

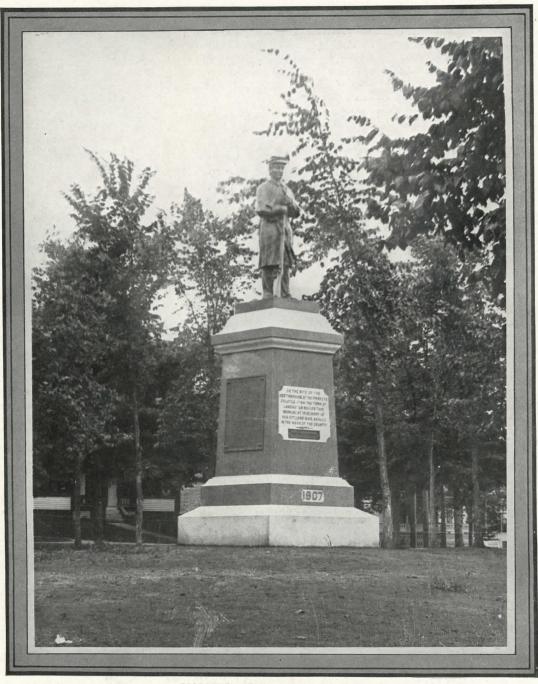
THE BROWN BULLETIN*



VOL. V.

PUBLISHED MONTHLY BY THE BROWN BULLETIN PUBLISHING ASSOCIATION BERLIN, N. H., MAY 1, 1924

No. 11



SOLDIERS' MONUMENT, LANCASTER, N. H,

THE BROWN BULLETIN

Vol. V.

MAY, 1924

No. 11

Editor—G. L. Cave Associate Editors-A. L. Laferriere, H. A. Chase, John Heck Assistant Editors—Joseph Hennessey, Lynn Madan, Arthur Thomas Technical Editor-Harold P. Vannah Photographs—John Graff Cartoons—George Prowell, J. Dawe Poetry—C. H. Goldsmith Business Manager-Gerald Kimball

BOARD OF DIRECTORS

UPPER PLANTS P. W. Churchill Walter Elliott G. A. Richter

SULPHITE MILL A. L. Laferriere Stark Wilson Arthur Thomas CASCADE MILL Jos. Hennessey O. P. Cole Arnold K. Hull BROWN CORP. W. L. Bennett W. L. Gilman John Heck

PORTLAND OFFICE Harry D. Currier

REPORTERS

UPPER PLANTS JPPER PLANTS
Peter Beaudoin
M. H. Griffin
W. E. Haynes
Avery Lord
H. E. Malloy
Elizabeth McLellan
M. Oleson
Eva M. Young
Eli Stilson
Eleanor Bailey
Verona Davenport
Eli Marcoux

Roscoe E. Brown Reginald B. Cooke Harold S. Chellis

SULPHITE MILL Stanley Cabana
Benny Dale
M. C. Frost
J. Snyder
M. B. Covieo
E. P. Smith
J. M. McGivney
W. E. Sullivan Jack Cavagnaro

CASCADE MILL E. A. Byrd Edward Fitzgerald H. L. Hayden Leo Landrigan John E. Lepage Frank X. McNally Joseph W. Means F. J. Smith

PORTLAND OFFICE George M. Fozzard Geo. E. McGlauflin Peter G. Peterson

ROWN CORP
V. A. Beede
John Carter
J. S. Cassidy
J. C. Corbett
H. B. Curran
R. Guimont
F. E. Howell
L. P. Jutras
A. S. Meland
F. A. Smith

BROWN CORP.

William E. Perkins Leonard W. Stack John H. Vanier

SERVICE DIRECTORY

BROWN COMPANY DISTRICT NURSING DEPARTMENT (Established 1903) (Affiliated with Metropolitan Life Insurance Company since 1916)

Miss E. A. Uhlschoeffer, Supervising Nurse; Mrs. Laura Steady, R. N., Assistant Supervisor and Child Welfare Nurse; Miss Dorothy Goodwin, R. N., and Mrs. Margaret Willard, R. N., District Nurses; Miss Martha A. Fagan, R. N., Miss Gertrude Kennedy, R. N., and Mrs. Maurice Hutchins, R. N., Industrial Nurses. Office, 22 High Street; telephone 85: office hours, 8-8,30 a. m., and 12,30-1.30 p. m. Calls for a nurse may be sent to above office, to Metropolitan Life Insurance Company office, telephone 283-W, or to any Brown Company time office. Working hours (except for emergencies) 8 a. m., to 6 p. m. A nurse answers all first calls from any source, but may not continue upon a case except a doctor is in charge.

BROWN COMPANY SURGICAL SERVICE

L. B. MARCOU, M. D., Chief Surgeon, 275 School Street H. E. WILKINSON, M. D., Assistant, Office 33 Main Street On call duty: February, June, October, April, August, December NORMAN DRESSER, M. D., Assistant, Office 143 Main Street On call duty: January, May, September, March, July, November

BROWN COMPANY RELIEF ASSOCIATION

Open to all employees except those eligible to Burgess Relief Association Sec., P. L. Murphy, Cascade Treas., E. F. Bailey, Main Office Pres., A. K. Hull, Riverside Vice-Pres., Peter Landers, Cascade

EXECUTIVE COMMITTEE

Irving Teare, Riverside J. B. Morneau, Riverside B. L. Barnett, Cascade T. D. Walsh, Cascade A. N. Perkins, Cascade

Alec. Martell, Cascade C. J. Oleson, Upper Plants Olaf M. Nelson, Saw Mill Walter E. Haines, Box Mill

BURGESS RELIEF ASSOCIATION

Pres., J. J. McKinnon Vice-Pres., James Moody

DIRECTORS John Cavagnaro Leo Frechette Auditor, E. Chaloux Sec., Mark Frost Treas., Jas. McGivney

A. W. O'Connell W. C. Thomas

BERLIN PUBLIC LIBRARY

The following books were added to the Library during the month of April:

Fiction

The Wrath to Come-E. P. Oppenheim. The Black Gang-Sapper.

Bardelyn the Magnificent-Rafael Sabatini.

The Frozen Trail—Austin J. Small. The Fabulous Forties-Meade Minnegerode.

The Fir and the Palm-Elizabeth Bibesco.

Easy-Nina Wilcox Putnam. A Cure for Souls-May Sinclair. Wandering Stars—Clemence Dane. Vindication-Stephen McKenna. The Lonely Furrow-Maud Diver. So Big-Edna Ferber.

Non-Fiction

Revolutionary New England-J. T. Adams.

History made interesting. The quaint laws of the Puritans; inside history of some of New England's important military operations, etc. A very readable and enjoyable book.

Arabia Deserta—Charles M. Doughty. We have waited a long time for this book and the number of readers who have shown such kind patience will be glad to know that it is ready at last. In spite of the number of pages and the many Arabic expressions, it will hold the reader's interest throughout and, when finished, one will agree with those who, years ago, paid large prices for the edition privately printed, that it is the greatest book of travel and adventure ever written.

St. Francis of Assisi-G. K. Chesterton. Mr. Chesterton in his best style. A book, beautifully written, revealing the saint in an entirely new light.

End-William Galapagos; World's Beebe.

"Of the three distinguished men born with the gift of writing of nature-Fabre, Hudson and Beebe-but one remains. In Galapagos he has given us a fascinating account, superbly written and illustrated in half-tone and color, of his latest expedition into a forgotten land which might well have served as a background for the Inferno."

