

CONCRETE FOR BUILDING PURPOSES

(Miners Journal Pottsville, Pa.)

The first of the second series of the lecture course, under the auspices of the Philadelphia & Reading Coal & Iron Company, was delivered last evening in the old Methodist church building, on Second street.

There was a large attendance of mine officials present from Pottsville and the towns and villages in the vicinity.

The firm with which Mr. Laidlaw is connected has a force of men engaged in building a breaker at the Pine Hill operations of reinforced concrete, a full and complete account of which was published recently in the Miners' Journal.

Gentlemen:—I have come here this evening for the purpose of presenting to you a few ideas as they appear to me on the subject of reinforced concrete. I have come here not especially as the representative of any patented system of reinforcing but as an exponent of reinforced concrete in its broader sense, and I will endeavor to point out to you, for your consideration the advantages of this combination—steel and concrete—when properly designed and constructed with a moderate amount of care.

Reinforced concrete, as its name implies, consists of a combination of materials—concrete strengthened where it is weakest with steel bars imbedded therein.

As this subject is a very extensive one it will be entirely impossible for me to touch on every phase of this question in such a short limit of time, but I will try to cover the subject generally and as simply as possible.

The advantages of concrete as a building material have been recognized for a great many years, but its uses have been entirely confined to foundation work until within the last few years. The impetus given to building led investigators to look around and see if some material or combination of materials could not be found that would eliminate the many objectionable features they had to contend with in modern construction.

Concrete was known to be an excellent material when used so that it had to resist pressure only—such as foundations, but on this account its uses were materially confined, but the ease with which steel bars could be introduced into the mass in order to strengthen it, was soon recognized and taken advantage of—the idea being to introduce a material which would take care of tension stresses or pull, which the concrete in itself was not capable of doing, i. e. concrete is the cheapest material known to take care of pressure or compressive stresses, while on the other hand, steel is the cheapest for pull or tensile stresses, so that if the various members of a structure are so designed that all of the compressive stresses are taken by the concrete and steel is introduced to take care of the tensile stresses or pull, each material will be serving the purpose for which it is cheapest and one of the principles of economic design will be fulfilled.

The advantage of reinforced concrete are many. The steel and concrete act entirely in unison with one another as they expand and contract in almost exactly the same degree under variations of temperature.

FAMOUS PEOPLE BY FANNIE M. LOTHROP



Photo by Mall, New York.

MAY IRWIN A Leading Canadian Comedienne.

One of the leading comediennes of the American stage to-day, is May Irwin, a daughter of Canada. In these days of Ibsen plays with their dull dreary pessimism; of problem plays portraying the morbid pathology of the emotions; of society plays with their whipped cream of forced epigram on the pulpy base of a thin plot; and of melodrama that puts a dime novel into the dress-cut of respectability, it is a relief to turn to something that gives us a hearty wholesome laugh and leaves no bad flavor in the mouth, no later regret. Laughter is one of the safety valves of civilization, it is a needed vent in an age of strenuous living; and a genuine apostle of laughter is May Irwin.

Her power is her personality, her naturalness, her spontaneity; her bubbling contagious good spirits establishing a telepathic sympathy with her audience which creates a continuous ripple of fun and laughter that defies analysis.

The daughter of Robert E. Campbell, Miss Irwin acknowledges that she was born in 1862—"tho' she doesn't look it" of course—in Whitby, Ont., where she spent her early girlhood. At the age of eight she was a soprano in the church choir of her native village and sang at every opportunity and with the slightest provocation, as naturally as a bird sings,—without a Marchesi training. At thirteen the death of her father threw upon her and her sister Flora the duty of money-making, and they made their debut as singers in Buffalo, N.Y. They were billed as the "Irwin Sisters," unknown to them, and accepted the name. They sang "Sweet Genevieve" for their first song; Flora fainted after it was over but May valiantly faced the audience for an encore with the coolness of a veteran.

