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Bangor Hydro Electric News: January 1940: Volume 10, No.1, Engineering Department Issue

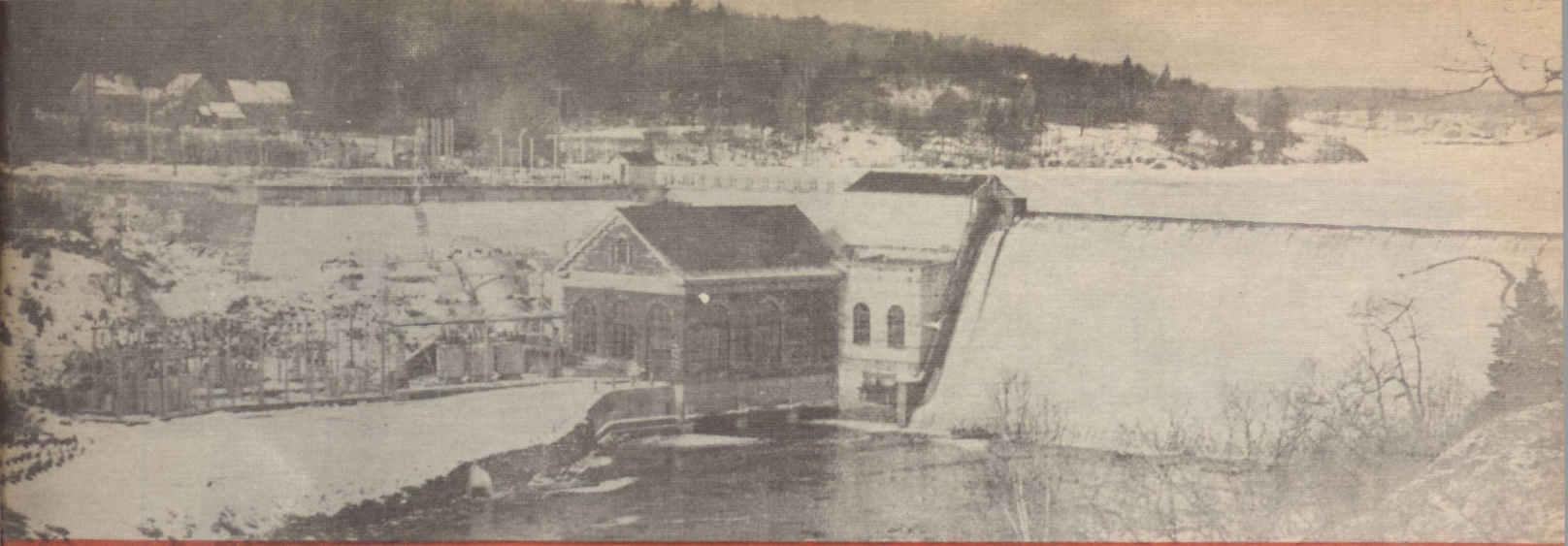
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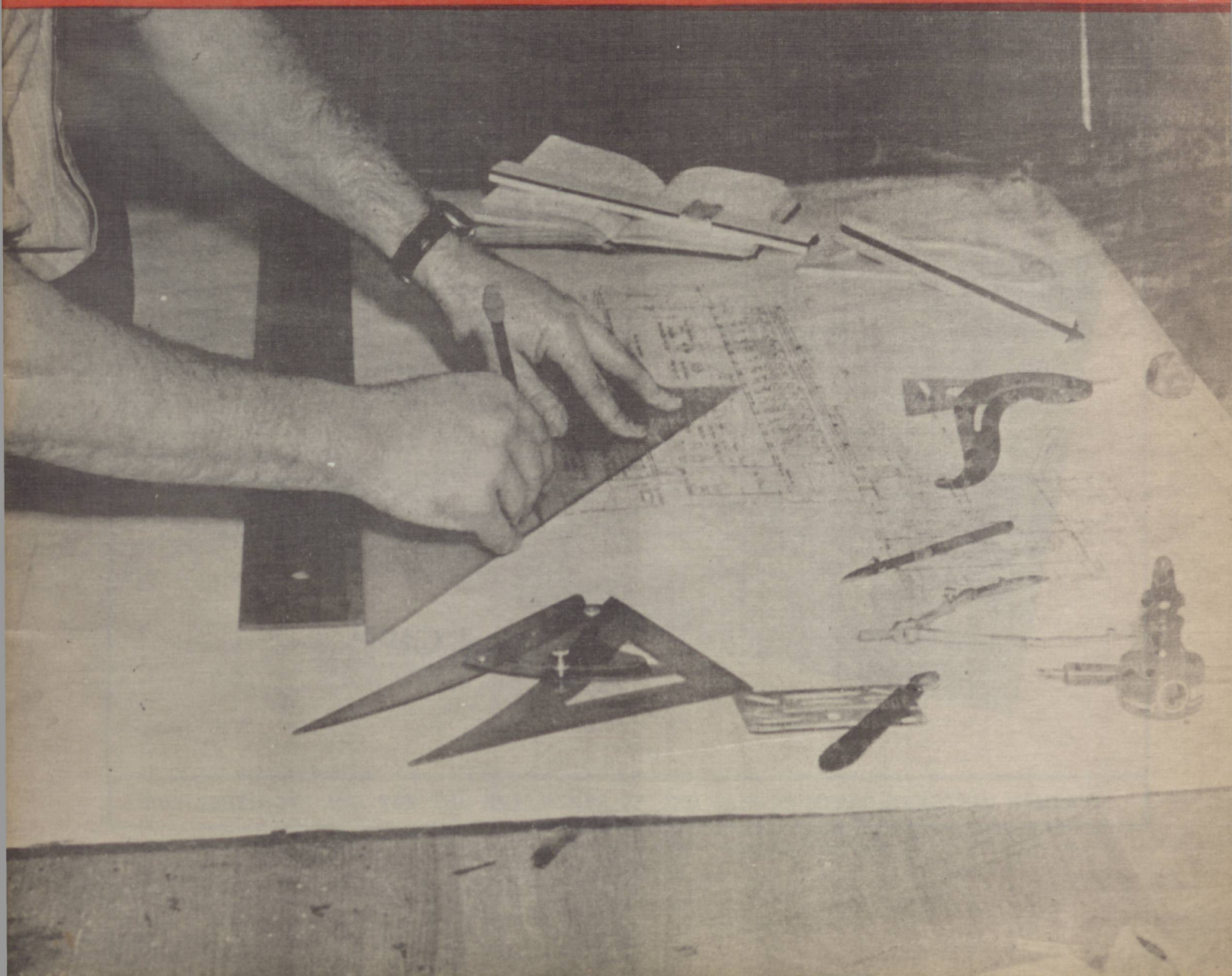
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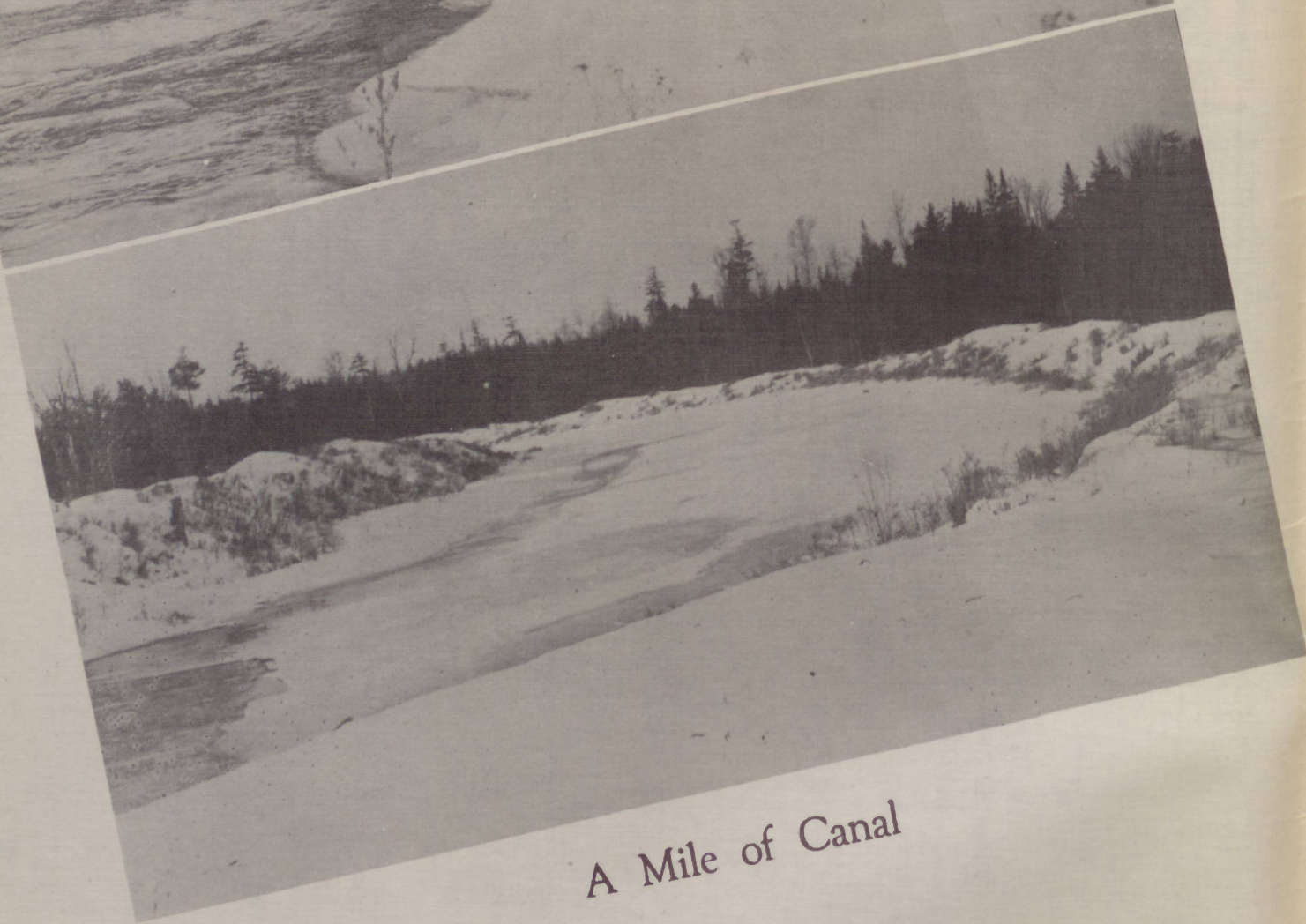
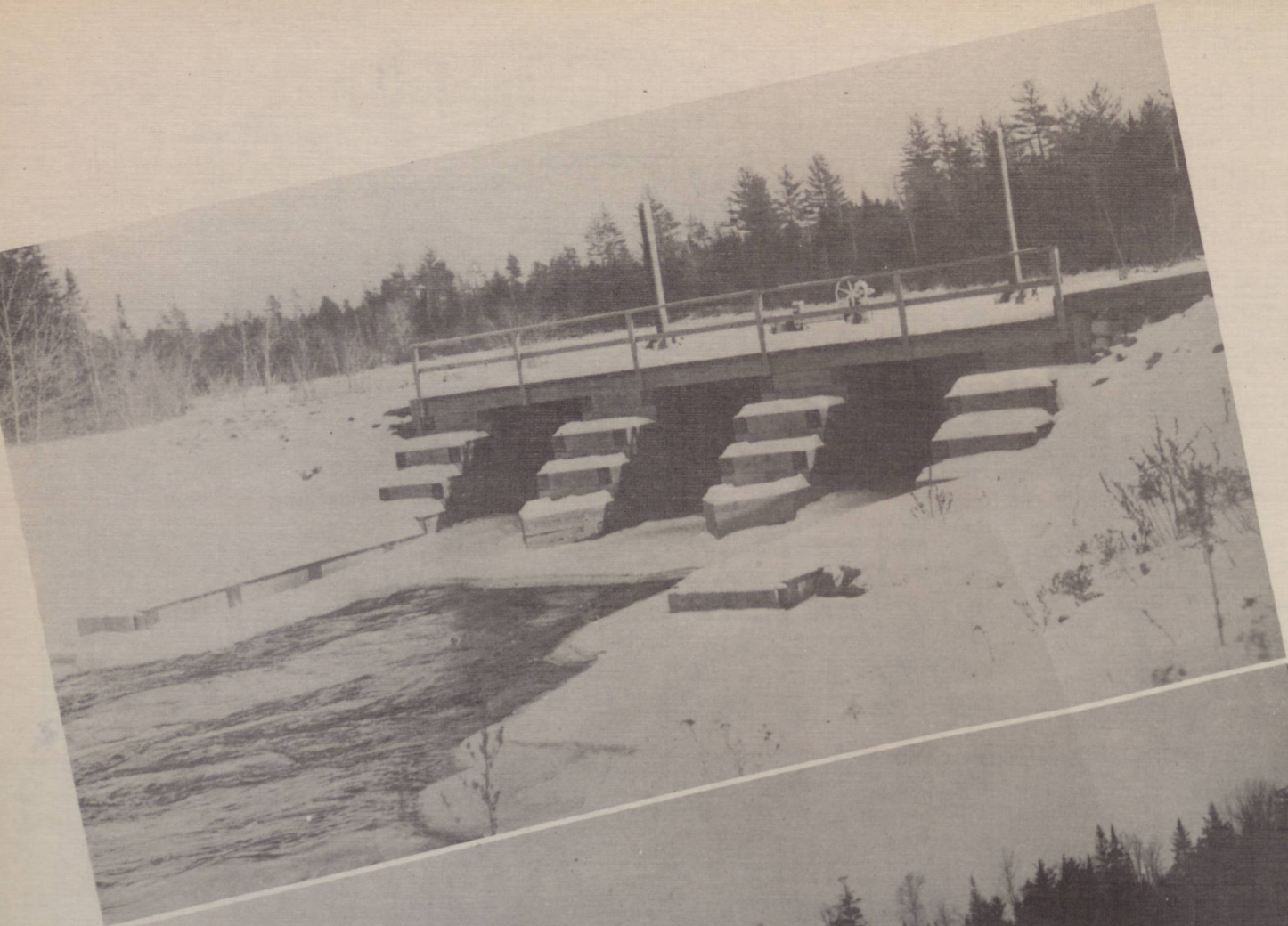


BANGOR HYDRO-ELECTRIC NEWS

January, 1940

Volume X Number 1
ENGINEERING DEPT. ISSUE



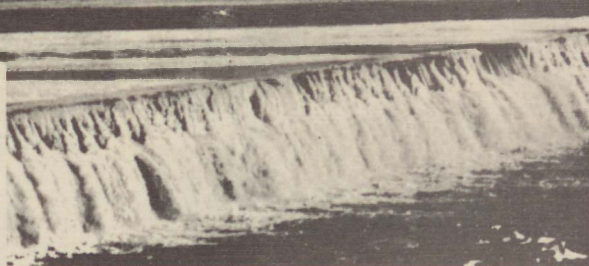


A Mile of Canal

HYDRO NEWS

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Major Engineering Activities of the Hydro for 1938 - 1939



by
Paul F. Kruse
Chief Engineer

The additions and improvements to our generating and transmission systems during the past two or three years have been intensely interesting to those of us in the Engineering Department. We hope that a few of the facts and highlights concerning them, as presented herein, will be of interest to the many readers of the NEWS. Before discussion these developments, however, a few remarks on the general characteristics of our system may be of interest.

The Bangor Hydro-Electric Company is unique among the utilities of the United States in the fact that our sources of electricity are entirely water power. We have 12 generating stations, having a combined capacity, under normal water and head conditions, of approximately 33,500 kilowatts. Electrically speaking, we are about one one-thousandth part of the total United States. Our trends of growth over the past ten years have paralleled those of the United States in general and our average use of electricity by domestic and small power customers has been practically the same as the general average of the United States. During the

depression years of 1930 through 1934, our growth in the use of electricity was practically at a standstill, but in 1934 and 1935 resumed its upward trend. In 1936 it became apparent that with in a short time it would be necessary to expand our generating facilities.