"Far out in the Pacific, and yet not in the South Seas, is a cluster of cold volcanos which, over three hundred fifty years ago, was known as the Enchanted Isles. The Seventh Lord Byron had seen them, had stumbled over their ragged lava, and was astonished at the tameness of the birds; Robinson Crusoe was brought there

Ed. Boutin A. S. Cabana

by his buccaneer rescuers and must have rejoiced that his luck had not cast him upon these inhospitable shores. Charles Darwin spent over a month on these islands and from observation of the varying forms of bird life, he derived, perhaps, the first inspiration for his Origin of the Species."

Twelve Tests of Character—Harry Fosdick.

An interesting volume of permanent

value, dealing with matters that are essential to the building of good character and maintaining a high civilization.

A Singer's Pilgrimage—Blanche Marchesi.

My Book and Heart—Corra Harris.
Blue Water—A. L. Hildebrand.
Sunlight and Health—C. W. Saleeby.
Little Book of Perennials—A. C.
Hottes.

Fun Book-Edna Geister.

The Gracious Hostess—D. T. Tutes. Rex, the Living Atom—S. P. Colvin. Guide to Paths in the White Mountains—Appalachian Mountain Club.

We are indeed grateful to the local Woman's Club for the gift of the following books:

Book of Operas-Krehbiel.

Manual of History-Ploetz.

History of the United States—Munro. Outline of Literature—Drinkwater.

K

PORTLAND OFFICE

K

Pennant Winners of the Mercantile League Portland, Me., Year of 1908

Pennant winners of the Mercantile League, Portland, Me., year of 1908. Line up as follows:—Ed. Welch, catcher; Harry Hayes, pitcher; Frank Hollywood, 1st base; J. T. Curran, Sr., 2nd base and captain; R. Nugent, 3rd base; W. F. Curran, S. S.; E. O'Donnell, R. F.; A. Sylvester, C. F.; Charles Libby, L. F.; J. T. Curran, Jr., mascot; W. MacCallum, mascot.

All former employees of the Berlin Mills Company.



Tow Row, Left to Right—Richard Nugent, now Police Officer; Edward O'Donnell, Vaudeville Actor; Albert A. Sylvester, Shipper, Brown Company; William F. Curran, Chauffeur, Brown Company; Charles Libby, Deceased.

Bottom Row, Left to Right—Harry L. Hayes, Railway Mail Service; Edward Welch, Manager Sporting Supplies, James Bailey Co.; John T. Curran, Sr., Commission Lumber Dealer; Frank Hollywood, Maying Picture Business

Hollywood, Moving Picture Business.

Mascots, in Front—John T. Curran, Jr., Surveyor, Brown Company; William McCallum, Accountant, M. C. R. R. Office.

Recently Mel Gratto of the retail department had occasion to go to the Grand Trunk wharf to survey several carloads of logs. This reminded Mel of the good old days he has worked in the Maine woods as scaler. When night came on and Mel had not returned to his home in South Portland, searching parties were organized. Several hours later he was found in the woods at Yarmouth hunting for his camp.

The members of the Wishbone Club are looking forward with very much enthusiasm to the evening when Nelson Worthley and Harry D. Currier will give in detail their experiences of their Southern and Western trips.

Wedding bells have not been heard for some time in the door, sash and blind department, but we are going to listen very carefully the next few weeks. Ask Huber.

One think before an accident is worth a million afterwards.

When caution becomes a habit accidents will be few.

A change in the accounting department was made this month, when W. B. Fozzard who has been secretary to the comptroller for the past seven years, was transferred to the statistical department. Arlo C. Jordan, formerly of the Pocohontas Coal Co., is the new secretary.

Because they dislike daylight saving so much, and to avoid all future arguments, Ed and Fred are contemplating leaving town. Fred will probably go back to Buxton, and Ed to Freeport.

SAY IT WITH FLOWERS

BY A. K. HULL

LESSON II

T the beginning we will say that we are not greatly inspired by any beautiful spring weather to enthuse over beautiful flowers that have not even been planted, or else are still under Ma's kitchen stove. But being born and raised before the flapper and jazz age, we know that there is just so much cold, warm, wet and dry weather in every year, and will say that for some unknown reason they are as mixed up as Congress is over the many investigations, in an endeavor to make out all Republicans as crooks. The warm weather will come after awhile, and if your plants are not ready then you will not have your flowers until a lot later, and possibly not at all, though our falls of later years have been very fine.

By the time you will read this, it will be time to have your sweet peas planted. These should be put in as soon as the frost is out of the ground, and in the moistest spot you have (not carrying it to extremes). Dig a trench 15 or 18 inches deep: put in three or four inches of old dressing, making it fine; then put in about the same amount of dirt and mix it up thoroughly; put in more dirt; then make two drills about 8 or 10 inches apart, about 11/2 or 2 inches deep; drop your seed rather freely apart; cover them evenly; and let Old Mother Nature do the rest. The idea of a double row is so that one row of chicken fencing or brush will be sufficient for both rows of your peas. Watch out for lice as they grow, for if left alone the lice will soon ruin them. As they grow, gradually hoe in the dirt. If liable to be a dry spot, leave the drill not quite level full. This gives one a good chance to give them a good soaking. Meanwhile thin out to three or four inches apart.

When your seedling plants are ready to be transplanted into cold frames, see that they have had a few days of hardening off by having the window open some, or setting them out on the piazza. Anyone who has storm windows can have a cold frame easily. Just make a frame on top of the ground the size of the number of sash you want to use, using a sunny exposure.

For a site facing the south and southwest, make the back side the highest, so as to have a good slope to your sash. On frosty nights they will have to be covered. During the sunny part of the day, remove them putting them where the sun does not hit them. Water in the morning when needed. Don't overcrowd your plants, doing so with the idea that you are going to get more out of them, for you will not get anywhere near as much, and at the same time it will hurt the looks of your garden. They may be lonesome with a lot of bare soil between them, but they will grow faster and at maturity will use all the ground space allotted to them.

Just a few words about the final transplanting into the garden. Make sure the dirt has got warmed up quite a bit. Then make your hole with a stick or, as I do, use your forefinger, (soap and water will take off the dirt). Be sure you set your little seedlings down quite deep and press the dirt firmly around them, as they are liable to be weak and lanky and will want to lop over. Shade them for a couple of days. Then let them have light, sun and air. Dame Nature will do the rest.

The time to start transplanting from the cold frames into the garden is when the leaves begin to touch. In preparing your garden to plant, we would say not to use anything but well rotted dressing or Bradley's Phosphate, preferably the latter, as you get no weed seed in that. When planting, use a line. Otherwise your rows would be so crooked that a snake would be liable to break its back trying to follow them. The sure way to make a garden beautiful is to have a well defined plan laid out beforehand and then go at it in a methodical manner, even though it will look to some like a waste of time and energy. You will, if you have the right kind of stuff in you, be well repaid with the results later. It means work but a kind of work that will do both your mind and body good. In fact it will add years to your life. If more people would get up at five in the morning during May and June and put in a couple of hours puttering around

a garden, they wouldn't need salts, aspirin or sulphur and molasses. Some of us garden bugs would rather be caught working in their gardens at 4 a. m., than be caught just sneaking home to bed. What made this great country of ours what it is to-day, the richest and most powerful nation on the globe? Was it accomplished by our fathers, grandfathers and so on back (also mothers and grandmothers) staying in bed until noon or even the awful hour of eight, going without breakfast and dressing on the way to work?

Our race is deteriorating surely, and by no means slowly. Why? Because everybody looks for all play and pleasure, and has no desire to work, to keep up what was left us by our forefathers. Some people may be rich enough to have a flower garden as big as the Garden of Eden, but unless they, with their own hands, participate in a greater or lesser degree in the care of their flowers, they may have a beautiful garden but it won't be their garden. Not only does the care of a garden help us to keep in touch with earthly things, but it provides a happy environment, that is helpful physically and mentally.