Engagements in other cities followed quickly on the western circuit, and their third season found them at Tony Pastor's in New York at eighty dollars a week. Seven years of this engagement where improvising was often necessary and the rôles ranged from a babe in arms to a grandmother, gave Miss Irwin a confidence that has never forsaken her, despite her statement that she cannot take her initial cue at any performance without a little quail of uncertainty and fear of the audience. Augustin Daly who had a keen eye for new talent, gave her an excellent post-graduate course of four years in his theatre, which was a splendid training school, and prepared her for her later successes. At the age of sixteen she married Frederick W. Keller who died eight years later leaving her with two sons—her loving comrades and the pride of her life.

Entered according to Act of the Parliament of Canada, in the year 1906, by W. C. Mack, at the Department of Agriculture.

Concrete are many. The steel and concrete act entirely in unison with one another as they expand and contract in almost exactly the same degree under variations of temperature.

Its fire resisting qualities are very high, surpassed by no other building material except fire brick. These qualities are now put beyond doubt by numerous tests, some made to the purpose and others the result of the disastrous fires at Baltimore and Toronto it is clear that very little confidence can be placed in the use of metallic framework covered with refractory materials.

It is unaffected by the weather and improves with age, the steel being perfectly protected from atmospheric action.

The combination lends itself very readily to every design, no matter how complicated, and the benefits of entire monolithic constructions are obtained. Joints are no longer the weakest part of the construction and all stresses are resisted in an ideal manner. Its rapidity of execution is

a desirable feature and in large cities where night work has to be carried on, the objectionable feature due to noise from riveting is entirely eliminated.

It is the most rigid construction known, yet at the same time it resists the effects of shocks and distributes the stresses over a greater area on account of its monolithic action, thus reducing their effect.

The mixing of cement, sand and stone to form concrete is no doubt familiar to you all, so I will not touch on this point.

The construction of forms is the most important part of the erection of structure out of reinforced concrete. It takes up the most time and seriously enhances the cost of the work. In the design of centering the constructor has an opportunity to exercise all his ingenuity: to use wood which can again be employed and to avoid cutting the wood into short lengths and so causing a waste of material.

I will now briefly describe to you the system used in reinforcing the new coal breaker at Minersville for the Pine Hill Coal Co. This method of reinforcement, called the Kahn system, depends on a special shaped bar rolled in the form of a winged diamond. These wings are sherrd up from the bar and kept at an angle of about 45 degrees. The length of the prongs depend on the depth of the concrete required above the bar and the number of prongs depends on the length of the span. Thus it will be seen that each bar in a structure in this system is designed for a special place and as the bars are given corresponding numbers in detailed drawings and on the steel itself, you can be reasonably sure that your structure will be built according to design. This construction requires less skilled labor than any other and on this account considerable saving can be made. The prongs firmly bind the upper or compression part to the lower and also prevent any slipping as it would be necessary to shear off the prongs before the bar could slip. You have an absolutely perfect connection between the vertical and horizontal members and also have your steel placed in a position where it has the greatest efficiency and a minimum amount of labor. Another important consideration is the truss and arching action obtained by this system, resulting in a greatly reduced deflection under a given load.

Chamberlain's Cough Remedy the Best and Most Popular.

"Mothers buy it for croupy children, railroad men buy it for severe coughs and elderly people buy it for la grippe," say Moore Bros., Eldon, Iowa. "We sell more of Chamberlain's Cough Remedy than any other kind. It seems to have taken the lead over several other good brands." There is no question but that this medicine is the best that can be procured for coughs and colds, whether it be a child or an adult that is afflicted. It cures and cures quickly. Sold at Parker's Drug Store.

DON'T DOSE THE STOMACH.

Hyomei Cures Catarrh by Breathing Aromatic Healing Air.

You cannot afford to risk permanent loss of health by taking strong drugs into the stomach in the vain hope of curing catarrh of the nose and throat. The only true way of curing catarrhal troubles is by the use of Hyomei, which is breathed through a neat pocket inhaler that comes with every outfit.

Hyomei is not a secret remedy, and its formula is given to all reputable physicians. Its base is the famous eucalyptus oil. This is combined with other healing aromatic gums and balsams, so that when using Hyomei, the air you breathe is filled with germ-killing, health-giving, curative powers. It kills all catarrhal germs and restores the mucous membrane of the nose, throat and lungs to a perfectly healthy condition.

The complete Hyomei outfit, consisting of a neat pocket inhaler, a medicine dropper and a bottle of Hyomei, costs but \$1.00, and extra bottles can be obtained for 50 cents, making it the most economical method of curing catarrh, as well as the most reliable.