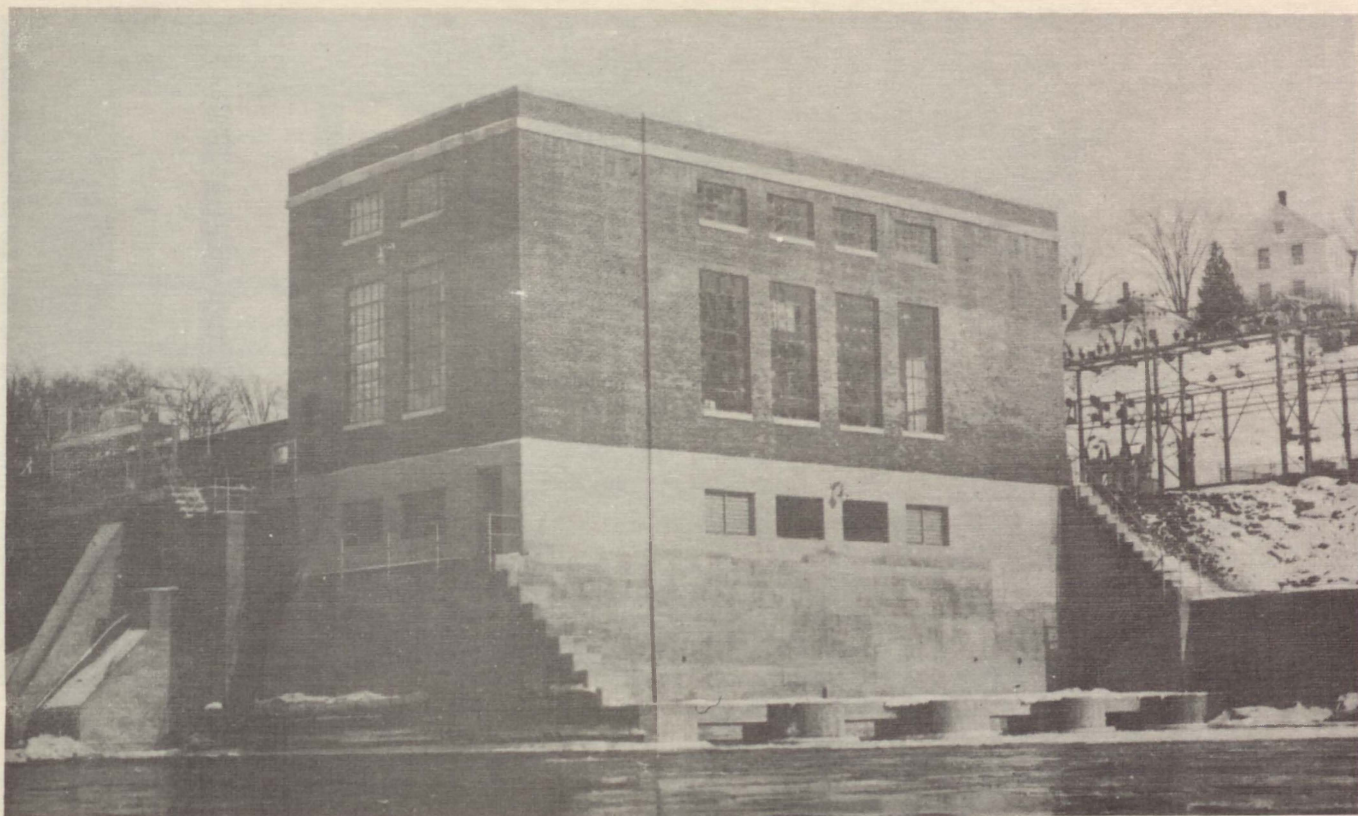
Howland, Fall of 1937

The first step in this recent program of expansion took place in the fall of 1937 at Howland, Maine. The generating plant at Howland is situated on the Piscataquis River at the point where it flows into the Penobscot. This plant, with a total installed capacity of 1,875 kilowatts, was erratic in its output and, therefore, non-dependable, due to the extremes of flow in the Piscataquis River. Our Stanford Station at the West Enfield dam, located on the Penobscot River about one-half mile upstream from the confluence of the two rivers, was developed with generating capacity equivalent only to about the low flow of the Penobscot, which is, in part, regulated by storage of the Great Northern Paper Company on the West Branch

of the river. We, therefore, had a situation in which there was a serious deficiency of flow in the Piscataquis during the low water periods, necessitating, at times, a complete shutdown of the Howland Station and, on the other hand, excess waters available nearly 100% of the time in the Penobscot River within a mile of the Howland Station.

A Mile of Canal

A small dike, known as the "Run around Dam" had been constructed in earlier years at the head of a small brook known as Mile Brook. When the West Enfield dam was built, this brook formed a connecting water-course between the two rivers above the West Enfield and Howland dams. This dike was reconstructed into a dam with a gate structure, and a canal about one mile long and 100 feet wide was excavated between this dam and the Piscataquis River along the course of Mile Brook. This work was performed jointly by Wyman and Simpson, Inc. of Augusta, Maine, and our own forces. The gate structure and canal were completed in December, 1937, and since that time have permitted



(Illustration No. 1)

Veazie

the diversion of excess water up to 800 cu. ft. per second (one-half the water capacity of the Howland Plant) from the Penobscot into the Piscataquis for use in generation at the Howland Plant. After leaving the Howland Plant, the water returns to the Penobscot. The effect of this diversion has been the equivalent of a large storage reservoir in making possible the operation of a large part of the generating capacity at Howland at all times. Inside front cover pictures show new Runaround Dam and gate structure at head of diversion canal.

Additional Facilities

During 1938, additional facilities were provided, consisting of a new 2,500 KW plant at Veazie known as Station "B" and two new modern vertical units at Ellsworth. The new Veazie Plant is shown in Photographs 1, 2, 3 and 4, and the two new units at Ellsworth are shown in Photograph 5.

Before the Veazie-Ellsworth combination for increased generating capacity was decided upon, investigations with comparative estimates of cost were made for several undeveloped water power sites and of several types of

fuel burning plants. These studies showed conclusively that expansion of existing plants at Veazie and Ellsworth, as the next step of development would provide the greatest economy consistent with our load growth.

New Station at Veazie

The new station at Veazie generates at a voltage of 6.9 KV and is directly connected to the 6.9 KV bus in the old station by underground cables. It is automatic in its operation to the extent that it can be directly controlled from the switchboard in the old station. Among its new features are ice and trash gates, electrically heated for ready operation in the winter time. The structure is fireproof throughout being constructed of concrete, brick, and steel.

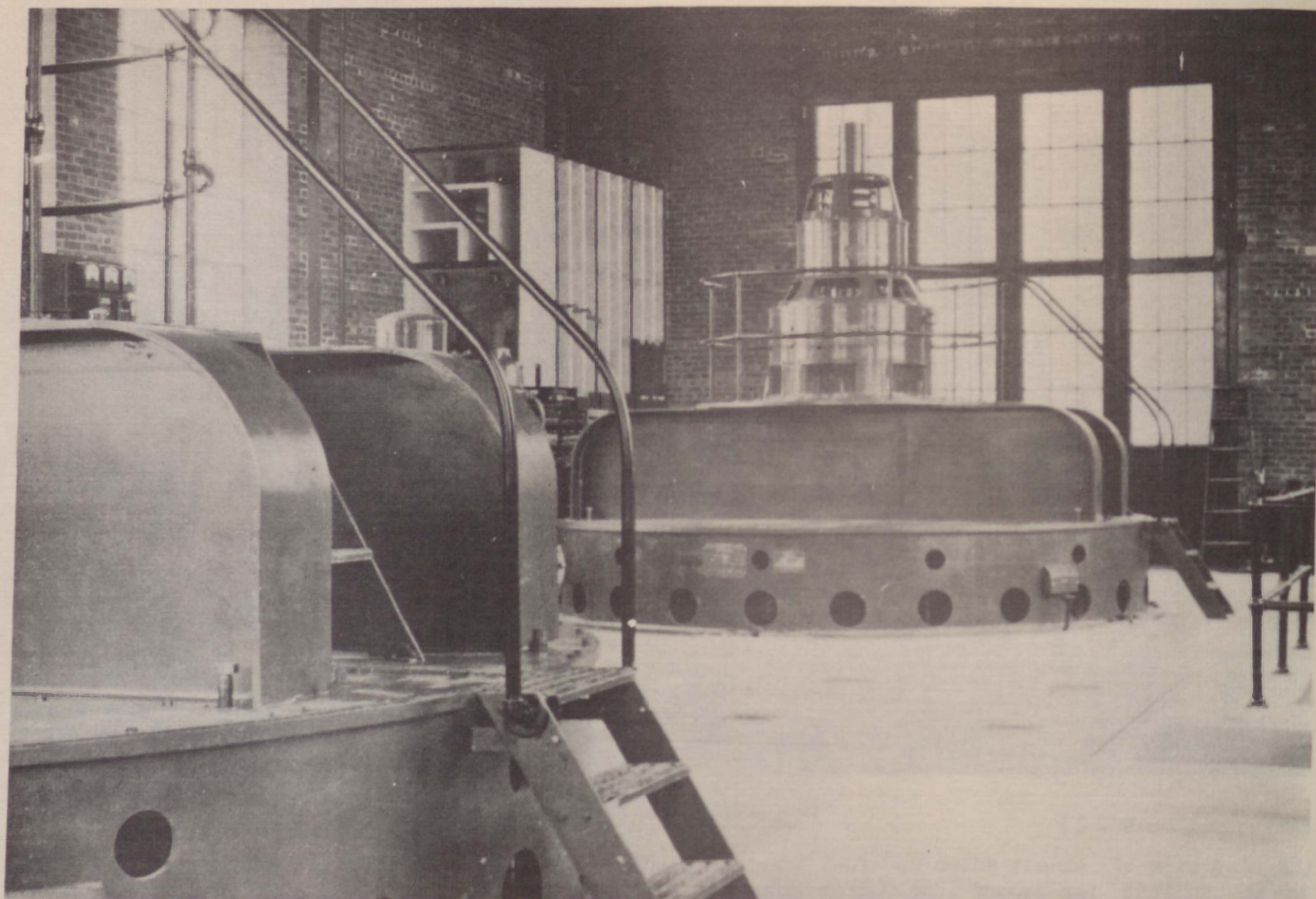
The construction work at Veazie was carried on jointly by Wyman and Simpson, Inc., and our own forces. A contract was awarded to the aforesaid contractor for furnishing construction plant, labor and superintendence, and certain materials for construction of the power house. Construction work was started on May 4, 1938. Unit #17 was put in op-

eration on February 15, 1939, and Unit #16 on February 25, 1939. The hydraulic turbine equipment was furnished by the S. Morgan Smith Company of York, Pa. The generators and switchgear were furnished by the General Electric Company.

New Units at Ellsworth

The new vertical units at Ellsworth replace two old horizontal units, one of which is shown in Photograph #6, which had been in service for over 30 years. Each of the new units has a maximum capacity of 2,250 kilowatts at 60 foot head, whereas one of the old units had a capacity of 1,000 kilowatts and the other 1,100 kilowatts. In addition to increasing the maximum output of the Ellsworth Station with all units running by over 2,000 kilowatts, the new units have provided a substantial increase of efficiency in the utilization of stored water from Graham Lake under all conditions of load. The massive substructure of the old units had to be entirely removed down to ledge rock and some additional rock excavation made to accommodate the new units.

This work, together with con-



(Illustration No. 2)

Veazie Power Plant

struction of the substructure for the new units, was performed by our own forces under the superintendence of Joe Fournier. Lets give Joe a big hand for conducting this work, under difficult conditions, without a major accident. The turbines and generators were erected under the supervision of erection superintendents of the manufacturers - the S. Morgan Smith Company and the General Electric Company, respectively. Construction work on the first of these new units was started on December 28, 1937. The first unit was placed in operation on August 3, 1938, and the second unit on December 20, 1938.

Blades Shift

Automatically

The new units at Ellsworth are particularly novel with respect to our other generating units in the fact that the water turbines in these units are of the Kaplan automatic adjustable blade type. The blades of the runners automatically shift to their most efficient point for all conditions of

load under the direct and automatic control of the turbine governors. For the benefit of those not familiar with this type of unit, the blades are moved mechanically by means of a mechanism inside the hub of the runner which is actuated by a vertically connecting piston and rod inside the turbine shaft. The piston operates under oil pressure controlled by the governor. This mechanism is truly remarkable when one realizes that this automatic control and movement of the runner blades takes place with the unit running at full operating speed, which is about one mile a minute at the outer edges of the runner blades.

29 Days and Nights

Another improvement made in 1938 was the reconstruction of the forebay floor at Veazie. This floor divides the forebay intake water above it from the tailrace discharge channels under neath. About one-third of this floor was of timber construction remaining from the early days

when the old Veazie Plant was operated as a mill. Much difficulty had been encountered for several years from periodic failure of this floor. It was decided in the fall of 1938, to replace all of the timber flooring with reinforced concrete. A cofferdam was constructed across the head of the forebay, shutting down the entire plant. Approximately 250 precast reinforced concrete slabs each 18" x 20" x 14'6" long and weighing nearly three tons each, were placed in the forebay floor and the entire floor area under the rack structure was concreted in place.

The cofferdam was started on October 11, 1938 and the work was completed and the Veazie Plant restored to operation on November 9, 1938, in the elapsed time of 29 days. The work was performed jointly by Wyman and Simpson, Inc and our own forces. At the peak, approximately 175 men, divided in to day and night shifts, were employed on this work. We were all somewhat relieved when this job was completed, since during progress of the work we were bumped

on both sides and the middle by heavy rains and a flood of over 25,000 cu. ft. per second in the river which rose nearly to the top of the cofferdam and backed up from the tailrace over the forebay floor. Photograph on Page 19 shows work in progress.

Carrier Current Switch Control

A further and novel improvement of 1938 was the installation of carrier current switch control of our transmission system on Mt. Desert Island. A description of this work is given elsewhere in this issue by Harold Coffin, our Electrical Engineer, who was responsible from an engineering standpoint insofar as our system is concerned, for pioneering this useful and valuable contribution to better service.

Reconstruction of Transmission Line

Coming to 1939, the major development was the reconstruction, with new and larger conductors,

of our transmission line between Ellsworth and Veazie. This work is described herein by Kenneth Cosseboom our Field Engineer, who directed this work through to a successful completion. Joel Kingsbury, Foreman of the crew, is highly commended for carrying through the work oftentimes under trying and hazardous operating conditions without a major accident. This is the more noteworthy since about one-half of the crew were young, inexperienced men, who were receiving their first major training and experience in the field of hard knocks

Graham Lake Improvement

Perhaps George Dow would think I had overlooked a "bet" if I did not mention the canvas hood recently installed on one of the gates at Graham Lake. Within this hood, two electric heaters are operated to keep the gate free of ice. This was somewhat of a compromise from more costly means of heating the gate but so

far, it seems to be accomplishing the desired results. At any rate I believe George will admit that it warms his heart to think that at least one of the gates at Graham Lake is now comfortably warm through these cold winter days.