One thing surely will have to be done to have a successful garden. You have got to keep the weeds out, for they hinder the development of your plants. They make free use of the food material, and last but not least they spoil the appearance of your garden. "He who sows must reap." We say, "He who sows has got to hoe."

Plenty of cultivation is another good thing, for about all plants and vegetables keep the ground stirred up. It holds the moisture better. God made the Garden of Eden, and the devil must have had a hand in the making of the potato bug, green lice, aster bugs and cabbage worms.

By the 10th of May you might, if your ground is well warmed, be able to put in your gladiolus; by so doing you will get those lovely flowers by the last of July or the first of August.

I am sure I have made some recruits to the home garden club, and surely hope to make many more. The principal requirements are soil, seeds, sunshine, moisture and brains. You may make mistakes. If so, you will profit by them next year. Don't try to plant your garden the first warm day or two or set out your tomatoes the first warm rain we have, just because you see your neighbor lugging home a box of plants. If you will wait until after or about the 10th of June and get some hardened plants, you will beat them all hollow. By training the plants on a stake and

keeping all but two or, at the most, three branches cut out, you will get large and ripe fruit much earlier, than you would letting them all grow to vines and lay all over the ground.

Guess the Old Man will have to amble off to the hay, though he loves the idea of writing on this subject and could go on all night, but perhaps might overdo it. He only hopes that the "Get Up With the Old Crows Club" will gain a few members this coming season.

Spare your criticism and take your spade and go to it. Don't forget to pick up the worms, so you can slip off suddenly after the merry trout.

Here endeth the second lesson.



UPPER PLANTS NOTES





FIRE EATERS OF THE NINETIES

Main Office Folks Enjoy April Fool Party

The Main Office employees enjoyed a lively party at the Y. M. C. A. on the evening of April 1st. And did any one get April-fooled? They certainly did-in more ways than one, because they expected the weather man would not have it snow-and they expected the supper to be something different than it was. It was amusing to see the folks cautiously examine their food before they condescended to partake of the tempting viands. The cherry that cuddled so prettily in the juicy cup of the grapefruit was thoroughly investigated before it was accepted as a real honest-to-goodness cherry. The apple pie was cautiously approached and minutely inspected before it was hungrily consumed. But that chicken pie-which really was chicken pie-was greedily swallowed

without a single question. It was piping hot, quickly and generously served, and wonderfully palatable.

Immediately following the supper the folks relaxed enough to listen to aftersupper speeches. The trouble was, everybody wanted to listen and no one wanted to talk. Mr. Flewellyn, of the Y. M. C. A., came bravely to the front and delivered a prize winning speech, -the prize being a soft, fluffy little chicken. Mr. Flewellyn was delighted and expressed his hearty appreciation to the friends who were so thoughtful as to know that he was always strongly inclined to "chickens." It is becoming more noticeable every day that the fellows of the office force are actually acquiring the habit of being bashfulin public. We wonder what it would be if they took a notion to conduct

themselves in the office in the same manner? We'd all pass in our checks, doubtless.

The crowd finally lined up in readiness to be ushered, one by one, into the presence of Madame Loof Lirpa who was prepared to tell them what they had done in the past, and to unfold the future if so requested. Strange to relate no one wished to ask any questions concerning the future. What they heard about the past proved to be quite sufficient for the evening. This was the one time in the evening that every one was absolutely Aprilfooled.

During the evening snappy games, humorous stunts and lively dancing was enjoyed. Our forestry friends, along with some others, learned a few new tricks. You can't fool them on tossing a spoon and whacking a stick on the floor before passing it along. They learned by experience and they know all about it.

One stunt which caused the most side-splitting laughter was the canewhacking game. Milton Locke and Henry Holland lay flat on their backs, side by side on a long table entirely covered by a sheet. The crowd gathered around the table to watch the fun-and it was fun. Some one in the crowd had a stout cane in his hand and his part in the game was to hit the forms on the table until they guessed who he was. It took poor, abused Henry some time to find out that his partner, Mr. Locke, was the guilty party. He had to learn his lesson by exhibition whereupon he immediately took himself into a corner where he spent some time gently patting his bruised shins. Henry says the cane was not entirely devoted to his shins, either. He still smiles, though.

Our old friend, Skish, won a backward-slide race and received a lollypop which swelled one side of his face quite prominently for an hour or more. The lollypop did not in the least hinder Skish from talking, dancing or playing games.

The party broke up some time shortly before eleven and from the gasping sounds of surprise and dismay that broke upon the air when the crowd beheld the snow-clad world it is vaguely understood that a few folks got another April fool joke played on them-and this by the weather man. Then, young ladies who wore no rubbers were out of luck-but they didn't mind very much. Ford coupes are nice-if there are enough of them to go around,-and besides-it doesn't take much to forget about damp feet, if one has good company along the roads. Everybody seems quite satisfied with the results of the April Fool Party.

"All's well that ends well." And if this is so why not have another party in May. Some one made a motion. It is moved and seconded. Now, all those in favor please show by the usual signs.



MALLOY'S FIRST CREW

MAIN OFFICE NOTES

The window frame department recently contracted a severe case of spring fever. As a result great and marvelous changes have taken place. The rubbish and junk plus four or five inches of thick gray dust have been miraculously removed. The files, desks and tables have been rearranged, so that now the office can meet the eye of the people and stand approved. And the only thing that did it was—spring fever—in other words—a good thorough cleaning.

Edgar Morris says he did the heavy work in rearranging the interior of the window frame department. All right, Ed. The rest of us fellows know you could do it alone, but we thought we'd be polite and donate our little bit of help just for appearances sake.

The chemists are certainly keen on stunts. We saw them pull a new one

the other day when Freddy Djerf and his buddies recklessly climbed through a window down near the laboratory, thus doing away with the long hike way up to the time office and the tedious walk down again. The longest way round may be the sweetest way home—sometimes—but when a fellow is rather rushed to get to work as near one-thirty o'clock as possible, shortcuts are most acceptable—and very sweet. If one has to resort to a few tricks—even conspicuous ones—it is—well—it is humorous, at least.

Cards were recently received by friends of Walter Thoits, a former Berlin boy, announcing his engagement to Elsie Stevens, of Boston. The many Berlin friends extend best wishes.

Born March 18th, Jean Louise La-Rochelle. Mr. and Mrs. Norman La-Rochelle, the happy parents, are well known Berlin young people. Mrs. LaRochelle will be remembered as Miss Olive Oswell formerly employed as stenographer with the Brown Company, window frame department.

April 15th, what happened to Josie? Had she a premonition that it was going to be fair and colder? Anyway she came to work with two dresses on. Just think of that. And the joke was on her for she did not know it until the day was half through. What are these women coming to?

Mary, our mail boy, has acquired the

habit of directing his restless footsteps up over the hill to Denmark street.

We understand there is another sparkler hiding around our office. Why not come right out with the goods—and be in the usual run for showers, parties, etc? Anyway, we think it is very unkind for a person to hide a perfectly good light under a bushel—or hitched to a pink string under a silken blouse. Why not give us a chance to see the light?

Charlie Baker has sufficiently recovered from his recent operation to be moved from the hospital. We shall be glad to have Charlie back at his desk again, and we hope he will improve by leaps and bounds, so that he may be back with us soon.

Eva Young has given up her work with the Brown Company for a short time and is at her home on High street. We hope her father's health will improve steadily so that Eva may come back to her old place in the office soon. We miss her soft voice—and merry ways.

NEXT MONTH

In the June issue, we shall publish a timely article upon protection against forest fires. This was prepared by J. Dawe of the Quebec office. The editors regret their inability to include it in this issue.



FIND THE TALL PINE OF THE ANDROSCOGGIN

Do you know Ralphie Sylvester? A man with a very small chester-And when he eats soup, The poor boob doesn't stoop, So it runs all over his vesta.

