. shipping 15 00 16 00	
" black, Lebigh	3 30	4 00	Baltimore. Glen's Falls, white	37 <b>0</b> 0	41 00	Shipping cult boards, promiscuous	Common	
unfading black, Mon-			Philadelphia	30 00	33 00	Widths		
son, Me	\$ 50	8 00	Trenton	15 00	26 00	widths, stocks	Spruce scantling (unst'd) 7 00 8 00 5pruce, dimensions 21 00 34 00	
u black slate		7 50	Milwaukee			Scantling and loist, up to 16 ft 12 o	Pine citriboards, extra	
Tiles, American, W M			Moulded:			11 11 18 ft 14 0	No. 1	
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PAINTS. (In ell, \$ 16.)			Clark's Glens Falls, red	s co	<b>#7 00</b>	н н зай 17 о		
E-MAN 20: (18 011, W 10.)			White	96 00	35 00	ო ო არჩ ახი		
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n sinc. Con	616	140				н н 30 б 96 ос н н 13 б 81 ос	Nalls.	
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H Venetian	654					ч н 36 ∩ 94 фс	Cut, other sizes 9 74 3 50	
w vermilion			Enamelled (edge)	5 00 1	00 00	н w 38 ft ′ э7 ос	Ship Spikes 3 70 5 00	
H Indian, Eng	to	12	Ename/ied (edge and end) 90	90 1	15 00	" " 40 to 44 ft" 30 cc	Galvanized 5 85 6 50:	
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