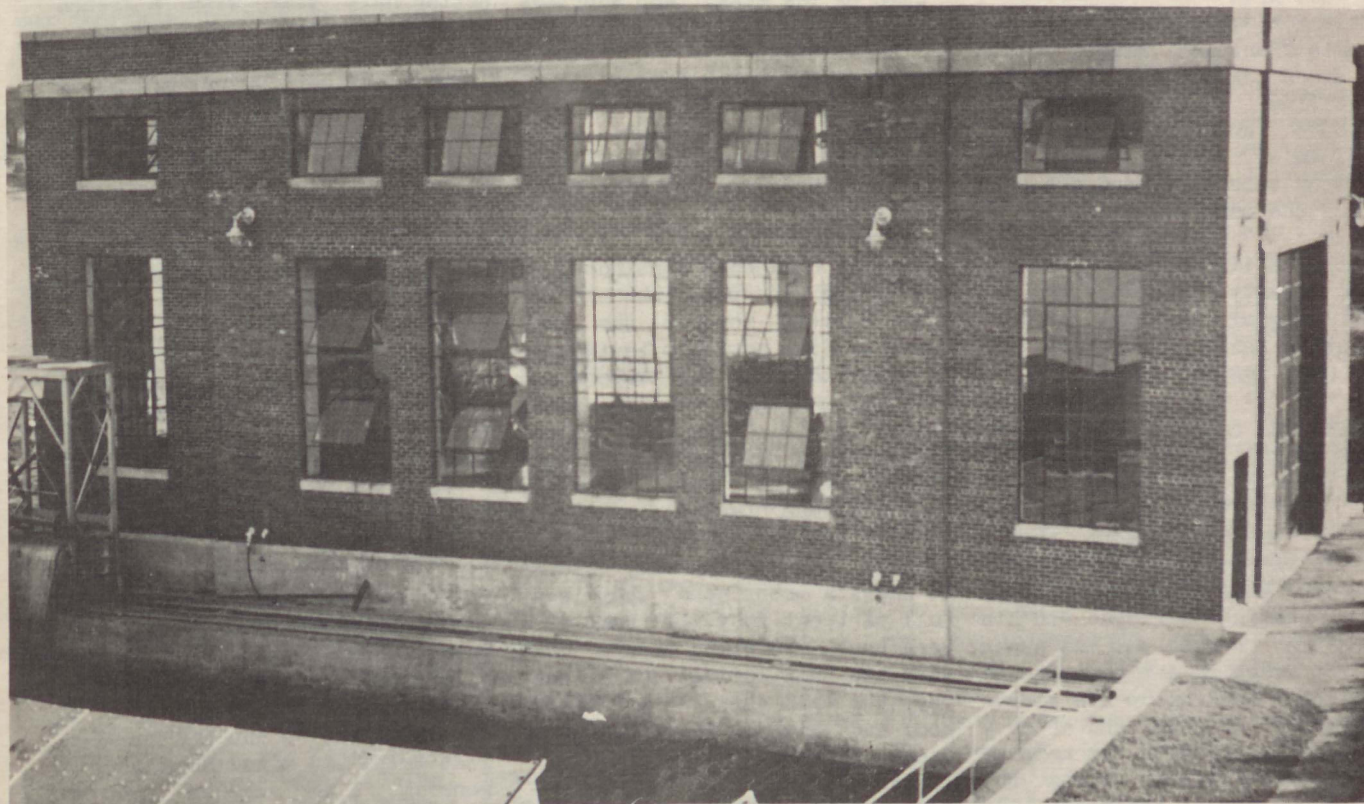
Elwood Jennison, our Hydraulic Engineer, under whose direction the detail structural designs were prepared, will discuss other points of interest on the work at Veazie and Ellsworth.

Ernest Brown, our Operating Engineer, will discuss some of the other recent activities of the department.

I could not close my humble contribution to this paper without expressing appreciation of the fine cooperation among all members of our organization, together with those of the General Electric Company, S. Morgan Smith Company, Wyman and Simpson and others who participated in these developments. The results obtained may be summed up in two words - "Team Work".

(Illustration No. 3)

Veazie



Trolleyville News

Trolleyville News

JANUARY NUMBER

Edited
by

News-Hawk

Trolleyville News

SERIES #1

EDITOR'S NOTE: We are asking our readers to take this page of news, gossip, etc. in the same spirit as, it is written, I. E. "ALL IN THE SPIRIT OF FUN".

Two of our sportsmen Ivory "Poacher" Bowden, and Archie "Whiz Bang" Currier, while fishing in Hammond Pond last week, entertained at tea, Game Warden H---- of Newport. Residents around the pond report no signs of said Warden since. Friends of Ivory are hinting that not even a tough game warden can drink his "TEA" and carry on.

Some joker put a tom cat in George Hennessey's mail box yesterday. When the box was opened, who got the biggest surprise Geo. you or the cat?

We learn that Arthur "One man" Grotton, has taken up fancy skating (on his hands). Better use your feet Art.

Tommie "Hansome" McLeod states that since taking over the Center Street line, he has every thing up there under control. Good work Tommie. We are always worried over this line, and are sure you are the man for the job.

Brother Giddings reports he has gained twenty pounds, or so, since changing his run. It sure is a grand feeling to sleep late these mornings, eh Gidd?

LOST: One front tooth by Stan "Big Boy" Phillips. Was it pushed in or pulled out Stan?

One of the boys report that a terrific battle took place on the Colebrook Road recently. "Pop" Godscoe, hearing a rumpus in his pigeon pen, rushed out and saw a huge rat dragging a pigeon around the floor. Rolling up his sleeve Pop grabbed a club and after a terrible fight, with the help of the pigeon, finally killed the rat. "Pop" nailed the rat's hide to the pen door as a warning to the others.

WARNING: George "Sunny" Chapman. Do be more careful on those

icy hills and slippery roads down your way. We can't afford to lose a good man like you.

Ralph "One Shot" Avery fed a flock of partridge, cracked corn all summer. When the season opened, Ralph grabbed his trusty shot gun and went after them, only to find that someone had beat him to it, a few days before. Was he MAD???

Ivory "Poacher" Bowden reports hunting extra good in the wilds of Orrington. He bagged three husky rabbits recently, only to learn that a farmer had been feeding them all fall out of his garden, and they were tame.

QUIZ OF THE WEEK. Who supplies "Pop" Godscoe with those terrific El. Ropes cigars?

Norman Landry had a severe tussle with a dentist last week. For heaven's sake Normie, what did the other guy look like after the battle?

If this cold snap continues, we are going to pass the hat for contributions towards the purchase of five new auto batteries, in order to save the tempers and backs of our rural brothers names below: Eddie "Wild Cat" Burns, Larry "Windy" Hodgman, Ed "Speed" Bille, Wilmont "Bull" Burrill, and "Whataman" Lenfest.

Ralph "One Shot" Avery claims he knows a trout pond that is so full of trout they will snap at a bare hook. We will have a look with you this spring, but we suspect you will show us a hatchery pool and give us that old horse laugh of yours.

Conrad "Joe" Ekholm was chased out of the wilds of Alton last week by old Jack Frost. He is now living in Old Town with his family till spring. He is a real tough guy to beat "Joe".

Ambrose "Dead Shot" Eismor has the right technique about this hunting business. He sits under a thorn bush and waits for the partridge to fly in to feed on the plums. BANG. Meat on the table. We think he gets his deer the same way, by waiting under an apple tree. But you sure get them every season "Dead Shot" which is more than most of us can do.

"Dead Shot" forgive us for revealing your secrets, but we consider them too good to keep.

Two of our game hunters Ivory "Poacher" Bowden and Ed "Speed" Bille, swear by Their 30-30's, but have registered no deer this season. Maybe you boys could do better next year with a French 75.

Tommie "Tiger" Burns informs us he is in training again. He did not say what for, but we wish you the best of luck and hope you make the grade.

Observed on the last Hampden car last night; The Three Musketeers named below:

"Chesty" Sawyer, "Spats" Robinson, "Dimple" Street with their heads together, talking low. Scheming to pull a fast one on somebody, I bet.

The Editor wishes to take this opportunity to express our thanks to our Superintendent, and two Inspectors for their understanding attitude toward our hard pressed operators this Christmas. With large crowds, a tangle of thick traffic and cold weather to content with, we run off schedule lost trips and mixed things up in general. I am sure we give the Bangor Hydro our best efforts and cooperation, despite adverse conditions.

Milford-Old Town

F. A. Randall

In starting my report for this month, can think of only one little item which might by any stretch of imagination be called news.

It seems we are to have a new stairway to be located in the front part of the main room, near the entrance to the work room, and leading down to the second floor.

After this is completed the old wooden stairway, which is located near the front entrance to the building, will be removed and a double railing placed around this apperture which will be used exclusively for lowering and raising heavy objects to or from the lower floors by means of the crane. This change is being made primarily as a safety move, but it will also add materially to the convenience of the employees.

The outside crew of four men have been putting in most of time during the past few weeks, on the dams-cutting ice away from the boards, stopping leaks, etc. Monday, January 15th, this crew was increased to five by the addition of a new man Mr. William Jackson of Stillwater.

Operator Reed is utilizing his spare time cutting cordwood.

Ed. Ching made us a short call January 6th.

Alton Grant and helper were here January 8th.

Henry Perkins, still wearing that smile that just simply won't come off, called on us Wednesday January 10th.

Mr. Brown, Mr. Coffin and Mr. Cosseboom were among our callers on Friday, January 12th.

James Legace, who had just come back to work again after serving time for several weeks with a wrenched knee, was rushed back to the hospital for an appendectomy January 8th. Latest reports from him are all very encouraging and we expect to see him back on the job again in the near future. Late Flash - - Jimmie returned to his home Tuesday, January 16th.

Quite a lot of ice fishing going on around here this winter. About four weeks ago Al Sawyer Sawyer took me up to what is known as Jail Boom on the main river in the Pea Cove section. Result of this trip - three nice pickerel and fifty yellow perch. Sunday afternoon, January 14th,

Frank Kent (our new School Supervisor), Asst. Operator Cunningham and I went out to Pushaw Lake and brought back four nice pickerel.

At the Old Town office preparations are being made to install a new lighting system.

Mr. Grose and Mr. O'Connor attended the G. E. Demonstration of Electrical Equipment at the Penobscot Exchange, Bangor, January 16th.

We have had many requests for a copy of the Christmas issue of the "News" at this office.

Joe Kingsbury and crew are here making changes in the lines on South Brunswick-Bradbury and Oak Streets in preparation for a joint line with the N. E. Tel. Company.

The Moose River Company which is located in the old woolen building, have started a branch enterprise at the Hunt and Milliken Mill. I believe they propose to manufacture composition heels and soles at this place.

Rat Bomber LeBreton has scored several direct hits lately, but is still trying to discover a method of inducing his victims to do their dying outside instead of hiding away in some obscure place in or about the office where they sometimes remain undiscovered for several days. How about some sort of endless belt arrangement, Walter?

Weather forecast for Maine - Fair and Cooler Tonight and Tomorrow. Frost in the interior tonight. Sounds reasonable. All exteriors up this way have been frozen solid for the past several weeks.

Meter Readers

James L. Perkins Maurice McDonald

We are glad to hear that No. 1 meter reader is recovering from the loss of a tooth, which we understand made a large dent in his pocketbook.

It is rumored that ex-meter reader Millett while racing a Buick to an intersection, came out a tie.

The cellars are at their darkest this time of the year, but with our "new" flashlights we have little trouble.

We expect to have a picture or two in a couple of months.



Although we have had constantly cold weather for the past month, one noon it was warm enough for two of the Ellsworth office girls to step outside and face a camera. These girls, Althea Lake and Edith Hale, complained that it was much colder than they had seen a few days previous in Miami.

Ellsworth

Alfreda Strout

During the month Mr. Cosseboom arranged to remove arc circuit tub and installed a new outdoor tub on South Street. In connection with the tub there was installed a G. E. electric clock which controls the "on" and "off" of the lighting circuit.

Today, January 20th, Shirley Carter came back to work after two weeks of illness with the Grippe.

The children of the employees of the Ellsworth Division were happily surprised to be invited to the party at the Bar Harbor office with Santa Claus as their congenial Host. The parents realize that our President and General Manager were responsible for the afternoon's joyful entertainment and gifts. The facilities that our new office in Bar Harbor have made possible an ideal setting for the occasion. With Mr. Austin's cooperation Santa Claus arrived on time.

Miss Kathryn Carson, who has been the temporary girl for the summer season, left us January 8. She is now attending the Maine School of Commerce for a few months.



Reconstruction of Line No. 1.

By

Kenneth S. Cosseboom

Field Engineer

The major job of our 1939 Budget was the reconstruction of Line No. 1. This is the 50 KV transmission line connecting the Veazie and Ellsworth Power Stations.

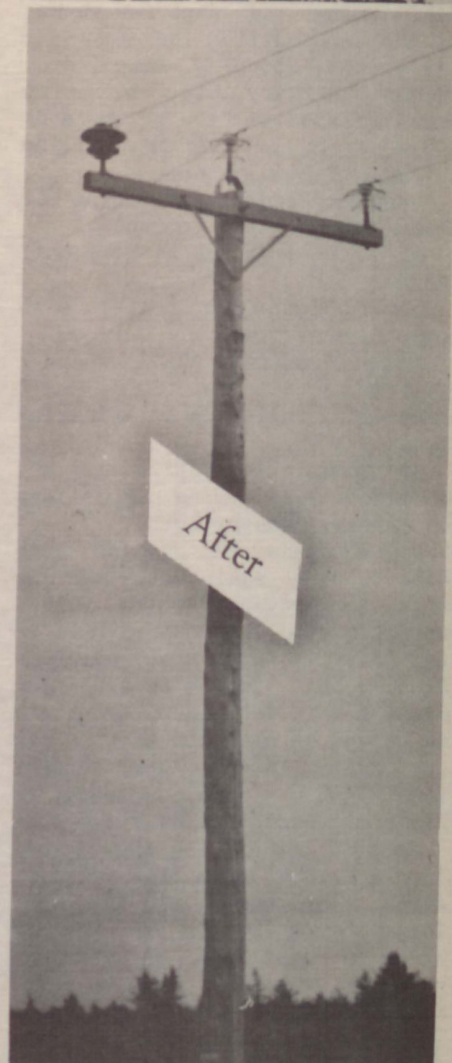
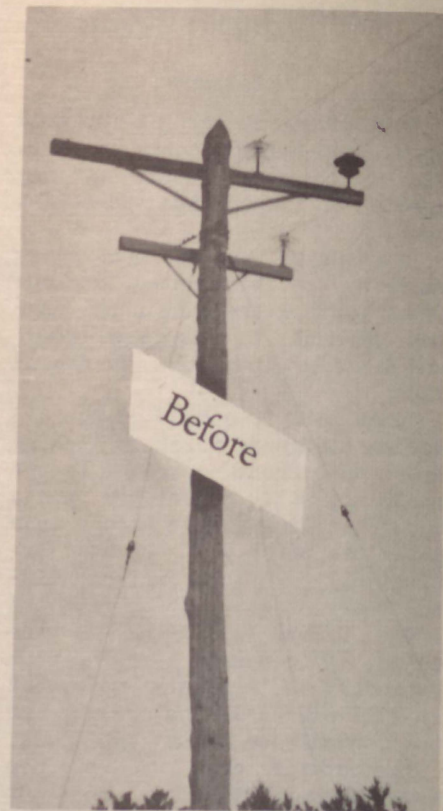
Line 1 was built in 1907-08 to operate at 33 KV. It was designed for double circuit but only one circuit was ever installed. In 1919, the line was reinsulated and the voltage raised to 50 KV, which served the needs of our system until the capacity of the Ellsworth Power Station was increased in 1938. This increase in output called for changes to be made in Line 1 to prevent excessive losses and regulation.

The reconstruction consisted of replacing all poles that an inspection showed were not good for five years with increased conduc-

tor load. All defective cross-arms were replaced and the line arranged for single circuit construction with triangular conductor spacing, the top conductor being carried on a ridge pin. A large number of insulators were replaced and the original conductors, which were #3 solid copper were replaced with #4/0 A.C.S.R. (aluminum conductor steel reinforced).