Do you know Charlie Baker? I think he looks just like a Quaker. He would run for a skirt, With the girls he's a flirt, But falls like salt from a shaker.

Maurice and Billy of the main office

Are a couple of good looking boys.

Now to make this piece rhyme,
I'll go back to the time,
When they were busy giving out Xmas
toys.

Warren Oleson of the window frame Has many ways of winning fame, But I'd suggest at his first glance To try and improve his way of dance.

Nora Bailey's on my list, Her name is so pretty I couldn't resist, When in doubt just think twice, And go to Nora for advice.

Eva Young, short and sweet, She's the girl with the pretty feet, She's the girl with the baby stare, Now she wants to bob her hair.

> Joe Dubey is his name, Poking fun is his game, But you spring the joke And watch the tables turn. Just strike a match and watch Joe Dubey burn. Hot dog!

LIST OF PROMOTIONS

CHEMICAL MILL

Victor Mortenson from repair man to level man.

Robert Niclason from repairs to exp. repairs.

George Hogan from furnace man to tour foreman.

George Oswell from repairs to furnace man.

MARCH ACCIDENTS

UPPER PLANTS

Serious accidents	(
Minor accidents	16
Without loss of time	32
	-
Total	48

SULPHITE MILL

Serious accidents	
Minor accidents	8
Without loss of time	26
Total	34
CASCADE MILL	
Serious accidents	0
Minor accidents	9
Without loss of time	62
	_
T-4-1	71

The lightning bug is brilliant, But it hasn't any mind; It wanders through creation, With its headlight on behind.

"Pilot Jones died of aeroplane poison."

"How much did it take to kill him?"
"One drop."

NUT PROTECTION

"My word!" quavered the nervous sportsman, "What a dark and fearsome forest!"

"'Sall right," encouraged the guide.
"The squirrels won't hurt if you carry a good heavy stick."

RIVERSIDE SMOKE



Our old friend, Spike, Laconia's most noted product, made us a short visit recently and as usual brought his fork and shovel with him. Too bad we can't have his sunshiny disposition with us at all times.

William Gerou has severed his relations with us for reasons best known to himself.

Wm. Lemere is back at his old job after a ten weeks' membership in the appendicitis club.

William Cantin has left us to improve his baseball education. The best wishes of his many friends go with him and we all hope he will make good.

Everybody with good red blood in his veins hopes that the B. A. A. will furnish as good baseball this season as they did hockey. All it needs is good support and surely in a town of this size that ought to be forthcoming. We don't want to flivver like the short-lived late-lamented Daily Mail.

William Therrien says he smokes nothing but baseball cigars, grounders, and pick-ups.

James Stewart says he always knew there were some boobs in the mill with very little intelligence, but he didn't expect to find anyone with as little grey matter in the place where it ought to be, as the man who inquired through the Bulletin who was boss on his tour. Stewart likes to be accommodating when he can, so if the pinhead will inquire of James personally, he doesn't think he will have any doubts as to who is running his tour in the future.

Alfred Turcotte, our local 4th hand on Stewart's shift has found some new medicine to grow hair. It is called Bear Oil. Why not pass it around on Tourangeau's shift, as he would make a good business.

TOWEL BUNCH

We wonder if Mr. Brosius will ever hire a water boy for Alice Frechette, who always seems to be so dry. The man who writes such good poetry is very foolish to be working in here. We think he would do much better in a blacksmith shop.

If anyone in the Riverside towel room is sick will they please visit Alice Frechette, who keeps a kind of a drug store under her machine. She would be pleased to have customers.

Anyone whose machine goes wrong will kindly call up Eva Michaud, as she is an expert machinist.

Congratulations, Pete, because you're getting well

From this most wretched spell. You'll soon, I hope, be good as new, No need to tolerate the blues, When pains and aches are fled, Life's best joys are ahead.

On March 29th, Pete Vien appeared with his neck swathed in linen. Well, Pete, we have told you before to stop using your neck as a ball bearing in turning wistful glances towards that winsome cutter room.

CASCADE JUICE



K

CASCADE JUICE

K

1924

SCRAPS FROM A NUT'S DIARY

1924

DURING APRIL

- 1. This is All Fools' Day. Arthur Labonte missed the last car at the "Swamps."
- 2. Charlie Ross entertained the Safety-First Committee.

- 3. Sam Hughes appears at Cascade Mill with his great song success "For me and my gal."
- 4. Mike Moffett has no use for a circus, he had an attack of lumbago at a circus in California.
- 5. Bugler Sharpe still has hopes of getting his compensation.
- 6. Our little Battler is in Conway today. Gee, fellers, ain't love grand?
- 7. Harold Woods signs up as sparring partner for little Henry.
- 8. Six M. B. M. shirts sold today. Ten dollars more towards the little house in Forbush Park.
- 9. It used to be Ford Coupes, but now it is Chevrolets.
- 10. Snoop Hayward defeats his bitter rival, Spike Hennessey, 50 to 48, in a straight pool contest.
- 11. Arthur Ross has given up Mexico, Maine. His thoughts now turn to Bastrop, La.
- 12. Two more members for the Cascade Radio Club, Leon T. Dubey and William Boiley.
- 13. Danny Hughes buried the Chalmers today, and bought a Ford. There are some hopes for Dan yet.
- 14. Daddy Soule called Butsie's bluff for a cribbage game today. It was one of the most unique bets we know of.
- 15. Hurrah for the King of Ward One. It is no Teapot Dome for him, he is interested in water.
- 16. John Lepage sells the can. He now owns a Dodge. He knew what to do on March 11th.
- 17. Edgar Perry wins the fur-lined mixing spoon for being the best muffin cook in Coos County.
- 18. W. H. Palmer of the cutter room, dreams of Asquam Lake and the fishing that is there.
- 19. Skibby McNally says, "Me and my friend, Al Smith, of New Yark."
- Today is New Brunswick Day, at Cascade Mill. All hail to our chief, Councilman Patrick James Magnus Hinchey.
- 21. Earl Henderson joins the editorial staff at Cascade Mill. Watch out, you shippers.
- 22. Dave Washburn writes a beautiful little ditty entitled, "Roaming in the gloaming."
- 23. Yes, we have no cow bell for Warren Noyes today.
- 24. Joe Maltais and Mattoo Rivard, our star hockey players, pledge themselves to sing "En roulant ma Boule roulant."
- 25. George Hooper of the boiler house wins the first prize at the old-fashioned dances given by the Moose.
- 26. Aubrey Freeman persuades Litchfield Thurlow to buy a Chevrolet.
- 27. We have had our Hudson Club, but today we organize our Ford Club. Leo Bouchard is president, Levi Paulsen, secretary; and Pat Murphy, treasurer. Sir Leroy Hughes is a dealer.
- 28. "Artie" Eastman has his limericks copywrited.
- 29. Herbert Schnare came to the mill smiling today. The old world brightens up with just a little smile.
- 30. Everyone at the Cascade Mill looking forward to the Bulletin. They must want to read the second instalment of "When to plant a garden" by that great writer, Arnold K. "Old Man" Charlestown Hull, and numerous other titles that would not get by the censors.

FINIS

There is a young fellow named Joe, Call him "Spike" so you will know. With Radio he has a start,

And is worse than Andy and Art, Now we wonder how far he will go.

There's a man by the name of Ross Who in Gorham would like to be boss, But Woodbury is there,

And nailed to the chair, So, Phily, your chance is a loss.

There was a young lady called Hon, And the Hudson she would learn to run,

But Mamma said "No, If you do, you go slow,

For you know Irene does not enjoy such fun."

The post mistress just hove in sight, With a special delivery quite light,

Now M. wears a smile, Gee! Ain't it a long while

Until the Grand Trunk arrives Friday night.