If you cannot obtain Hyomei of your dealer, it will be forwarded by mail, postage paid, on receipt of price. Write to-day for consultation blank that will entitle you to services of our medical department without charge. The R. T. Booth Company, Hyomei Building, Ithaca, N. Y.

ENFORCED QUARANTINE.

A case of enforced quarantine was necessary on the east part of the town this week. A case of contagious disease existed in the house of a colored man named Boey near the corner of Garafra and Division streets and another colored man named George Harris who lives on Douglass street further north, was going about freely between the placarded house and his own. On Tuesday the authorities undertook to get Harris into the quarantined house and keep him there. He was found in his own cabin inebriated drunk, and it was only after a good deal of manoeuvring that he was finally got into the deserted quarters, as the officials did not want to lay hands on the man but used threats when e treaties failed. After Harris was safely housed the next question was how to keep him there, and for this purpose a picket was posted near the cabin with a shooting iron and authority to wing the prisoner if he tried to escape. Tuesday night the storm came and the picket was under the necessity of having shelter and therefore a corporation toolhouse was loaded on a dray and hauled up to the spot, also a stove and firewood to keep the picket warm. The victim of quarantine, when he essayed to leave the cabin, was plainly warned by the picket that he must go back or the gun would go off and in this way he was kept on the spot. The authorities feel the necessity of adopting stringent measures for preventing the spread of contagious diseases which have been pretty well kept in check so far.—O. S. Advertiser.

Women With Weakness.

For all weakness from which girls and women suffer, no surer remedy exists than Dr. Hamilton's Pills. They maintain that bracing health every woman so earnestly desires; they unroot the disease, and bring strength that lasts till old age.

"No medicine could be more beneficial than Dr. Hamilton's Pills," writes Mrs. Mary E. Ayrton of Victoria. "I have been strengthened, my digestion is better, I have improved in color and feel considerably better, since using Dr. Hamilton's Pills." Sold everywhere, 25c. per box or five boxes for one dollar.

WINTER ON THE FARM.

Down on the farm in winter. When all the ground is hid Witu ice and snow a foot or so And plowing can't be did. Life must be worth the living. The time when nature snores The hours away deep in the hay. With nothing to do but the chores.

Nothing to do but the chores, boys. Nothing to do but the chores. It's watering stock and feeding the flock And hauling the crop to the stores; Building a roost for the chickens, Fixing the corner floors, Throwing down hay three times a day— Nothing to do but the chores!

In summer there is plowing And pitching heavy hay, But in the prime old winter time We rest up, so they say; Just loaf and be real lazy And sit around indoors. Rest as the soil, from summer's toil, With nothing to do but the chores.

Nothing to do but the chores, boys. Nothing to do but the chores, It's slopping the swine and milking the kine And banking the cellar doors, Putting up ice for the summer. Chopping down trees in scores. Batching shoats and fanning the oats— Nothing to do but the chores.

BELLS

Now is the time to buy your Bells as we are selling them at cost. Below are a few lines which we are offering.

- 6 strings of 20 bells, regular \$1.10, now 75c.
4 strings of 30 bells, regular \$1.40, now \$1.00.
2 strings of 40 Bells, regular \$1.75, now \$1.25.
2 strings of 40 bells, regular \$1.25, now \$1.75.

We also have a number of open bells and shaft gongs which we are selling away down.

SKATES

Don't miss this opportunity as they won't last long at the following extremely low prices.

- Boker's Beauty, regular \$2.00, now \$1.50.
Boker's Charm, regular \$1.75, now \$1.30.
Boker's Perfect, regular \$1.40, now \$1.00.
Regal Hockey, regular \$4.00, now \$3.25.
Boker's Dominion, regular \$2.50, now \$1.75.

F. E. SIEGNER DURHAM.

NEW ADVERTISEMENT.