To those not familiar with wire sizes, we might make things clearer if we said the new conductor was a little over twice the diameter of the old. The old conductor was about the size of an ordinary lead pencil.

Approximately 3/5 of Line 1 is on right-of-way. A large part of the right-of-way parallels the M. C. R. R. tracks. The undergrowth





In the group above, Foreman Joe Kingsbury sits out front. In the second row, from left to right, Linemen Jimmy Farrel, Hank Grindle, Phil Gay, Bob Geikie, Harvey Quimby and Jim Hodgins. In the back row, left to right, are groundmen Clinton Cosseboom, Paul Kruse Jr., Frank Everett, Allan Woodcock, Jr., and Shorty Swett. Part of the crew that summered along line No. 1.

was trimmed the entire length of the line before the reconstruction work was started. H. Rich of Eddington did the trimming from Veazie to Lucerne-in-Maine, and H. L. Wheelden of Bangor did the trimming from Lucerne - in Maine to Ellsworth.

* * * * *

The material needed for the repairs to the line was distributed to the poles on the rights-of-way by H. Rich, a push-car being used where the right-of-way parallels the M. C. R. R. tracks. H. L. Wheelden did most of the digging and pole setting, under contract. Joel Kingsbury, Foreman of the Line Construction Crew was in charge of the job. He was assisted by the Ellsworth crew under Blaine Holmes when in that division, and by the Bangor crew under Percy Burton when in the Bangor division. Joel's crew of linemen was increased to nine and a temporary crew of groundmen was formed. The groundmen were mostly high school and college students, a large number of them had never been on a construction job before, but they soon caught on, and did an excellent job. It was rather amusing to see what a new

man would pick up when asked to pass a square washer or thru bolt.

* * * * *

The line had to be in service every day around 5 PM, until 7 AM the following day. Therefore, all work had to be planned so the System Operator would not be delayed. This, however, did not help any while the wire was being changed as each night all old wire had to be removed and all new wire put in permanent position, and temporarily deadended for the night. The next morning these deadends had to be removed and the new run spliced on. Each day the next run of wire was laid out. This was a very simple matter along the right-of-way where there were no distribution circuits on the line but a rather difficult job where the distribution circuits were and service could not be interrupted. There is approximately 9 miles of distribution on this line. A weird looking contraption that was called a "portable sub-station" was built and used at various points along the line so that service could be maintained and as much as possible of the 2300 volt primaries made dead.

The new wire was laid out from line trucks along the highway and with the use of horses in the right-of-way, except where the going was too rough for horses. There the groundmen did the pulling and one fellow was heard to say "I never realized that line crews had to work this hard".

During July, we had several hot days. Water was rather scarce, and some of the men were affected by the heat. We found that Thermotabs (salt tablets), taken with the drinking water, helped those that the heat affected.

When it is remembered that a part of this line is along the Bangor-Bar Harbor highway, and that the work was carried on during the peak of summer traffic; also that a large percentage of the crew were inexperienced men, and the line was over 30 years old with 9 miles of live conductors under the wires being changed and that the job was carried through without a lost time accident, the crew have every reason to be proud of their job, especially the foreman.

Test made during our heavy loads this Christmas season show the new line to be performing slightly better than calculated.



Joe Kingsbury was seldom on the sidelines while Line No.1 was under reconstruction last summer. Top above, Joe is easily identified with the stiff straw hat. At left is part of Harry Whelden's crew and at this minute Harry is at the right of the pole. At right Walter Grindle seems to be carrying more than his share of the load.

Orono

Mildred Willard

Our Editors sent us this month a recipe for one column of news. I am going to retaliate by sending a recipe from the other side of the desk.

Ingredients: one pencil, well chewed; one sheet of paper, garnished with erasures and crossed-out phrases; one or more pictures (these may be omitted); several badly spelled words; and a lot of nerve.

Add one pinch of memory-racking and one of close cooperation from fellow workers (especially Mr. Grindle).

Flavor with punctuation marks wherever you think they'll look good. Garnish with a little doubt as to its acceptance by the Editors.

Re-reread several times and serve to the Hydro News Editors by trolley just in time to make the month's dead line.

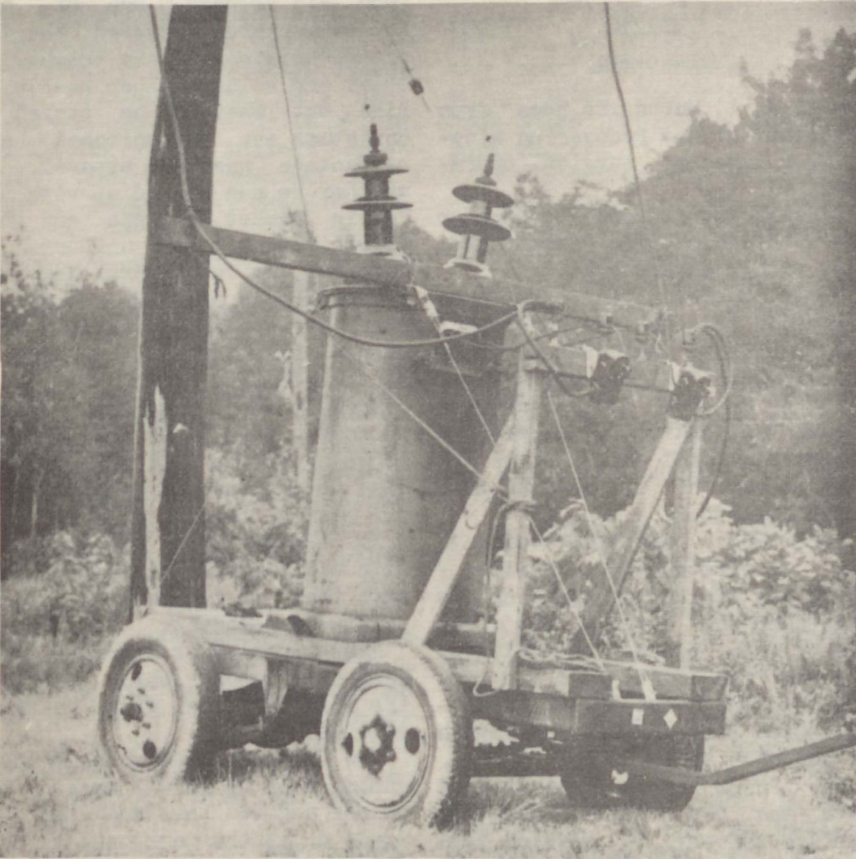
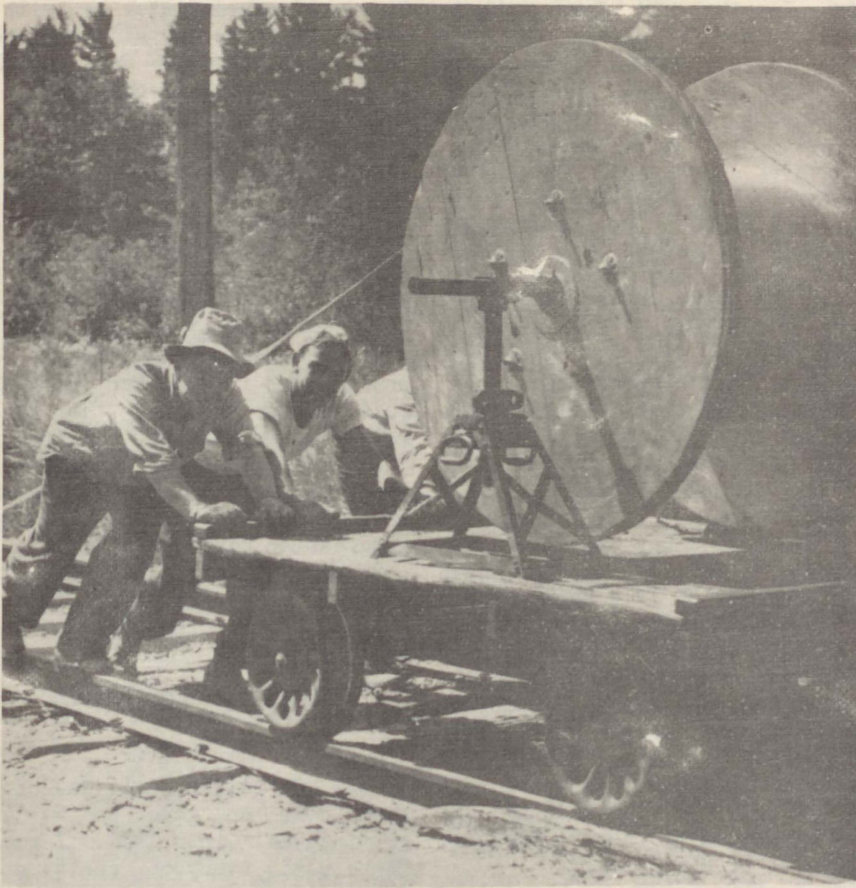
The whole is very apt to turn out like a sponge cake I made once. 'Nuff said.

We were very glad to welcome as callers this month Mr. Hall C. Dearborn, Maurice Perkins, H. E. Hammons and Milton Vose.

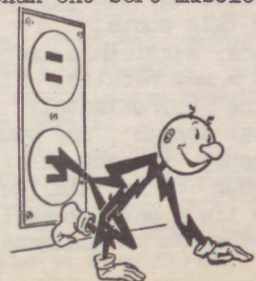
All Orono citizens were gratified to read the announcement by Mr. Graham, speaking for the Eastern Corporation, that the mill at the Basin would start operations again, probably sometime in March. This mill ran for some time as the Orono Pulp and Paper Company and provided employment for Orono people which has been sorely missed. Its re-opening should be a big help to the town.

Manager Warren Grindle attended the General Electric showing at the Penobscot Exchange on January 16th. He reported a fine line of G. E. merchandise for 1940.

The skating rink behind the Memorial Gymnasium, made and maintained by the University of Maine, has been a very popular place with the Hydro family. It has also been responsible for more than one sore muscle.



In top picture, a reel of new 4/0 ACSR moves slowly along the track under motive power of John Graham at left, Dick Morse in center and Edward Graham well hidden behind the reel. Below is the temporary, portable substation.



Millinocket

Ellen M. Barnes

The Millinocket store seems dreary now since the boys have removed all of Mr. White's gay Christmas trimmings and have taken our outdoor Christmas lights and star down, and stored them away in moth balls for another season. Millinocket Main Street, too, looks gray and lifeless, without the umpteen bright strings of colored lights that we enjoyed for so long.

The Millinocket line crew was ably assisted by the Lincoln crew this month in changing insulators on Line 7, on the Island, just below the Medway Power Plant, and in replacing pole #43 near the Rice Farm. They also installed primary main extensions in Millinocket.

Manager Fernald made several trips over Line 7 this month, checking, supervising, and advising Harry Wheelden and his crew in clearing the heavy growth and cutting the large trees that interfere with our lines.

Recently, our store and office played host to "Tex" Fletcher, Star of the Western movie "Six Gun Rhythm", who made a personal appearance in town and on the stage with the movie. "Tex" was received in front of Millinocket's Opera House, where the movie was playing, was given the keys to the town, and was then escorted through our Main Street, having a few minutes visit with each Merchant on the street.

Millinocket's new State Armory was formally opened January 16th, with a concert and ball. Governor Barrows led the Grand March and presided over the affair. Several of our Hydro employees attended and reported a fine time even though we did need a half-day off to catch up on our "beauty sleep" - eh, Chet? Maybe it was the Jitterbug-ing?

Mr. H. V. Haskell, Manager of the Lincoln Division, made us a brief visit this month.

Manager Fernald and Salesman Foss attended the two-day meeting in Bangor this month.

Ivan Buck, serviceman, recently purchased a new necktie. His old one, being approximately twice the average length, was somewhat of a nuisance so now he is the proud owner of a blue and red plaid bow tie. Such class!!

John Herbert's bloodhound is

getting to be quite a large dog now. In the old days, Johnnie took the dog for a walk, now it's vice versa, though Johnnie is teaching the pup that "whoa" means stop, not go. "Sunny" is a frequent visitor to our office.

Chester Crawford, our Meter Reader, a bit uncertain and quite pale and shaky - so I hear - was recently initiated into the Masonic Lodge. Mr. Fernald, Ivan Buck, and Archie Foss, all members of the Lodge, also attended that evening, to add what they could to Chet's uneasiness.

Visitors in this division were few and far between this month. H. E. Hammons, and Milton Vose called during December, while Floyd Hudson and Bill Harper were our New Year's Day callers. H. E. Hammons called again a few days ago accompanied by a prospect for a commercial refrigerator box.

Manager Fernald recently spent many busy evenings compiling material for the Annual Report of the President of the Millinocket Chamber of Commerce and it was with much relief that he sent it on its way to the printer. He was succeeded by Robert Emerson, Druggist of Millinocket.

Veazie

James Gamble

Mrs. H. L. Mutch is home from the hospital and recovering nicely from a recent surgical operation.

Earl Parks returned to work on the 19th after being absent three days with a severe cold.

Ralph Shorey's age has been discussed at some length recently and I think he agrees that it is double what the records show, since he has been doubled up with a lame back and could not seem to get straightened out, but we are glad to say he is showing some improvement now.

Reporting - one fatal accident - Pig electrocuted. Details: - While Joe Darling was bedding his pigs down one evening last week, one of them became "inquisitive, and bit the light cord in two, and with one short squeal promptly keeled over as dead as though he had been shot.

The Phono-charger, installed with the new higher capacity storage battery, is working very nicely since the last visit of "Bill" Bagley of the G. E. Company, at which time he re-vamped it somewhat.

One day last week the Assistant Operator rushed into me with a report that the new station basement was flooded. Sure enough, there was a real flood there with water pouring into the floor, through the drains. The drain pipes had frozen at the outlet to the river, and rain water from the roof was backing up into the basement. After getting up steam on the boiler and thawing the drains, the tide receded quickly.

Our water wheel repair work is not progressing as fast as we would like it to, but when the cold weather requires the while repair crew most of the time to clear ice from the flashboards and keep a channel open above the dam, we can't seem to make much progress on repairs.

Oh well! Next July the ice won't form so fast, and then we will have something else to keep us busy.

Service Building

Henry F. Ryder

Well Christmas and New Year have come and gone and we are getting well into 1940. I guess Santa used everyone pretty good from all reports. One of our fellow workers appeared the day after Christmas with a bright red shirt and we have been unable to find out whether he stayed up Christmas eve and snatched part of Santa's wearing apparel, or whether he has signed up with the Veazie Bucket Brigade and the shirt is part of the uniform.

Foster was out several days after Christmas nursing a cold and Berry was out from work last week with a sore throat, but is back on the job this morning.

Harry (Peanut) Martin joined our crew last month as janitor. He was formerly with the Commercial Department as a helper in Joe Davies' crew.

Mr. Tupper is experimenting with oil heating this winter, and says that it is becoming an expensive experiment.

Harry Greeley is sporting a new Chevrolet truck which replaces the Ford that has given faithful service.

The Commercial Department has a campaign on Universal Washing Machines and we have had two carloads in at the warehouse to supply their needs.

News is scarce due probably to the cold weather, so will try to find a little more for next month.

Sub-station

Lester Tasker

As 1940 is quite young yet, and not much time to get personals. I think there were several things happened during 1939 that may be of interest to the Hydro News readers. Everybody at the Sub-Station reports a very Merry Xmas and all say Santa Claus used them very good. With New Years over everyone here seems to have settled down to another year of work with the B. H. E. Co. and hope the Company will have a most prosperous year. We will all do our part.