Our sulphite clerk by the name of Bill Has got his antenna up on the hill,

Now the Radio will hum, He will get Mars, by gum!

And the rest of us poor nuts will keep still.

Those desiring a light weight, close fitting rubber boot for swamp hunting that is fully guaranteed not to snag, should apply to L. L. Bean, Freeport, Maine.

Why not put in an order, LaBonte?

Hard work done by some of the men in the mill:

Jack Greenan—"Well, I carried bricks in a bag for the masons, the hod was too heavy."

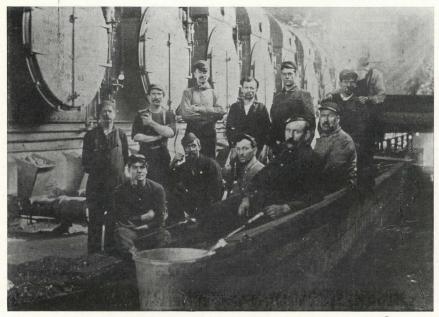
Getchell—"Well, I took a ride in a Ford with my brother."

Joe Lahouse—"I tried to get a full meal at the Cascade cafeteria."

Morrissette—"I worked with a third hand that was in love."

Joe Aubin—"I tried to tell Mr. Hannaford how to run a Ford."

Oh! Boys, here is a record for 24 hens. They are owned by a man named Moses Tetreault who works in the blow-pit room at the Cascade mill. His hens laid 213 eggs in 12 days. There are different ways to feed hens.



CASCADE BOILER HOUSE 1923

Mr. Tetreault has a way all his own. His flock is composed of ten Rhode Island Reds, nine Light Brahmas and five White Opingtons, which are supposed to be fairly good-sized hens. The Light Brahams are some of the largest hens in the flock. Mr. Tetreault thinks that the Light Brahmas are his best layers. Anyone that wishes to see his hens and their records since January 1, 1924, can call at his home and verify these statements from the directory that he keeps for this purpose.

Among us shippers can you imagine these things?

Raymond Summers taking the first load in the morning and afternoon.

Thomas Ross and Carl Johnson meeting without talking "hens and eggs."

Joe Barron telling the truth.

"Short Pete" Gagne with a smile.

Summers in a hurry, except at 12:00 a. m., and 5:00 p. m.

Fissette and LaBonte talking without getting into an argument.

Cunningham getting along with Joe Barron.

WANTED:—A kind, gentle rocking horse, suitable for a young man used to driving automobiles, one that can easily be managed, and that is not particular who rides him; that has no bad habits, that is, which will throw the rider no matter who he or she may be. Price no object—as the applicant is desirous of becoming a proficient eques-

trian, in line for an official position in the C. M. T. C. Address all inquiries to C. A. Walker, Printing Dept., who will receive bids for the party above mentioned.

There is quite a bit of controversy over the reason that Bill Murphy moved off from Mr. Hunt's street; Mr. Hunt says that the wood seems to last longer.

The autos are being driven on the electric cars, and it is a question which is the more popular, the Ford or the Chevrolet.

I understand this issue of the Bulletin goes to Louisiana, Maurice.

Our friend in the assistant editor's office, almost got a ride home from the mill on the 15th of April, when he got out to get the ride though, he thought his calendar had been set back two weeks.

The air is full of chemists at this mill at the time of writing.

Nibroc employes extend heartfelt sympathy to Mr. Harry Corrigan, of the beater room, and his three children because of the death of Mrs. Corrigan.

The attached picture is of Lorin Haggart, son of Fred Haggart, piper at the Cascade mill. Lorin, who is only 11 years old, won the junior dog race during the winter carnival here in Berlin, with his Scotch collie, "Teddy." "Teddy" is 10 months old and takes to the sled like a duck to water. Lorin received a gold medal for first prize.



YOU CAN'T DODGE IT

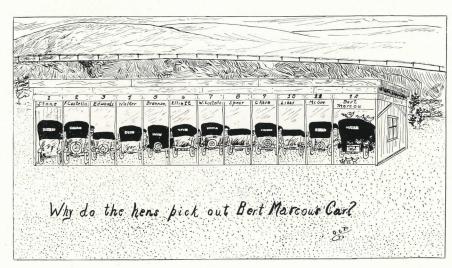
The captain entered the officers' mess kitchen.

"Do I understand that there will be no dessert tonight?" he demanded sternly.

"Yes," replied the new and careless private.

"Yes-what?" roared the captain.

"Yes-we have no bananas."





CHEMICAL MILL EXPLOSIONS



John Labrie took a party of friends for a joy ride in his new Star, but he found out, coming back, that she wouldn't go without gas.

George Hopkins has joined a new organization. He will now be known as the Anti-Saloon leader.

Lawyer Lapointe is now thinking of bringing his Oakland from Vermont, if there is no duty on it.

George Gale's business was hindered last week. He discovered a new leak in his radiator.

Rube McCutcheon and Fred Maloney are now giving lessons on home cooking. Rube has made a success teaching mutes.

Joe Tardiff, our old time socialist, has turned a new leaf. He is now a good old democrat.

As this goes to press, Capt. James is still with us, but looking to the high seas.

Duke Dupont was seen at a late hour coming from Berlin Mills. We wonder what is budding out so early in the spring.

Ed Hynes our noble blacksmith, is thinking of making a pair of shears, as he has to trim the boys frequently during noon hour.

Hank O'Connell has been a very successful manager of our hockey team. On that trip to Pittsburg he succeeded in getting the boys through Montreal without stopping.

Ladies, take notice. John Merrigan has bought a new Chevrolet "Coop."

The pickerel will soon get a feed. Carl Johnson has found the secret of pocking worms by lantern's light.

Hedley Parker didn't attend the last pie social at Berlin Mills hall. We wonder why?

John Laffin is very disappointed. His income from his investment in a bakery is decreasing.

James Gothreau is back with us as

watchman. The smell of frying doughnuts did not agree with him.

Dave Marcotte must be expecting to take a dive into the sea of matrimony pretty soon. He is making extensive repairs on his house.

Employment bureaus are requiring more river drivers this spring than usual, as Joe Paradis' chopping is coming down this year.

State of New York will have a supplier of potatoes this year. Hugh Meehan is already cutting seeds.

Geo. Reed hasn't been seen going to Lancaster of late. The school teachers have been changed.

Chummy Vezina will soon have to give his pipe a bath. The boys claim that she leaks chlorine.

Peter McKenzie has advertised his motorcycle for sale. Canaan will lose a frequent visitor.

Cecil Manton is thinking of spending his vacation in Milton, N. H., this summer, with his old friend, Frank Valliere.

John Reid is looking forward for a prosperous season this spring. He is already taking orders for sun-flowers.

Oscar Davidson has traded his Ford sedan, and with the profits of his Boston Posts he is buying a Hudson coach.

A local taxi-driver has sued Fatty Oleson for damages. Fatty hired the car and during the ride home, all the springs were broken, besides having two blow-outs.

The Chemical mill sextette enjoyed their annual meeting on a recent Saturday evening and by all reports a splendid time was had. Mr. Derochers gave many selections on the piano. T. Gillespie sang and the chorus was Cadorette, Olsen, Rivard, etc.

Some of the boys are eating quite a lot of pies, doughnuts, etc. On inquiring the reason, we found that the boys were trying to put John Laffin's bakery on a paying basis.