H. H. Miller

THE HANOVER CONVEYANCER Now offers the following:

- 100 ACRES, south-west of Varney, in NORMANBY. An extra good farm and well improved. Owner anxious to go West.
150 ACRES, BENTINCK, north of Allan Park. Well improved and offered very cheap.
125 ACRES, on 18th Concession of NORMANBY. Well improved and well located. Offered cheap. Will rent if not sold.
100 ACRES, BENTINCK, near Rocky Sausage. Good farm with good timber. Will sell cheap.
DURHAM RESIDENCE, belonging to Mr. J. L. Browne, photographer, offered at a snap price.

MONEY TO LOAN at lowest rates. INSURANCES PLACED in No. 1 Companies at low rates. DEBTS COLLECTED. BUSINESS DIFFICULTIES arranged. C. P. R. TICKETS for sale to all points.

H. H. MILLER.

Clearing Sale OF Winter Goods

Now's the time to buy your Winter Goods. We are selling all winter goods at Reduced Prices. . . . .

15 Ladies' Skirts to Clear

Skirts that were \$3.50 now \$2.75
Skirts that were 4.00 now 3.10
Skirts that were 5.00 now 4.00

Men's, Boys' and Children's Suits & Overcoats at similar reductions. . . . .

C. L. GRANT

Pumps.

I BEG LEAVE TO INFORM MY CUSTOMERS and the public in general that I am prepared to furnish

NEW PUMPS AND REPAIRS, WELL DRILLING, RE-CURRING AND PRESSCURRING done with Cement concrete.

ALL ORDERS taken at the old stand near McGowan's Mill will be promptly attended to.

ALL WORK GUARANTEED at "Live and let live" PRICES.

GEORGE WHITMORE.

To the Public

I HAVE PURCHASED THE Bus and Dray business from Mr. John Vollet, and wish to announce to the people of Durham and vicinity, that it will be my aim to make the business so successfully carried on by my predecessor for the past two years, more successful than ever.

All orders promptly attended to. Phone No. 13.

W. J. WALPOLE

Lower Town, - Durham, Ont.

Logs Wanted

Basswood, Soft Elm and Rock Elm—\$10.00 to \$15.00, according to quality. Beech, Birch and Maple—\$8.00 to \$12.00.

Hemlock, Spruce and Cedar—\$8.00 to \$10.00.

DURHAM FURNITURE Co., Ltd.

For Sale.

DURHAM BULL—BRED FROM imported stock—aged 14 mos. 4-year old Clyde mare. Building lot on Bruce St. Brick house on Bruce St. Apply to W. LEGGETTE, Rocky Sausage.

Farm for Sale.

CONTAINING 100 ACRES, BEING Lot 14, Con. 4, N. D. R., Glenora. About 85 acres cleared, balance in grass. Hardwood bush. Well watered, well fenced. Good frame house, bank barn and 2000 bush wheat. Good bearing orchard, also twenty-five acres ploughed, four acres tall wheat. Possession may be had Mar 1st. For further particulars apply to DONALD BEATON, Prop., POMONA P.

Farms For Sale.

A FINE STOCK FARM 4 miles from Durham, with nice brick house, stone barn, good fences, abundance of water. The property comprises 150 acres of land, of which nearly all is cultivated. The owner is giving up farming and a property is offered at a sacrifice to a purchaser. Only small payment required down.

TWO LOTS IN THE TOWNSHIP OF GLENELG will be sold either together or separately. Each comprises 100 acres or on each there is a good house. These farms are about seven miles from Durham and are offered for sale very cheaply. One is especially all in grass and would suit anyone looking for a grass farm. For further particulars apply to MACKAY & DUNN, Vendor's Solicitors, Durham.

Farm for Sale.

BEING PARTS OF LOTS 62 AND 63, Bentinck, Con. 2, W. G. R., in the Township of the Town of Durham. The farm consists of 42 1/2 acres—about 4 acres woodland, the balance under grass. Comfortable dwelling and good comfortable outbuildings. Small orchard just the kind of place for a dairy farm or market gardener. Sold at right price and on easy terms as the proprietor tends going west and wishes to dispose of the property. H. BURNETT, Proprietor, DURHAM, Ont.

Good Farm for Sale.

ON THE GARAFRA ROAD about six miles from Durham. Good title. Possession at once. Good land. May be sold. For particulars apply to J. P. TELFORD, Durham. Feb. 22nd 1905.—tf.

For Sale or Rent.