There were many changes here during 1939, the first being the changing of the name of the west side power circuit, to lower Main Street, and a new set of voltage regulators being installed. Until now this power circuit was not regulated. Next on April 4th, the operating department went on a 42 hour work week. With this change Edson Bartlett joined the substation crew as a regular operator, coming to us from the Railway Department. Edson completed 25 years of service with the Company and received his emblem from Mr. C. H. Johnson, the President of the Quarter Century Club, November 13th. Mr. Bartlett won the first prize of \$10. in the Christmas contest for essays "Christmas Comes but Once a Year". Congratulations Edson.

We can now boast three Quarter Century Club members at the substation. They are Messrs. A. H. Doane, F. G. Usher, and E. M. Bartlett.

In mid summer the name of the East side power circuit was changed to Garland Street, and a set of voltage regulators installed. Until now the East side power circuit was tied into the Center Street circuit outside the station, and regulated by the Center Street regulators.

In November when the new underground loop was completed, it was necessary to install two sets of disconnecting switches at the substation, in order to regulate the voltage on both ends of the loop in case of trouble, and also normal operation, with one set of regulators.

A new automatic voltage regulator for our 60 cell, 140 volt, battery system was installed Dec. 19th, by Pop Nelson, and Bob Edgcomb of the Electrical Department.

This completes the changes and new equipment, for the substation for 1939.

Now just a few for the system operator's office; first when the office went on the 42 hour work week on April 4th, Lester Tasker joined the system operating dept. as a regular system operator. Mr. Tasker has been connected with system operating since September 1927. From this date to September 1933 he was a spare system operator and a regular substation operator. From September 1933 to April 1939 he was relief operator for both the system operators, and the substation operators.

Our only new piece of equipment was a Burrough's adding machine, which also subtracts. This is an all-electric machine.

The system operator's board was brought up to date, and the section switch numbers out on for the entire transmission system. This was done by Mr. Ira Dole of the Engineering Department late in December, 1939. Edward Ching started learning system operating to be a spare system operator. At present he is with Harold Adams who is relief system operator. This gives Ed. a good chance to learn all the different shifts. We all welcome Ed. to our department, and hope he will enjoy system operating. Ed. you know comes from the Electrical Department.

This completed the changes, and new equipment for the system operator's office; also the news to date for the substation.

Did you notice our Chief System Operator's picture in one of the Bangor papers a few days ago, zipped up like an Admiral? We understand he is a retired captain and are wondering if he has been called back in service again. How about it Strouty?

Executive Dept.

Faustina Emery

Mr. Johnson recently attended a meeting of the Commandery in Waterville, where the work was exemplified by the members of the Grand Commandery.

The other day Mr. Webster and Mr. Dearborn appeared with a goodly supply of candy in their possession. We are wondering if perhaps they aren't peddling candy "on the side". Who knows, they may have got the candy at a discount when a certain "Candy Peddler" left town unexpectedly.

The final report for 1939 of KWH use per residential customer shows that Orono continues to lead in average use. Machias with an increase of 60 KWH per customer or 12.5% increase leads in results from sales activity during 1939. The divisions in order of average use are as follows for 1939:

	Aver. Use 1939	Gain over 1938
Orono	1259 KWH	112KWH 9.8%
Bar Hbr.	1185	72 6.5
Bangor	914	83 10.1
Millkt.	827	63 8.2
Company	794	46 6.2
Ellsworth	655	37 6.0
Machias	541	60 12.5
Old Town	534	16 3.1
Lincoln	486	17 3.6
Eastport	395	24 6.5
Harrington	388	15 4.0

Has anyone seen the Doodle Bug? We ask this question because a recent Machias paper contained an article with this interesting caption - "Doodle Bug Captured in Maine Wilderness by Lumbering Crew". On reading the article we discovered that a Doodle Bug is "A bug the size of a small turtle standing on his hind legs and emitting the sound of one of our most common birds". It seems that the last Doodle Bug seen was in the Western Hemisphere off the coast of South Carolina, in the Summer of 1965. It seems that the Doodle Bug is principally a meat eater, although he will eat small quantities of vegetables, such as potatoes, but he will not touch turnips. The Editor's note at the end of this article stated "Whether or not the Doodle Bug owned by Mr. White has any connection with the Kitter Bug arrested on the Mississippi highway for trucking without a license, we do not know; but it is a fact that natives and tourists we well will feel safer, knowing that the vicious animal (or reptile) whose bite is said to be potent enough to kill a human, is now in captivity.

We might add that "Faster for Forty" Townsend worked on the first floor Saturday and we feel sure that his new resolution will bring results.

Because we do not wish our readers to think we are not serious-minded on this floor, you will note we have put our most impressive news first.

Some Factors in producing Quality Concrete

By

Elwood W. Jennison

Hydraulic Engineer

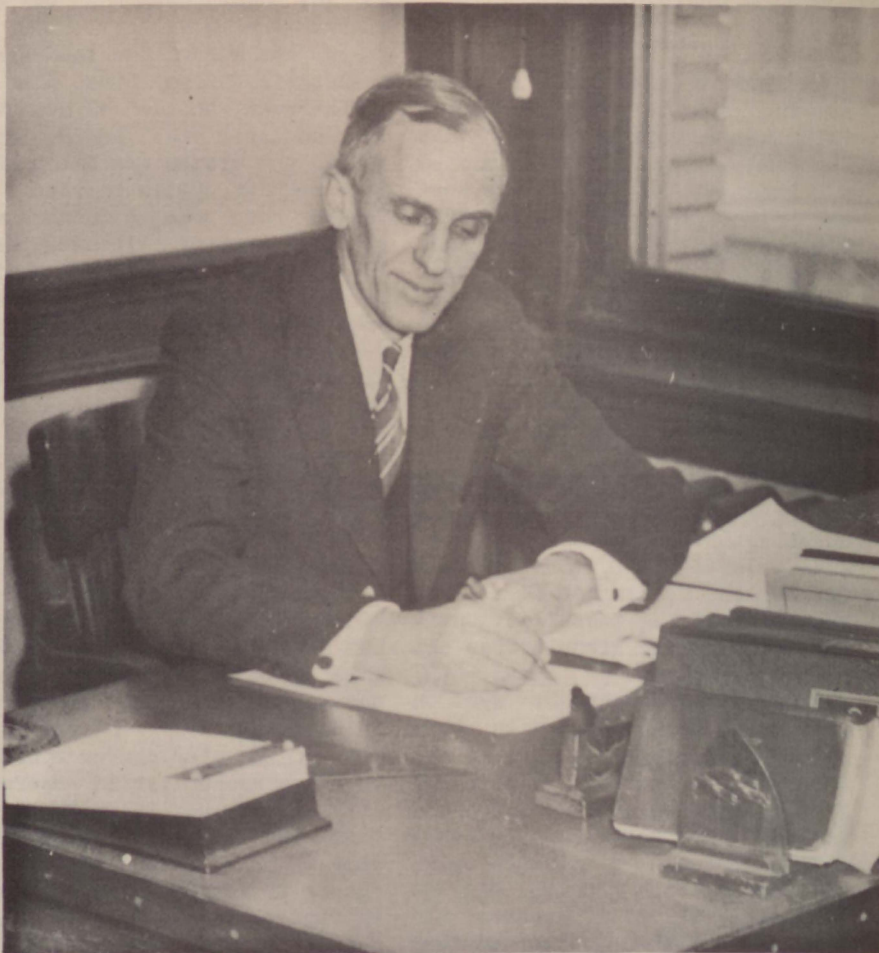
A factor of vital importance in the production of high quality concrete is the proper grading of the sand and stone which are mixed with water and cement to form the product known as cement concrete or, in simple parlance, just concrete. Proper grading means the right percentage of each size particle all the way from the fines of the sand up through to the coarsest stone used so that there will be a minimum of voids or spaces when the sand and stone are all mixed together. To insure this, proper sand and stone must be found.

Another factor equally important is to keep the quantity of water used in mixing the concrete down to a minimum consistent with proper workability of the mix. For example, excess water to the extent of 50% over that required for good workability may reduce the strength of the concrete by as much as 50%.

Other important factors are to have the sand, stone, and water perfectly clean; selection of aggregates of the proper hardness; thorough mixing of the materials; proper placing of the mixture, and after placing, seeing that the concrete is properly cured. This is done by keeping it damp and as cool as possible, consistent with the heat generated within the mass while it is hardening.

New Power Station at Veazie

In the spring of 1938, work was started on our new power plant at Veazie. A problem was encountered long before actual work started. It consisted of the selection of proper aggregates for the con-



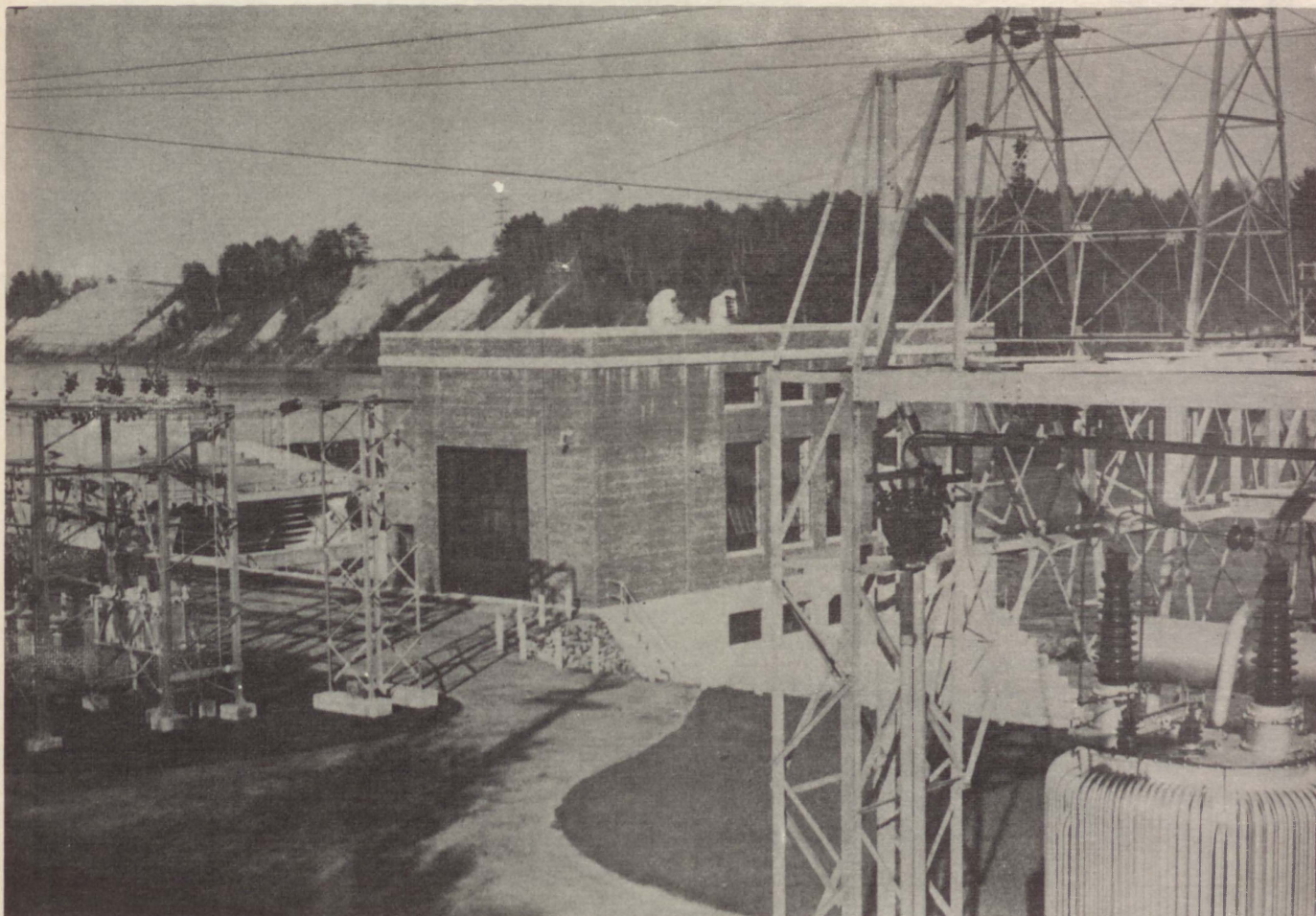
crete. A crushed and graded stone which was washed was located nearby and by tests, it proved to be satisfactory. The selection of a proper sand was not so simple. Tests were made at the University of Maine Laboratory on four sands from different pits, one of which was a washed sand from the same source as the stone. This last proved too coarse, producing a harsh mixture. The other sands were too fine. By producing actual concrete in the laboratory, a combination of 50% of the washed sand with 50% of another sand combined with the washed stone gave an excellent aggregate grading and the highest strength concrete and indicated that at least 3000 lbs. per square inch could be used for the compressive strength of concrete in design.

From a total of 14 tests taken from actual runs on the job, the average strength of the concrete which went into the structures proved to be 3400 lbs. per square inch. Again the benefit of preliminary investigation was well proved.

An interesting feature of the design of the concrete substructures, both at Veazie and Ellsworth, was the location of sheet copper water stops at all construction joints where it would be undesirable for water to seep into or out of the structures. This seepage of water stains the concrete and further, spoils the appearance, particularly on outside surfaces which later spall off with frost action. Concrete will absorb water and hence it is highly desirable to provide some sort of water stop.

Replacement at Ellsworth Plant

Early in the fall of 1937, search was made for suitable aggregate for this piece of construction work. A suitable well-graded stone which had previously been used and tested satisfactorily was arranged for. We were fortunate, after gathering several sand samples at pits near Ellsworth and submitting them to



(Illustration No. 4)

Veazie

test at the University of Maine Laboratory, to find that the pit located nearest the job had produced a sample which passed all tests in a thoroughly satisfactory manner. This sand, when combined with our stone previously selected, indicated that we should obtain concrete which would have a compressive strength of 3000 lbs. per square inch.

Tests taken from 25 different actual concrete runs throughout the job averaged 3600 lbs. per square inch. This excellent concrete was obtained because we paid careful attention to all factors enumerated in the opening paragraphs.

Trenton Crossing

Tower Footings

The concrete footings for steel high tension towers carrying current to Mt. Desert Island, located at Trenton Bridge, have always been more or less of a problem. They are within the limits of

tide, and being of concrete, have not withstood the ravages of salt water any too well. Numerous attempts to repair them with granite blocks and different mortars proved only temporary. Hence, in the summer of 1939, an interest-scheme to protect one footing was carried out which consisted of placing a wrought iron casing around the old footing which had been just previously cleaned of all dirt and loose concrete. This casing extended from below ground surface to a height above high tide. The space between the old footing and the casing was then filled with concrete and the iron painted.

We anticipate this protection will last many years and present throughout its life, a neat appearance.

Surface Repairs at East

Machias Power Plant

In the year 1937, a very satisfactory job of repairing the dis-

integrated surface of concrete was carried out. About 1000 square feet of the outside surface of the power house substructure had become badly disintegrated with frost action. All loose and soft concrete was removed to a depth of from 2" to 6" or more back of the original surface. Forms were constructed for filling with concrete to bring the surface back to its original lines.

The interesting part of the procedure, to a layman, is the fact that the concrete placed in these forms contained, in addition to the customary cement, sand, stone, and water, another ingredient called "Embeco", which prevents concrete from shrinking when it hardens. This rids the surface of hair cracks and not shrinking away from the old work gives a better bond to it. In addition, the resulting concrete is stronger for the addition of the "Embeco" and this enables the concrete to withstand frost action better.