BROWN COMPANY RELIEF ASSOCIATION

Orders drawn on the treasurer for the month of March were as follows:

the month of March were as follo	ws:
Alphonse Dumont	\$ 26.00
Gus Anderson	
Geo. Gagne	24.00
Francis C. Slattery	132.80
Jos. Laveille	
Cleophas Morin	6.00
Charles E. Baker	15.25
Sylvian Morneau	8.00
Jos. Tellier	81.00
Silvio Turcotte	68.40
Emile King	40.50
Albert Lawrence	27.08
Herbert Schnare	108.93
Jas. Lanterio	32.67
Robert Hamilton	12.00
Herbert Deal	99.40
John Nicholson	
Comilla Dalahanta	66.80
Camilla Delphonts	48.00
Geo. Boisselle	158.32
Karson Moen	146.00
W. E. Sawyer	17.73
Sam Teti	36.00
Lena Roberge	36.00
Herbert Reed	30.80
Albert Biron	43.75
Everette Christiansen	33.32
Andrew Perry	48.60
Joseph Doyer	39.60
Omer Therrian	37.50
Wm. Lemere	41.10
Archie Cormier	37.50
Wm. Mason	36.00
Thos. Collins	37.50
Jos. L'Heureux	36.00
Wm. Mooney	65.00
Aime Gigure	35.40
Arthur Mulhearn	25.30
Wm. Lemeux	57.31
Theodore Pinette	
Vinzenzo Alonzo	36.00
John Napert	92.40
Alfred Damers	12.00
J. N. Gilbert	
Class Novik	116.50
Chas. Nault	116.50
Wm. Williams	36.00
Nelson Cowette	48.00
Emely Coulombe	100.00
Nelson Ayotte	37.27
Albert Boucher	31.25
Angus Arsenault	44.00
Jas. Brooks	82.00
Adelard Gagne	13.70
and the second of the second o	
Total\$2	,514.58



SULPHITE MILL GAS



Burgess Band Concert

The Burgess Military Band presented its annual concert on the evening of March 25th. This was given to the Sulphite Mill employees, who filled the Y. M. C. A. gymnasium, every seat being occupied. Even standing room was at a premium upstairs and down.

After working hard and faithfully, practicing at the Y at least once each week throughout the year, the members of this band, so ably led by George Stevens, well deserved the support given them at this concert.

As will be seen by the program, the numbers given cover a wide range, fitting the size and make-up of the band perfectly and making a wellbalanced evening's entertainment.

the position that they hold in the band.
George Stevens Band Master
Adelard Coulon E Flat Clarinet
Felix Pesani1st Clarinet
Omer Laing 2nd Clarinet
Roland Rousseau 3rd Clarinet
Lucien Gagnon3rd Clarinet
G. H. Fowler Flute
P. E. Grenier Piccolo
John Frechette Solo Trumpet
Rene Gagnon1st and Solo Trumpet
John E. Lavoie1st Trumpet
Adelard Parent 2nd Trumpet
Leon Seguin1st Trombone
William Hallet 1st Trombone
Henry Gilbert 2nd Trombone
Frank Morel 3rd Trombone
Joseph Basil Baritone
Herman Reichel1st Alto

honor, experience, and kicks. Volunteer reporters will please hand in their stuff to any of the directors. A few contributions will qualify you for a position as a regular reporter.

BURGESS BAND NOTES

The Burgess Band will give a concert at City Hall sometime this month. The date will be posted on the bulletin board in the time office.

Free tickets may be obtained from timekeepers and band men. Get your tickets early and do not miss this concert as a very good program is being prepared of both instrumental and vocal talent by Mr. Stevens, band master. Once more we wish to advise you to get your tickets early.

BURGESS SLUSH

Bergezz Mill, Wensday Afternune.

Deerist Neff Nuf

Knot noing two eny digree of sertaynetea eggsackly howe many mynitz itt wil bee beefour I shell sea yew I em takeing thiz tyme two tel you howe mutch I mis u wen yore knot around. Yore verry presentz thrils mee frum thee typ ov mi i lashiz two the typ ov mi noze en u kno howe longe thet iz sew u ken emagen whut a long thril I git. I luv every hare on yore hed butt nott evry won on thee sleve ov yore cote. Minitz seam ours wen wier apart an wen I eate, fude tastes lyke ashiz, sew swetchart ime onlee wating tyl I ken gayze intwo yore butifull ize, thoz depe gray wells ov deepist misteari.

Dearhart howe ken I weight ontyl I ken clazp yew inn mye armz and whizpur swete nuthingz intew yore shell lyke ear, O molazziz howe swete u r knowun realyziz, ile styck tew yew tyl deth dew us part. Untyl then, swete surplus, thynk onley ov me.

Yorz till Niagarah falz

NEF NEH

BURGESS BAND PROGRAM

March	Viribus Unitis	Bach
Intermezzo	Nights in the Woods	De Bozi
Selection	The Rise of Rosie O'Reilly	Cohan
Vocal	The Pin-Boys' Quartet	
Waltz	A Kiss in the Dark	Herbert
Fox Trot	Long Lost Mamma	Woods
Ballad	Sunrise and You	Penn
Selection	Old Favorites	Seredy
Novelty Song	Whose Izzy Is He, Is He Yours or Mine?	
	Jack Cavagnaro	
Fox Trot (a)	I'm Going Back to My Mammy	Klickmann
(b) A	A Smile Will Go a Long, Long Way	Davis & Akst
Concert Waltz	The Skaters	Waldteufel
March	Wasatch	Christianson

The Star Spangled Banner

Jack Cavagnaro, the irresistible, had us all laughing and humming his song before he was half way through. The quartet composed of J. S. Gibb, Wm. Oleson, Arold Brown and H. V. Johnson with Wallace Van Arsdel at the piano, gave two numbers, "Over the Ocean Blue," and "A Little Close Harmony," which was close enough so that it was well received.

To the members of the band we want to say that your efforts are appreciated and we are looking forward to your next appearance.

The names of the men who took part in the concert are given below with

Amie Lavoie	2nd Alto
James Evans E Flat Alto	Saxaphone
Tony Alati B Flat Tenor	Saxaphone
Fred Moreau	Bass Horn
Arthur Seguin Snare I	
and 2	Xylophones
Frank Seguin	Bass Drum

WANTED:-A live reporter to report news for the Bulletin Sulphite Mill Gas. We have had quite a large number hold down this job from time to time. Most of them have started out right bravely but they have in many cases failed to cross the finish The emoluments are mostly

BURGESS RELIEF ASSOCIATION NOTES

Since the last issue of the Bulletin, Robert Riva has left the hospital and his return to the mill is expected soon.

Homer Williams the popular property foreman of the sulphite mill, is confined to his bed with diabetes.

Peter Lavigne, of the wood room, was

injured on March 14th. He struck the top of his head on an iron rod and concussion of the brain resulted.

Amedie Labonte of the machine room was injured quite severely on March 8th, when a bale of stock fell on him causing hernia, an operation for same being necessary. He is reported to be much improved.

All of these men have been in the hospital at one time or another during the past month and it is hoped that their friends here in the mill, especially those in their own crew, have visited them at the hospital and given them a word of cheer. Time goes slowly for them and visitors are mighty welcome. So let us call at the first opportunity.

MIDSUMMER MILITIA

The general complaint is about the heat.

The major movement is toward beaches, lakes and mountains.

Captains of industry are enjoying furloughs.

The corporal aim is cool comfort. Private picnics are being staged.

And summer resort prices are still shooting up.