LOT 51, 52, 53—Sideroad 50, 1/2 miles north of Priceville. Farm in first class condition. Good buildings, running stream convenient to the barn. For further particulars apply to DUGALD D. McLACHLAN, Priceville P.

Park Lot For Sale.

PARK LOT NUMBER 13 NORTH of Saddle street in the Town of Durham, in the county of Grey, containing acres more or less. For terms and particulars apply to J. P. TELFORD, Durham. Dec. 2.—tf. Vendor's Solicitor, Durham.

Houses for Sale.

BRICK OR FRAME—APPLY TO J. W. CRAWFORD. Also several building lots.

House and Lot For Sale

ON BRUCE ST., DURHAM, NEAR the brick house, 30x32; 2 1/2 stories high; double cellar, cement floor, one half, furnace in the other half. Small barn with stone stable underneath. Convenient to station. Furniture Factory and Creosote Separating Works. Will sell cheap quick purchaser. The owner is going West.

For further particulars apply to WM. LEGGETTE, Box 92, DURHAM.

For Sale.

THE PUMP SHOP, BUSINESS good will and property of the well signed is offered for sale, either separately or en bloc. Will be sold cheap to a buyer. Good stock of material, tools and machinery in good shape. For further particulars enquire on the premises.

WM. J. CONKEY, Priceville. Jan. 11—2mpd.

Normanby Farm for Sale

LOT 21—IN THE SECOND CONcession West of the Garafra Road in the Township of Normanby, in the County of Grey. For particulars apply to J. P. TELFORD, Barrister, Durham. Jan. 3, 1906.—tf.

Sydenham Mutual Fire Ins. Co. ESTABLISHED 1869.

Insures farm buildings and contents, dwellings and contents in towns and villages. Everything in a dwelling is covered by one sum. Contents of out-buildings, includes all the farm produce generally. Stacks and live stock from fire or lightning the widest range of insurance at the lowest rates. If your insurance expires this year it will pay you to insure in the Sydenham.

Drop a card to J. H. McFAYDEN, Agent, DURHAM P. April 17th—6m.

Facts For Purchasers

We have the following goods to clear at the following prices:—

- TWEED CAPS, regular price 50c, now 35c.
GIRL'S BOOTS, regular price \$1.00, now 50c.
BOYS' BOOTS, regular price \$1.25, now 75c.

Remainder of our heavy course RUBBERS at reduced prices.

New Footwear

Women's Dongola Shoes, patent leather toe cap, at \$1.50 to \$2.25 per pair. Men's Split Bluchers—Men's Kip Bluchers—Men's Dongola Bluchers—Men's Dongola Oxfords, all at right prices, and ALL NEW GOODS.

Any amount of GOOD BUTTER wanted. Bring it along while prices are good.

C. McArthur DURHAM

For Good Groceries

Flour and Feed



Clydesdale Stock Food Co.

Clydesdale Stock Food and Remedies

ROYAL HOUSEHOLD FLOUR \$5.25 per Ebl.

MATTHEWS & LATIMER THEOBALD'S OLD STAND.

New Resolutions

Every person makes more or less good resolutions at the beginning of a new year. Let one of them that you have resolved to buy your

GROCERIES

From us. We always keep a well assorted stock on hand, and at the lowest possible prices. You will always find our Groceries fresh and clean.

S. SCOTT

DURHAM, — — ONTARIO

Henry's Repair Shop

All kinds of Re-storing done neatly at the lowest of prices.

Skates Hollow Ground

Saws Gummed

Locks, Guns and Umbrellas Repaired

Henry's Repair Shop

NEXT DOOR TO CARSON'S

SOUVENIR RANGES are famous for

their superior cooking qualities and simple construction

A SOUVENIR RANGE is all that a first class range should be:

Duplex Grates, Aerated oven, Locked tops, Direct Draft Damper, and special Fire Box all combine in making

SOUVENIR RANGES the best on the market

A TIME AND COAL SAVER - USED IN THOUSANDS OF CANADIAN HOMES

The Gurney, Tilden Company Manufacturers Hamilton Toronto Montreal Winnipeg Vancouver

Our personal guarantee as well as that of the makers goes with every stove. We have Souvenir Ranges on view.

KATE COCHRANE, AGENT, DURHAM, ONT.