A Busy Two Years
in the
Operating Department
By
Ernest W. Brown
Operating Engineer

During the last two years, the Operating Department has had a tough job keeping up with the large amount of work that it has had to do. Starting in December, 1937, with wiring of two new generators at Ellsworth, installing switchboards and all of the accessories to go with these automatic generators, kept Mr. Junkins and the Electrical Crew on the jump. Not only did this job take up the time of Mr. Junkins and crew, but our regular inspections, maintenance and repairs of other equipment had to be taken care of. This was all done without any complaint and I think at this time, a word of praise should be given Aubrey Junkins.

Bill Harper was right on the job too, checking over the automatic features of the new units, also checking all of the automatic equipment on our system. Nevertheless, Bill does not mind working nights, Sundays, and holidays.

We must not forget our genial Hydraulic Superintendent, George Dow. George unloaded and moved all of the equipment of the two

new units, at Ellsworth and also worked with erecting engineers on both units. George says he knows every bolt, nut, and washer used in assembling these units.

While things were in full swing at Ellsworth, the installation of two new units at Veazie was on the way. This had our Electrical Department stumped so we had Jim Gamble, with the assistance of "Pop" Nelson, take up a notch in their belts and go to it. Jim and "Pop" did a good job with the conduits and cables, the connecting of generators to control panels, and all of the automatic equipment. Jim also did an excellent job painting the new station. Jim and his crew are proud of it, and well they might be.

1939 was a year as busy as any we have had since 1929 and 1930. As soon as the snow and ice left us, we started in at Millinocket increasing the capacity of the substation, removing 3 - 200 KVA transformers, and replacing them with 3 - 333 KVA, which we took over the road. The 3 - 200 KVA transformers were taken over the road to Milford where they were

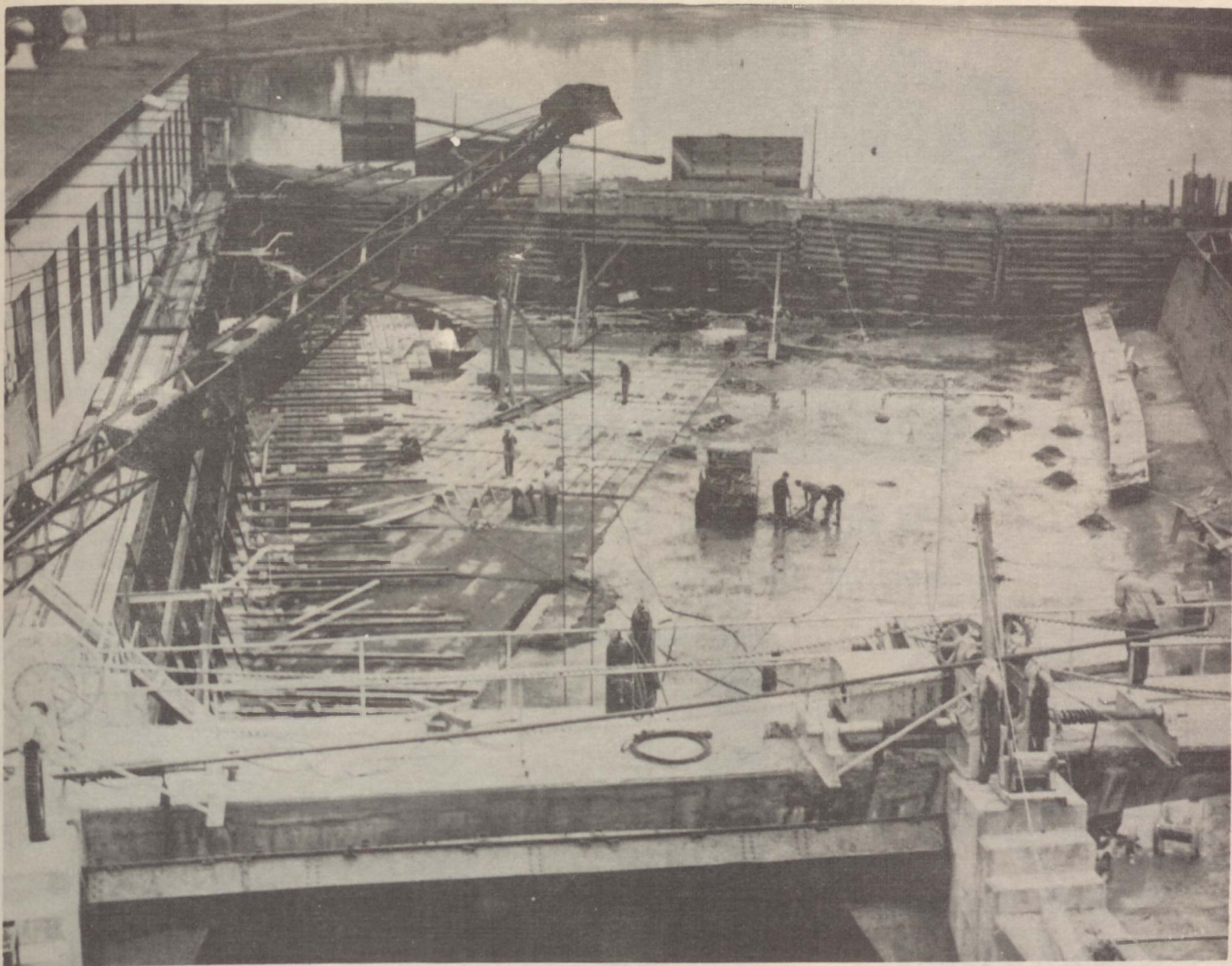
rewound by Ed Ching for a different voltage. They were then taken to Bluehill to increase the capacity of Sargentville Line. A new bank of 3 - 333 KVA transformers was installed at Bluehill for the first step-down of voltage.

While the Bluehill transformers were being rewound, the crew dismantled the 6000 KVA substation at the Great Northern Paper Company's mill at East Millinocket, the steel structure taken to Medway and the transformers to Bangor. Meanwhile, two of the transformers at Fuller Road Substation let go with the result that considerable juggling of transformers between Veazie and Fuller Road had to be done.

An automatic reclosing Oil Circuit Breaker was rebuilt in our shop and was installed at our Orrington - South Brewer Substation.

* * * * *

In September, it was noticed that a section of Central Street, about 200 feet long, had settled



Veazie

approximately one foot. Our main duct line was in this section with eight primary cables, trolley feeder and several 220 and 550 volt services feeding the entire west side. An inspection of duct line was made and it was found that this line had broken off a short distance from the bridge over Kenduskeag Stream. Conditions were such that a new duct line and new cables had to be installed as soon as possible. A new duct line was installed by a local contractor (William Given). New cable was ordered and immediately upon its arrival the Electrical Crew, under the supervision of Aubrey Junkins, started replacing old cable. Approximately 3500 feet of new cable was installed, along with trolley feeder and several 220 and 550 volt services. It is well to note that the cut-over from old to new cables was done without a moments interruption to our customers or any lost time accidents. Much credit is due Aubrey Junkins and Sam Marsh.

This past summer, the old fishway at West Enfield Dam was removed and to reinforce the canal bank, a rock filled crib was built. This crib was constructed with 10 x 10 hemlock and is 10 feet wide, approximately 14 feet high, and 80 feet long. A section of apron of the West Enfield Dam next to west side of log sluice was removed. Both jobs were done with the local crew and much credit is due Frank Corribeau for the efficient manner in which the jobs were handled.

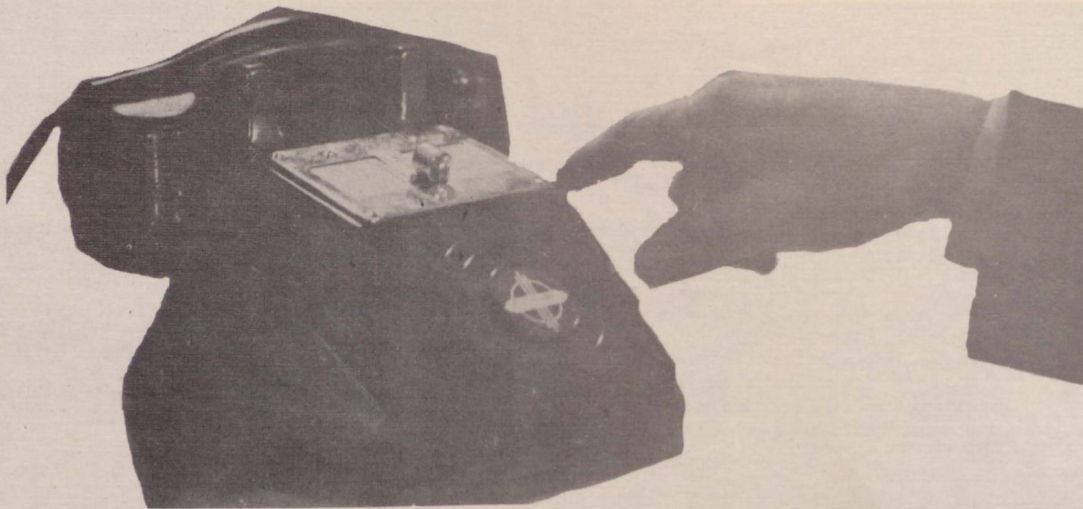
In December, we installed a new water system at Veazie Station with a capacity of 3000 gallons per hour. City water service will be retained for hydrants and stand-by purposes only.

"Allie" Grose has done a fine job cleaning the walls and ceiling of Milford Station. It sure

has made a big improvement in the appearance of the station and has increased the light. Good work "Allie".

Veazie Station had its share of anchor ice during the month of December. On the night of December 8th, Veazie plugged solid, shutting down both Station A and Station B flat from 2 A.M. to 11 A.M. December 9th. This same run of anchor ice plugged the river below the stations to such an extent that the output of Veazie was reduced considerably during the month of December. Dynamite was used to open up a restriction in the channel at Eddington Bend. In so far as the rest of the plug was concerned, it was decided to let nature take its course. By the last of December, tail water at Veazie was restored nearly to normal.

Let's all hope we can keep as busy during 1940 as we were in 1938 and 1939.



"Be not the first by whom the new is tried
Nor yet the last to lay the old aside."

In the face of this wise counsel of an ancient philosopher, the Bangor Hydro-Electric Company has never lacked the confidence to adopt a new device or a new method, once it has been proved worthy.

Carrier Current Switch Control

By

Harold W. Coffin
Electrical Engineer

Probably the newest in principle of the developments of the House of Magic, which we have adapted to our service, is the Bar Harbor Carrier Current installation. To the layman, it is unimpressive in appearance. At Burns' Corner, he notices a small green-and-white battery house inside a fence; a sheet metal box mounted on a pole; a couple of outsize porcelain insulators connected to the 33 KV high line; and that is about all. The Young's Corner station he fails to see, for it is down in the woods, away from the highway. At Ellsworth, he might possibly note that a few new gadgets had gone into the outdoor substation.

On the Ellsworth Station Operator's desk, he will find a de-



vice looking like a new telephone desk set, with a small operating lever projecting from the side. At once the questions arise: "What does it do? What is it good for?"

In brief, it is the answer to Mr. Graham's question: "What can we do to shorten service interruptions to Bar Harbor?"

Prior to installation of the carrier, an outage on the Bar Harbor Line called for a lengthy

process of patrol, sectionalizing and testing, in order to locate and isolate the trouble. Difficulties with telephone communication during storms, and the necessity of protecting the crews working around 33 KV all contributed toward delay. None knew better than the Bar Harbor and Ellsworth line crews, that to locate and isolate trouble in less than an hour and a half called for uncommonly good luck.

Isolating the Faulty Section

With the new carrier current equipment, the Ellsworth Station operator, without leaving his switchboard, sectionalizes the 33 KV line, tests, locates and isolates the faulty section, and restores service on the good sections before sending out the line crews to repair the trouble. This saves the Bar Harbor crew a 17 mile drive in the storm, for switching only; and saves sending two crews when only one is needed.

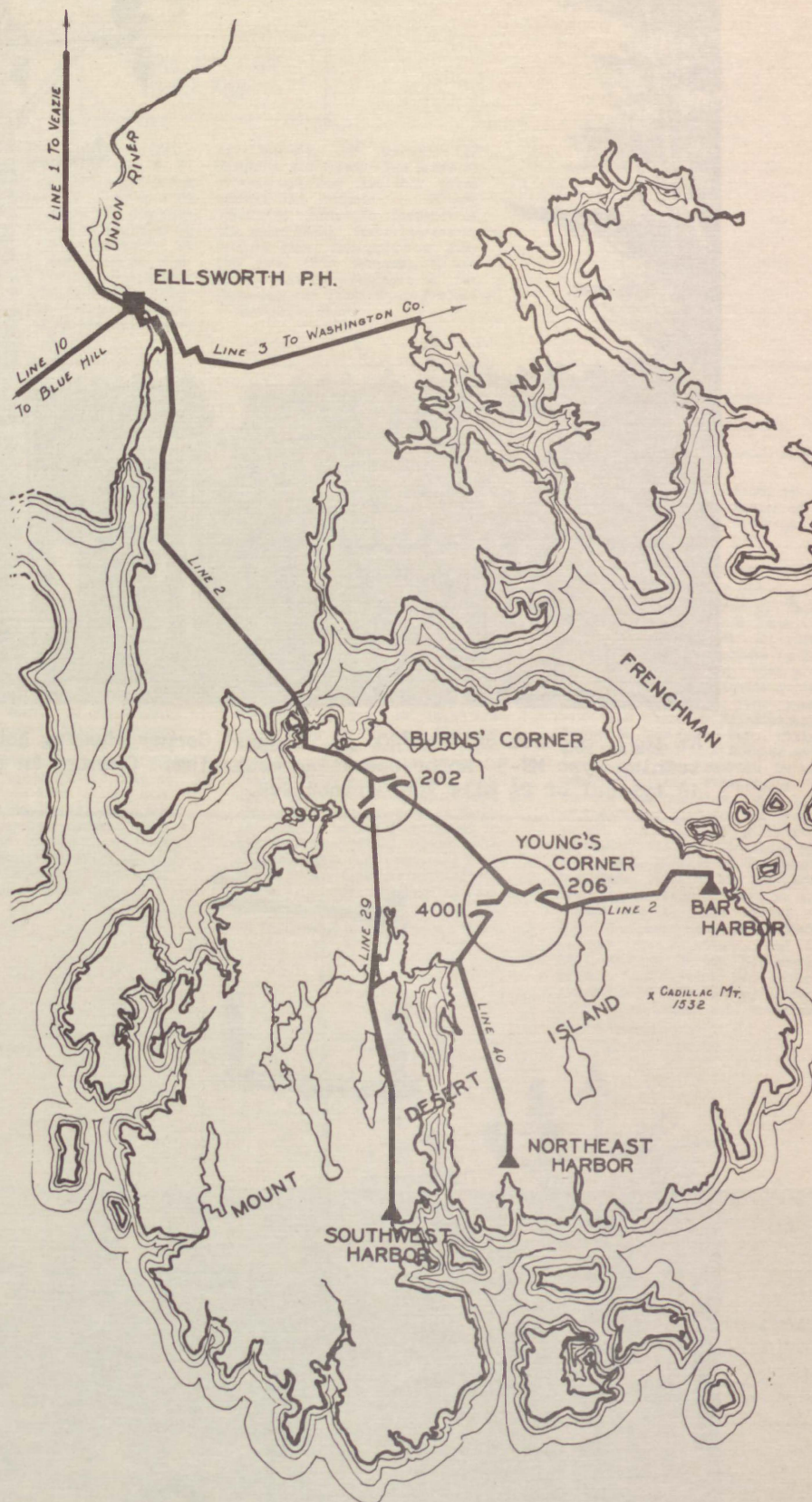
Thru the carrier, the Ellsworth operator has direct control of two section switches at Burns' Corner and two at Young's Corner, at a distance of twelve to fifteen miles from Ellsworth. The switches disconnect the 33 KV branch lines to Southwest Harbor and Northeast Harbor, beside sectionalizing the main Bar Harbor Line at the switching points. Telephone communication is included along with the switch control.