BURGESS RELIEF ASSOCIATION

The indemnities for accidents and sickness for the month of March are as follows:

TOHOWS:
Mrs. Laura Martin\$ 73.50
Elphage Chaurest 84.60
Jos. Croteau (accident Felix
Croteau acct.)
Jos. Ramsey 51.60
Jos. A. Croteau 50.00
Omer Boucher 60.00
Patrick Peters 48.00
Robert Riva 122.50
Fred Dion
Charlie Decoteau
Wilfred Bailby74.00
Andre Doiron 16.00
Jean Albert
John Duggan
Peter Belanger 84.00
Jos. Tracey
Wm. Sharp 58.80
Charles Rainville
Albert Vallis
Alf. Peltier 12.00
Forrest Stewart
Edmond Schambris
Ernest Nolet
Mrs. Vincenzo Baldesarra 48.00
Jos. Beaudet 83.00
Total

BROWN CORPORATION

LA TUQUE

After a very interesting season in hockey, La Tuque annexed the championship of the St. Maurice Valley Hockey League. The three teams composing the league, Grand Mere, Shawinigan Falls and La Tuque, were all very evenly matched. The games played were close and interesting, and productive of good, clean hockey. Our local boys were unfortunate in losing a couple of home games early in the season, and from then on were forced to fight an up-hill battle. This they did by coming through with enough wins away from home to keep them on top. The regular schedule left Shawinigan Falls and La Tuque on even terms, necessitating home and home games to decide the winners. The La Tuque players showed their gameness by administering a 3-0 defeat to their opponents in Shawinigan, and repeating the dose again in La Tuque, thereby winning the round 6-0 and the championship.

Standing:-

Shawinigan 5 5 1 11 28 30 Grand Mere 2 6 1 9 26 44

Grand Mere 2 6 1 9 26 44	
Leading Scorers	
R. Lajoie, La Tuque	15
W. Charland, La Tuque	9
E. Chamillard, Shawinigan	9
P. Mongrain, La Tuque	7
P. Lamirande, Shawinigan	7
T. Richardson, Grand Mere	6
L. Houde, Grand Mere	6
C. Gowsell, La Tuque	5
M. Gill, Shawinigan	5
J. Goodacre, Grand Mere	
L. Bergeron, Shawinigan	4
A. Barrette, Grand Mere	4
R. Genois, La Tuque	2
T. Wolfe, La Tuque	2
F. Villemure, Grand Mere	2
One Point Each	

A. Fortin, Shawinigan; P. Hayes, Grand Mere; R. Cooper, Grand Mere; M. Neville, Grand Mere; J. Mills, Shawinigan; R. Grenier, Shawinigan; E. Gowsell, La Tuque; O. Dicaire, La

The Royals won the City League championship in easy fashion, not losing a game. However, in some games they were forced to the limit to win. The real tussle of the league was the



HOCKEY TEAM

Left to Right, Standing:—G. F. Braithwaite (Mgr., Sec.-Treas.); G. W. Arnott (Ex.); W. E. Creighton (Trainer); O. Dicaire (Def.); T. J. Wolfe (Sub.); P. Mongrain (Def.); F. B. Bjornlund (Ex.); S. Brown (Pres.); E. Belleau (Ex.).

Sitting:—R. Lajoie (L. W.); C. Gowsell (Sub.); L. Gagnon (Goal); J. Banville (Sub.); R. Genois (Sub.); W. Charland (C.).

Royal-Beaver game which resulted in a 0-0 score after 30 minutes of overtime play. This was a real humdinger with excitement every second. This was about the only game in which the Beavers turned out at full strength, or otherwise we might have seen more games of this kind. The Canadiens, last year's champions, were unfortunate in losing practically all of their old players, and had to resort to new and inexperienced blood, but Joe says they will be heard from later.

Standing:-

	Won	Lost	Tied	To play
Royals	6	0	1	1
Beavers	2	3	1	2
Canadiens	1	6	0	-1

In the Junior City League, the Loyolas were victors over the Victorias and Nationals, after a hard-fought schedule, and thus became first holders of the Community Club Trophy.

All told we had a very good season in hockey, both in quantity and quality, and the Association is glad to report that they will show a fair surplus financially. But we still feel in our climate the necessity of a closed-in rink.

The trustees of the Hockey Association intend holding a smoker for the players and officials of both the senior team and the City League teams at the Community Club on April 24th, when the trophies will be presented to the winning clubs, and the individual souvenirs to the players of these teams in appreciation of their efforts.

The players on the senior team will each be presented with a fine coat sweater in the club's colors, while the Royals (City League winners) will each receive a fine leather belt with sterling silver buckle on which is engraved the club's name, the year, and their own initials.

Senior Line-Up

GoalL. Gagnon
DefenceP. Mongrain, O. Dicaire
L. WingR. Lajoie
CenterW. Charland
R. Wing
Spares:-T. Wolfe, J. Banville, E.
Gowsell, R. Genois.

Royal Line-Up

Roy	al Line-	Jp		
Goal		R.	Roche	tte
Defence	L. Dufou:	r, H.	Boucha	ard
L. Wing				
Center		W.	Charla	ind
R. Wing]	. Banv	ille
Spares:—U.	Rivard,	S.	Lajoie,	J.
Guorin, E. Rivar	d, C. Ba	nville	e.	

The presentation of the Men's Basketball Championship league medals to the "Tekres" marked the close of the first season of basketball in La Tuque. Basketball, though in its infancy here, certainly made great progress during the past two seasons. The attendance of spectators at the final games in itself indicated the interest in this particular sport.

The "Tekres," the champions of the

League, composed entirely of office men, easily carried the honors, only losing one game during the season.

Creditable mention must also be made of our Young Ladies' League, the "Roughnecks" winning the finals in that section.



BASKET BALL TEAM
Left to Right—1st Row—C. Johnson, Ref.; M. Creighton, J. A. Jones, R. Decroix, J. A. Barraclough, Club Manager.
2nd Row—W. Creighton, E. A. White, H. R. Annable, E. Gowsell, Capt.
Sitting—A. Walker, N. Barraclough.

Heating and Ventilating the Machine Room

By Harry G. Clark

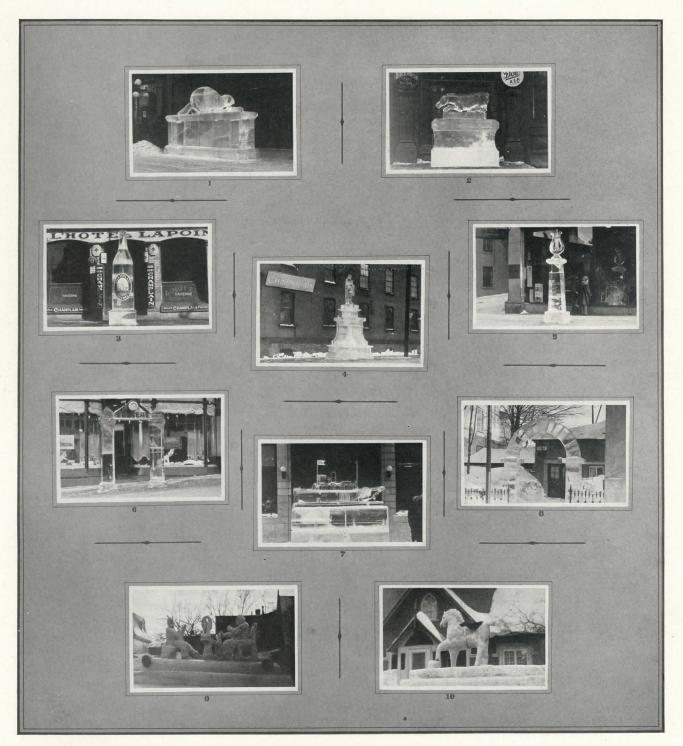
R. HARRY G. CLARK, resident engineer for the Glen Mill of the International Paper Co., addressed the Philotechnical Society on the subject of "Heating and Ventilating the Machine Room," Wednesday evening, April 2. Mr. Clark wove into the scientific data involved a pleasing recital of some of the varied experiences he has had in his many years of mill design and plant reconstruction.

Mr. Clark characterized the old method of heating a machine room as a hit or miss affair. A few pipe coils were perhaps installed at the ends of the room and the heat from the machine was expected to do the rest. If any condensation under the roof, with consequent drip, developed, more coils were put in, or other measures were taken by which to "get by" without attention to the costs of maintenance and operation. The speaker had seen roofs where coils were hung in every way but had never known of a case where they were used if the cost of steam for operation was realized.