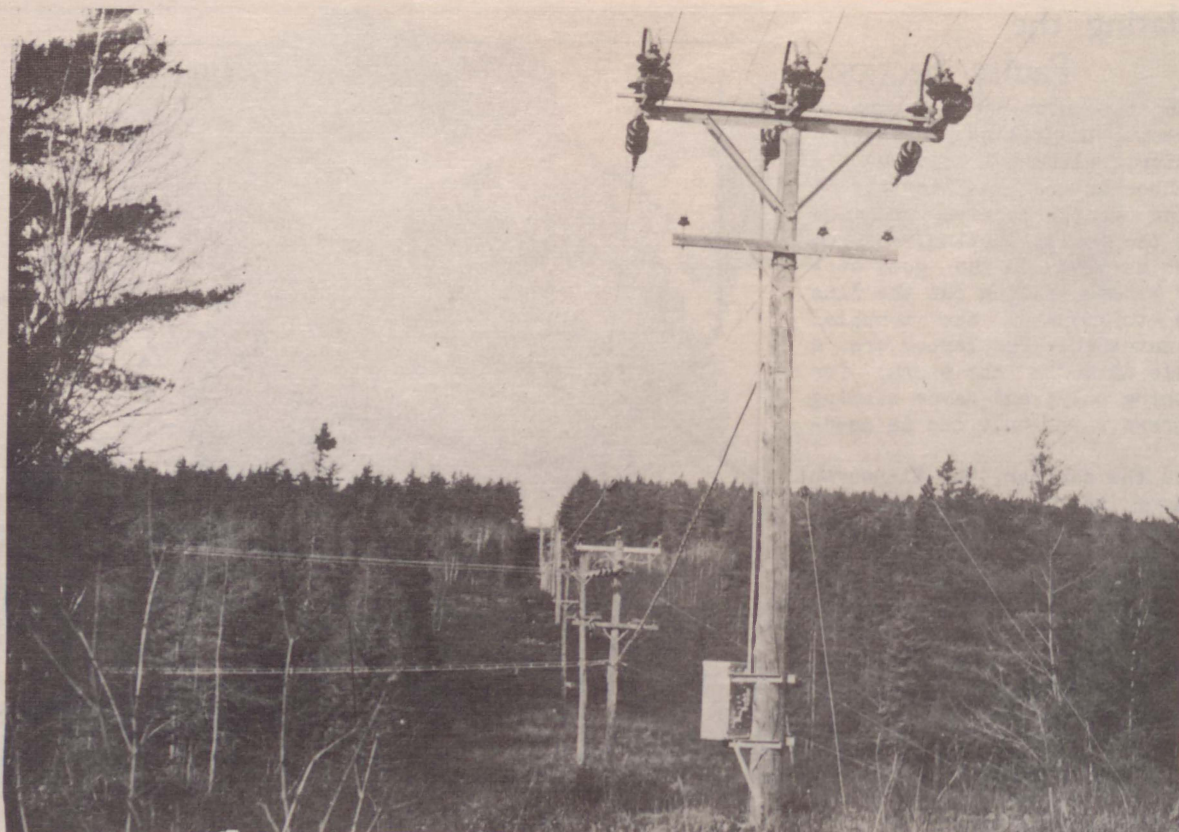
The system operates over the 33 KV power conductors at a carrier frequency of 52 kilocycles. Due to the superior strength of these conductors, the system can continue to operate thru a storm that would break down an ordinary telephone line.

The Hurricane Test

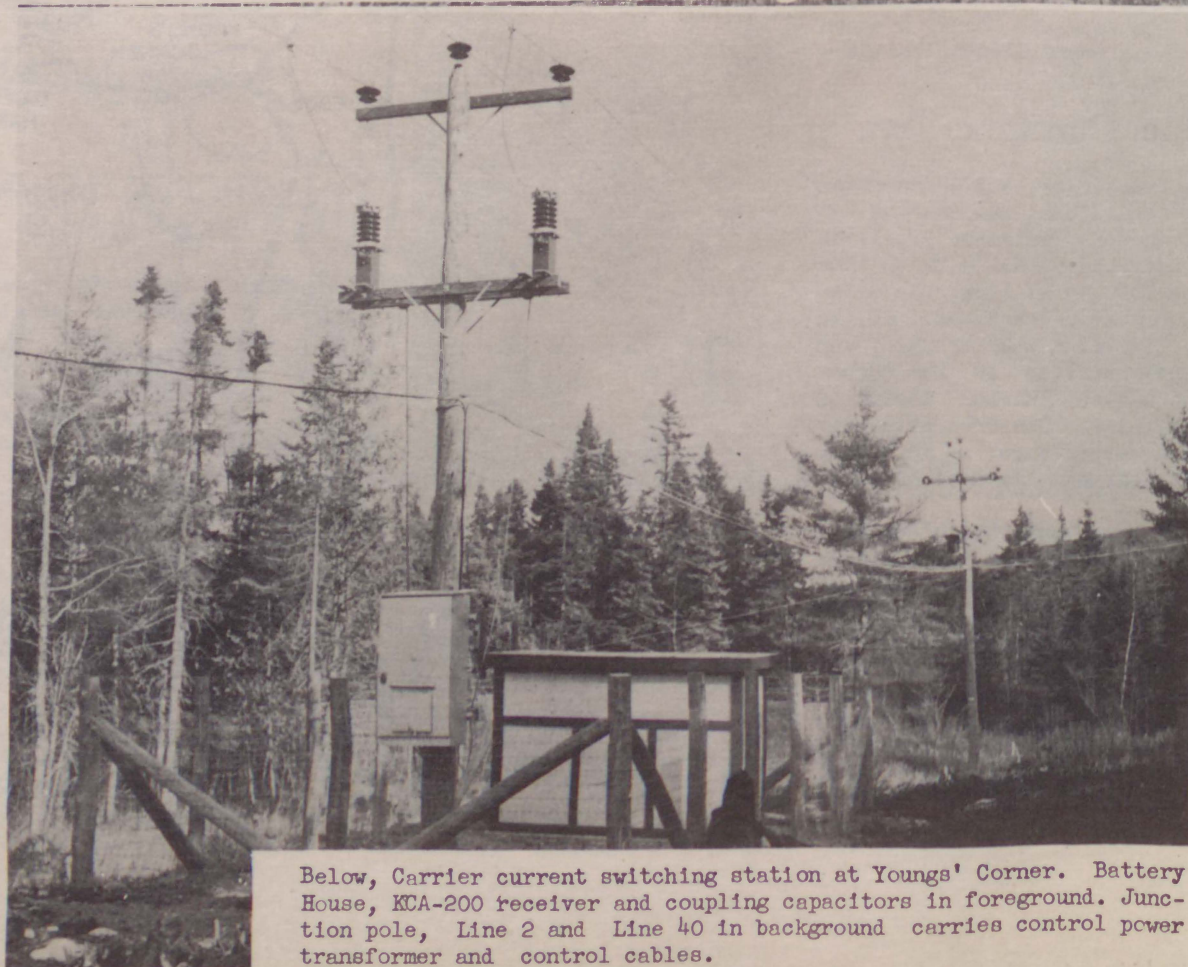
Our first real test under emergency conditions came during the hurricane of September 21, 1938. Then, at 7:56 P. M., with a tree across the 33 KV line, the Ellsworth operator sectionalized the line, isolated the trouble, and restored service to Bar Harbor and Southwest Harbor inside of four minutes. Compared with our previous experience of $1\frac{1}{2}$ hours, the improvement is most gratifying.

There have been "bugs" to work out of the equipment, as might be expected in the pioneering of any relatively new application, it being the first of its kind in Maine and the second in New England. It is now working satisfactorily, and it is certainly faster than the "Hunt" system of locating line trouble.





At top, Section Switch #206 at Youngs' Corner showing housing containing Type MR-5 motor-operating mechanism. Country in background is typical of 2½ mile Von Gartner Cut.



Below, Carrier current switching station at Youngs' Corner. Battery House, KCA-200 receiver and coupling capacitors in foreground. Junction pole, Line 2 and Line 40 in background carries control power transformer and control cables.

Bangor Hydro-Electric Company

Engineering Department Organization

Chief Engineer Paul F. Kruse

Came with the Company in July, 1936. A native of Buffalo, N. Y. He graduated in civil engineering from the University of Vermont in 1913. His 27 years of professional experience have included 6½ years with power companies at Niagara Falls and 12 years with Sanderson and Porter, Consulting Engineers of New York City, principally on the design and construction of hydro-electric power

developments, and operation of electric utilities. Two years of private practise included three engineering reports to private companies on certain features of the power plant installations at Boulder Dam. Just prior to coming with this Company, he was Chief Civilian Engineer on the Passamaquoddy Tidal Power Project at Eastport, Maine.

Electrical Engineer Harold W. Coffin

Electrical design and supervision of installations of electrical apparatus. Service and Rate problems.

A native of Portland, Maine, graduated in Electrical Engineering from the University of Maine, in 1916, and received his professional degree of Electrical Engineer in 1922. He served in the U. S. Army during the World War, 1917-19, including seven months overseas service as 2nd Lieut., 72d Artillery, C. A. C. He is now commissioned Captain, Coast Artillery Reserve and assigned to 542d Regiment Anti-Aircraft Artillery. He was employed as electrician in the maintenance department, and relay engineer in the Cumberland County Power and Light Co., Portland, Maine, in 1916. He was also employed during 1919-20 as assistant engineer and resident engineer on the construction of the Bar Mills hydro-electric plant for the same company. He has served as electrical engineer for the Maine Public Utilities Commission, 1920-22, on service investigations, safety inspection and valuations. He has been with the Bangor Hydro-Electric Company since 1922, successively as assistant engineer, operating engineer, planning engineer, and electrical engineer, which post he now holds.

Hydraulic Engineer Elwood W. Jennison

Hydraulic Investigations, detail structural design, field surveys, supervision of construction.

A native of Bangor, graduated in Mechanical Engineering from the University of Maine in 1913. During the first three years of his experience, he was associated with the Westinghouse Machine Co. and also served as Instructor in Mechanical Engineering at the University of Maine. He first came with the Bangor Hydro-Electric Company in 1916 and with the exception of about one year, 1918 to 1919, during which he held an engineering position at the Navy Yard in Portsmouth, N. H. he has been with this Company since that time. He has served in various positions of responsibility in both the Railway and Light and Power Divisions of the Company.

Operating Engineer Ernest W. Brown

System operation, maintenance of generating stations and substations.

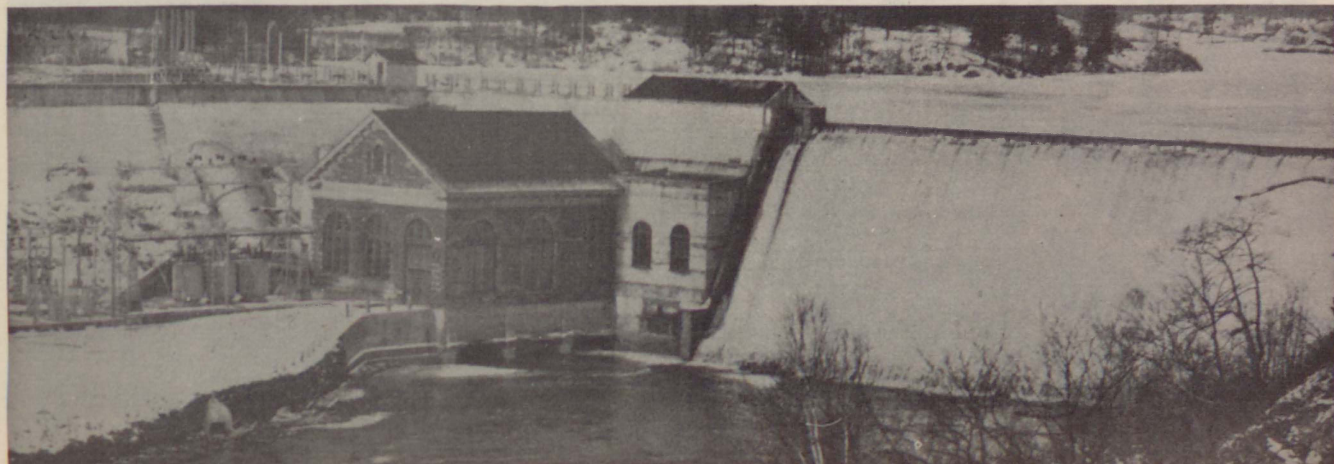
Came with the Bangor Hydro in September, 1938, assuming the duties of Operating Engineer at this time. From 1918 to 1928 Mr. Brown was General Superintendent of the Maine and New Brunswick Power Company and the Gould Electric Company at Presque Isle, Me. From 1898 to 1918, Mr. Brown was employed by the General Electric Company taking what was known then as the General Electric Testing Course. Six years were spent in the testing departments of the Lynn and Schenectady Works after which he was transferred to the Boston Office, spending 14 years on the road covering the New England states as an Electrical Expert. His engineering education was obtained from the International Correspondence School.