The next method of heating adopted

was the fan system. This consists of a fan which either blows or draws air thru a system of heating coils and distributes the heated air where desired by means of ducts. It is not very easy to get any comparative figures which really show the difference in cost and efficiency between the coil system and the fan system. It is easy to see, however, that the coils deliver heat at certain points only and usually these points are on the outside walls. It is conceded that the radiation of heat thru a wall is directly proportional to the difference in temperature on the other side. Tests have shown temperature difference as high as 100 degrees between the coils and the wall while the average temperature of the room was only 70 degrees or less. Under these circumstances the radiation thru the wall would be much greater than if the temperature at the wall were only the average of the rest of the room. With the fan system, it is possible to so deliver the air that these points of high temperature at the wall may be avoided.

(Continued on Page 16)



QUEBEC WINTER CARNIVAL

The pictures on this mount were taken during the Quebec Winter Carnival. These ice monuments were built very nearly the same as a stone monument would be constructed. The ice was cut in blocks and hauled to the place where wanted.

- 1. One of the largest monuments in front of Paquet's Department Store on St. Joseph Street.
- 2. In front of Chien D'Or Tavern on Dufort Street.
- 3. Representation of a bottle of ale placed in front of L'Hotel Lapointe.
- 4. Miniture monument of Champlain placed near the Champlain Brewery on Crown Street and copied from the original which stands at the end of Dufferin Terrace near Chateau Frontenac.
- 5. Monument in front of Lindsay's Music Store on St. John Street.
- Monument in front of Siefert's Jewelry Store on Fabrique Street.
 A good representation of one of the harbor tugs placed before St. Roch's Hotel on St. Joseph Street.
- 8. Entrance to Garrison Club, St. Louis Street.
- Snow Monument on Sherbrooke Street. Another Snow Monument on Sherbrooke Street.

When used in a machine room the fan system has another function besides that of furnishing heat. It is designed to furnish a means to absorb the moisture rising from the driers and to carry it out of the room so as to prevent condensation on the walls, roof trusses and other parts of the room with the consequent drip which damages the paper and machine felts, rots out the roof plank and in the case of a large high speed modern machine, becomes a very serious hindrance to high production.

The first fan system with which Mr. Clark came in contact was figured on a basis of a certain air change. The cubical contents of the machine room were computed and sufficient air was furnished to make a complete change of the atmosphere in the machine room every five minutes. In the beater rooms the change was every ten or fifteen minutes and in finishing rooms every twenty minutes. In these installations no attention was paid to the amount of paper produced in the room. The whole system was based on the experience at other mills or the judgment of the engineer and pocket book of the owner. Under this system a small machine in a large room got more ventilation than a large machine in a small room.

It was not realized that the amount of air required could be accurately determined. In some cases probably double the air needed was heated and furnished to the room. As an example for illustration purposes, calculations were made for a machine room in which 50 tons of paper are manufactured every 24 hours. Allowing that the stock arrives at the driers with 70 per cent, of water and leaves the driers with 7 per cent. of moisture, it would follow that approximately 21/4 lbs. of water must be evaporated per lb. of paper. That would be 225,470 lbs. of water per day for the 50 tons of production. This is equal to 156 lbs. or 1,092,000 grains per minute. This amount of moisture, it was found from humidity charts, can be absorbed by 56,000 cu. ft. of dry air per minute when admitted to the room at 100 degrees Fahrenheit.

The definition of the phrase "dry air" must be got clearly in mind. Heated air is frequently spoken of as dry or dried air. This implies that moisture has been removed from it, when as a matter of fact no moisture whatever has been removed, but the temperature of the air has been raised so that it is capable of absorbing more

moisture. For instance, a cubic foot of air at a temperature of 100 degrees F. and 100 per cent. saturated, would contain 20 grains of water. Now if the temperature of this cubic foot of air were raised to 110 degrees F., no moisture would have been removed from the air, but its moisture absorbing capacity would have been raised up to a total of 26 grains. If, on the other hand, the temperature of the air was reduced to 90 degrees F., its moisture capacity would drop to 15 grains, and the other 5 grains would immediately condense, so that the air is dried that much.

The actual amount of air to be supplied to this machine room will be more than 56,000 cu. ft. or it must be heated to more than 100 degrees F., as the entering air will carry in itself a certain amount of moisture, which brings the available absorbing capacity per cu. ft. below 20 grains at 100 degrees F. Other factors modifying this volume and temperature of air are the moisture arising from the wet end, the maximum paper production to be made in the room, and probable changes in the weight of the sheet of paper. A drop to 25 tons paper production, because of a thinner sheet on the machine, would permit the use of only half as much air as is required for a 50 ton production.

A recent development of the machine room heating problem lies in the recovery of the heat leaving the room in the warm, moisture-laden air in the fan system. In the illustration given for the 50-ton mill, 156 lbs. of moisture per minute were changed from water to vapor. Approximately 1,000 B. T. U. are required to vaporize 1 lb. of water. Consequently, 156,000 B. T. U. per minute are leaving the room in the exit air. These heat units represent several boiler horse power. As Mr. Clarke expressed it, "There's a horse there, but can you harness him?"

One method of recovering some of this heat is to draw the moisture-laden air thru jets of water which cools the air and condenses a considerable quantity of the moisture, thereby recovering the heat of evaporation which raises the temperature of the water. In such a method, the water thus heated is used to supply beaters or for other purposes where a warm water is required. One mill was able to raise the temperature of all the beater water used from 40 degrees to 104 degrees by this method.

Another method is to install an economizer so arranged that the

moisture-laden air is drawn out thru one horizontal set of channels and fresh air is drawn in thru adjacent vertical channels. Cold incoming air shills the outgoing air, absorbing the heat evaporation and a small quantity of sensible heat from the air itself. Suppose such an economizer were installed in the 50-ton machine room which has been used as an illustration. Assuming that the outside temperature is 32 degrees it would be necessary to raise the temperature of the incoming air 68 degrees to get it up to the 100 temperature necessary to absorb the required amount of moisture. This means that 56,000 cu. ft. of air are to be heated to a temperature 68 degrees higher. Inasmuch as 1 B. T. U. will raise the temperature of 55 cu. ft. of air 1 degree, it follows that 1,200 B. T. U. per minute will be required to raise the temperature of the 56,000 cu. ft. 1 degree, or 81,600 B. T. U. will be needed to raise this volume of air 68 degrees F.

If the temperature of the outgoing air was 100 degrees F. and it was fully saturated, but was reduced to 83 degrees F. in the economizer, the temperature would be dropped 17 degrees and 8 grains of water would be condensed from each cu. ft. of air. Assuming that the quantity of outgoing air equals the amount coming in, or 56,000 cu. ft. per minute, there would be condensed 448,000 grains, or 64 lbs. water per minute. 62,080 B. T. U. heat of evaporation per minute would be given off. Moreover, the outgoing air would be robbed of 17 degrees of sensible heat. This amounts to 20,000 B. T. U. per minute for 56,000 cu. ft. air. This added to the 62,080 B. T. U. heat of evaporation gives a total of 82,080 B. T. U., or more than enough to heat the incoming air to the required temperature. The heat supplied to the vapor laden air going out thru the economizer is derived, of course, from the sheet drying on the paper machine.

This economizer system is in operation in certain mills and is reported to pay for itself in as short a period as three years. Its efficiency applies more particularly to machines using live steam and not exhaust system for drying the sheet.

Try O I Auto Polish made by Fred Pilgrim of the Research Department. It is dust-proof and unaffected by water. It preserves the enamel and improves with use. Sample can, 15 cents. Large can, 45 cents.

BK00.1630