Field Engineer Kenneth S. Cosseboom

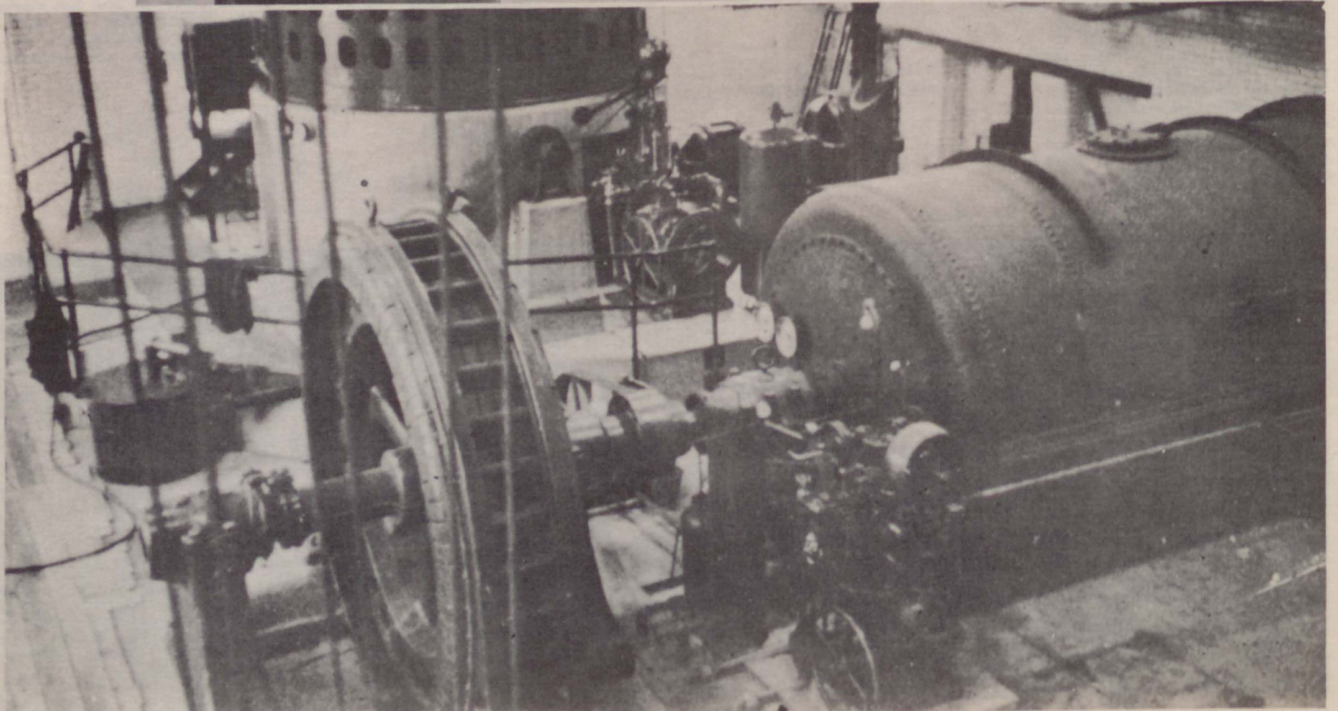
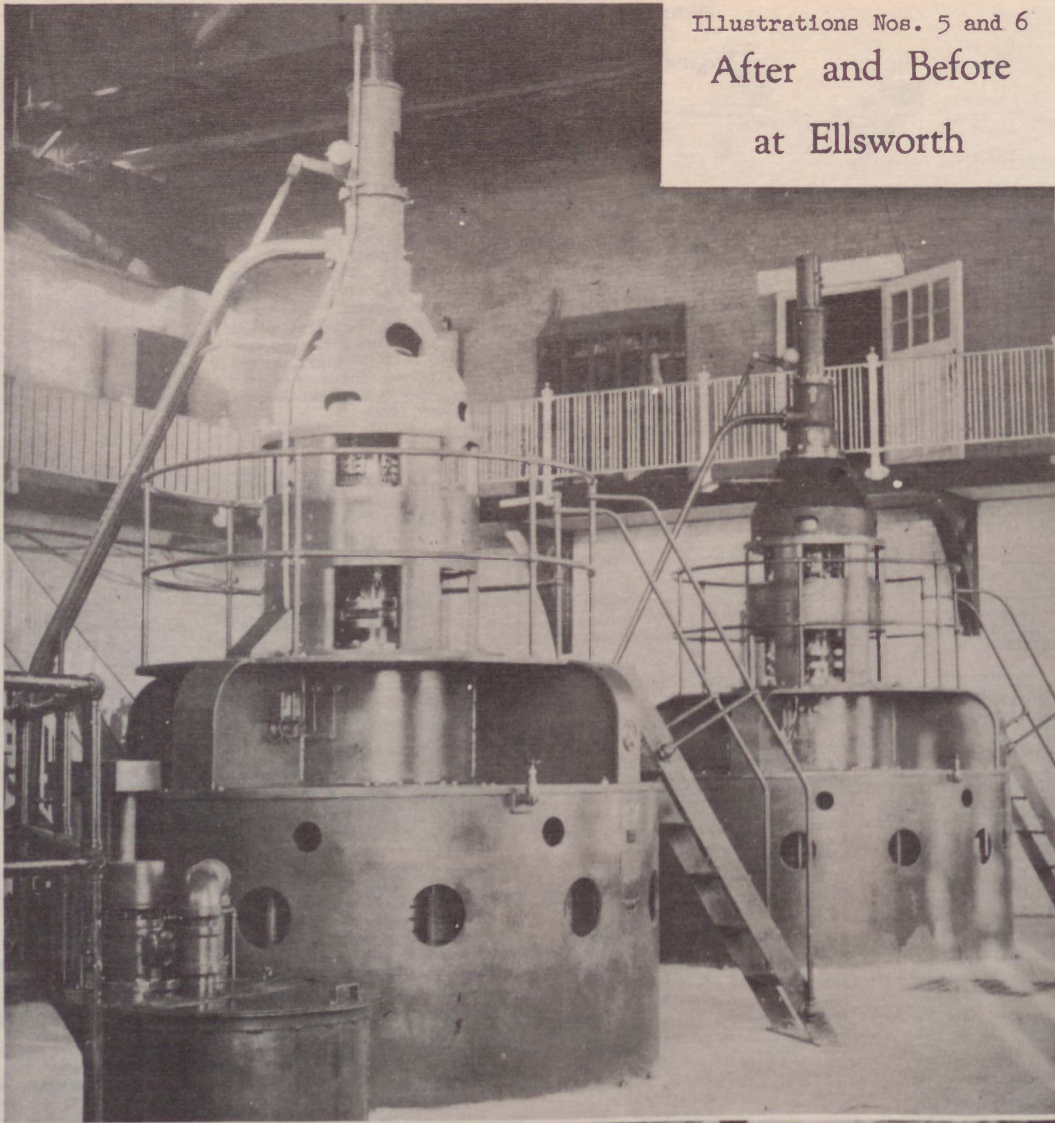
Design, construction, operation and maintenance of transmission and distribution lines.

Became a member of our organization when we acquired the Washington County Light and Power Co. at Machias, September 11, 1922. He is an I. C. S. graduate in Electrical Engineering, with previous experience on inside wiring. Mr. Cosseboom served four years with the Canadian Expeditionary Forces in the World War, rising from the ranks to a Lieutenant's Commission. From Machias he was promoted to the Managership of the Old Town Division. When later the Bangor Division was created and Old Town made a district of that division, Cosseboom was promoted to Manager of the Bangor Division. Owing to his excellent record as a line builder, he was transferred to the office of Field Engineer when Mr. Haskell became Vice President, and in that capacity he now has charge of the construction and reconstruction of the Company's overhead transmission and distribution lines.

Personal sketches of the other members of the main office engineering staff accompany the photographs on pages 25, 27, 29 and 31.



Illustrations Nos. 5 and 6
After and Before
at Ellsworth





Leonard R. Hunt

STRUCTURAL DRAFTSMAN, received his training in Civil Engineering at the University of Maine, having completed his work there in 1935. Since that time he has held engineering positions at Passamaquoddy Tidal Power Project at Eastport, Maine, and with the United States Engineers at Boston Mass. He came with this Company in January 1938, to assist in the design and construction of the new plant at Veazie and the two new units at Ellsworth. Since the completion of these jobs, he has been assisting in general office and field engineering work of the department.

Harvard G. Young

CONSTRUCTION ENGINEER AND STRUCTURAL DRAFTSMAN, a native of Surry, Maine, graduated from the University of Maine in Mechanical Engineering in 1923. His engineering experience has included four years with the State Highway Commission and engineering positions on the Passamaquoddy Tidal Power Project at Eastport and for the United States Department of Agriculture. He came with this Company in September, 1937, to assist on the design and construction of the new plant at Veazie and the two new units at Ellsworth. After several months on detail design work, he served as Resident Engineer on the construction of the new Veazie Plant. Since completion of that work he has served as Chief-of-Party on field surveys and assisted in general office engineering work of the department.



Ira Dole

STRUCTURAL DRAFTSMAN, graduated in Civil Engineering from the University of Maine in 1936. After two years of work with the Bridge Division in the Engineering Department of the State Highway Commission, he came with this Company in January, 1938. After several months work on detail design work in connection with the new Veazie Plant and the two new units at Ellsworth, he served as engineer on construction of the new plant at Veazie. For the past few months, Ira has been assisting the Electrical Engineering Department in the final preparation of record drawings and general electrical maintenance work.



Commercial Dept.

Wynona Boober

1939 was a good year for the electrical appliance business. This department finished the year with sales of the three major appliances as follows:

- 350 Ranges
- 646 Refrigerators
- 173 Water Heaters

which is an increase of 124 units over 1938.

1940 promises to be a still better year, and the Commercial Department is planning one of the biggest advertising and promotional campaigns of the Company, and are offering to customers greater values in all products.

The assistance of all employees to encourage their neighbors and friends to "live electrically" will make our homes in Northeastern Maine a better place to live in, and will help our Company to show a successful 1940.

The Employee Tip Plan is again in effect and the compensation for tips turned in which result in sales is the same as in 1939:

- Refrigerators \$1.00
- Ranges 3.00
- Water Heaters 3.00

In 1939 \$684.00 was earned by employees in "tip" money, and we hope that still more employees will take advantage of this plan during the coming year.

Archie Foss of Millinocket Finished in First Place Among Salesmen for 1939.

Our Millinocket salesman, Archie Foss, sold \$24,433.15 worth of merchandise during the year 1939, which places him as "tops" among the salesmen for the year. John Parker of the Machias-Harrington division was second with \$22,401.60 and the next three positions are held by Sam Frye of Bar Harbor, Harvey Hanscom of Lincoln, and Shirley Carter of Ellsworth. Jim Mutty of Bangor was only \$200. behind Carter for fifth place, and tells us that for 1940 he will be among the first five.



November-December Appliance Campaign

Store Managers, Salesmen and Store Clerks Win Extra Sale Promotion Money in Closing Out the Decade of the '30's.

Each year shows greater general acceptance and use of Reddy Kilowatt, our electrical servant, and his duties now are the life blood of our industries, recreational activities and the home - and new demands are now common every-day events for Reddy with ever an unlimited future.

The Hydro Stores rounded out the 1930's with \$273,982.51 appliance sales volume for 1939. The average sales volume for the past ten years was \$263,984.00 per year or over two and one-half millions, or over \$100.00 per meter domestic customer.

November - December "Round-up" Campaign saw new faces in the prize money and we are certainly pleased to have "Down East" right in there in first place. Prize money was based on greater increase in business over the same period of 1938.

Manager's Prizes

Manager	Store	% Increase
Cushing	Harrington	45%
Tracey	Bangor	18%
Austin	Bar Harbor	9%
Gardner	Ellsworth	7%

Although five prize positions were offered, only the above stores showed business increases.

Salesmen were offered two ways of earning extra sales money - One in the form of a "kitty" set up on \$2.00 for every Range and Water Heater sale with five top unit salesmen taking prizes. The other was an extra 3% commission on refrigerator sales after three sales were made.

Range and Water Heater "Kitty" Winners:

Salesman	Store	Unit Sales
Mutty	Bangor	9
Mahon	Bangor	7
Foss	Millinocket	6
Carter	Ellsworth	5
Parker	Mach-Harr.	4

Refrigerator Retroactive Commission Winners were:

Salesman	Store	Unit Sales
Foss	Millinocket	14
Parker	Mach.-Harr.	8
Frye	Bar Harbor	7
Mahon	Bangor	6
Carter	Ellsworth	5
Chadeayne	Bangor	5
Mutty	Bangor	3
Hanscom	Lincoln	3

Store clerks were paid extra earnings amounting to 3% of small appliance sales volume. The standing and store commission earnings were as follows:

Store	Sales	Commissions
Bangor	\$1908.66	\$57.26
Millinocket	791.29	23.74
Orono	741.45	22.24
Lincoln	356.44	10.69
Old Town	347.36	10.42
Machias	272.92	8.19
Ellsworth	270.76	8.12
Bar Harbor	238.89	7.17
Harrington	50.17	1.51
Eastport	31.43	.94

1940 ushers in without a break and we find ourselves in the Washer-Ironer Campaign and with a resolve to make 1940 an outstanding Electrical Appliance Sales Year.

Harrington

Theolyn Stanley

CONGRATULATIONS! To Mrs. Lowell Vose who won a prize on the essay "Christmas Comes but Once a Year", which was printed in the December issue of the Hydro News.

Mr. Cushing, Manager, attended the General Electric Merchandise Display which was held at the Penobscot Exchange Hotel in Bangor, Tuesday, January 16th. He reports a very fine display of 1930 Electrical Appliances.

Mr. Cosseboom and Mr. Harper of the Bangor Office and Mr. Milton Vose of Landers, Frary and Clark were recent callers at our store.

Dickie Vose, son of Lowell Vose meter reader, fell on the ice while skating recently and broke his leg. Dickie doesn't like the idea of being kept in a cast, but it won't be long now Dickie, and we all wish you a speedy recovery Friends and acquaintances of Mr. Silas Gibson, Proprietor of the Harrington House will be very sorry to learn that he is in the hospital, seriously ill.

Old Man Winter has made an extended visit here in West Washington County - it has been from 10 to 20 degrees below zero every morning, for the past few weeks, and on January 6th it was so cold Mr. Gardner, Ellsworth, was unable to supply the County with electricity due to it freezing on the wires.

The service crew have been very busy the past few days running new services and delivering washers.



Floyd E. Hudson

ASS'T. ELECTRICAL ENGINEER, a native of Gardiner, Maine, received his technical education at Wentworth Institute, Boston, Mass. having graduated in 1924. After one year with New York Power and Light Corp. at Amsterdam, N. Y., he was with the Westinghouse Electric and Manufacturing Company at East Pittsburgh, Pa., for three years in their testing and switchgear and control department. Before coming to Bangor, he also held engineering positions with the New England Public Service Company, and the Montreal Light, Heat and Power Company. He came with this Company in 1929, since which time he has held various positions of responsibility in the Electrical Engineering Department. In 1936, he was appointed Assistant Electrical Engineer. Floyd has also become our rate expert and devotes a considerable time to this field.

Ralph E. Drinkwater

ASSISTANT ENGINEER, a native of Veazie, Maine, graduated from Bangor High School and attended the University of Maine one year. His first engineering experience was obtained at the Eastern Mfg. Company, where he worked in various departments, including the Machine Shop, Drafting Room, Mechanical Office, and Research Department. He later held a position as Draftsman for the Merrimac Chemical Company in Everett, Mass. He first came to work for the Bangor Hydro-Electric Company in February, 1929, in the drafting room under Mr. Coffin. With the exception of about two years, during part of which time he worked for the U. S. Geodetic Survey, he has been with this Company since that time. Ralph is now Engineering Office Assistant to Mr. Jennison.



Gerald F. Hart

ELECTRICAL DRAFTSMAN, graduated in Electrical Engineering from the University of Maine in June, 1938, at which time he came with this Company. The first three months, Gerald worked in the electricians crew at Ellsworth on the installation of the first new unit. He was then brought into the office and since that time he has assisted Mr. Coffin and Mr. Hudson on the electrical design work of the new station at Veazie and the new units at Ellsworth.

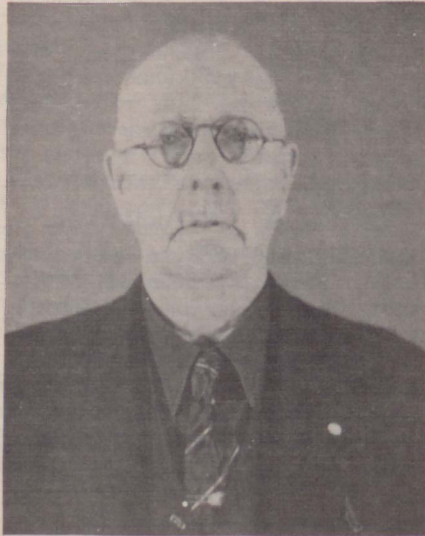


Railway Dept.

Wilbur Watson

January, and here we go for this month's gossip about the Railway Department.

First I would like to thank Mr. Hayes of the White and Hayes Co. for the cigars that were given to the car operators for Christmas. It's gifts like these that make life worth living, and I am sure that everyone in this department joins me in saying "Thank you Mr. Hayes".



No lost time accidents in the Railway Department For 1939. "Hurrah" for our side. Let's all keep up the good work boys.

Operator Plourde spent the Xmas holiday in Waterville. Larry Hodgman spent the day with his wife, who is ill in a hospital at Fairfield. Yours truly spent the Holiday at Lincoln, visiting friends. I wanted to look up Harry Allen while there, but lacked the time. By the way Allen, How is the ice fishing up there? Hope we can get together for a fishing trip next spring.

At last we have the details of how that fued started between Larry Hodgman and the Mayor of Veazie. At least here is how it was told to me.

It seems that Hodgman was telling the Mayor that he was going to have some teeth out, whereupon the Mayor said "It's a burning shame" and passed Hodgman a cigar. Hodgman thought that the Mayor was speaking about the teeth, but after smoking the "El Ropo" he realized that the Mayor was referring to the cigar. I quote Hodgman as saying "I don't bury my dead".

The Christmas spirit caught up with Edgar Bille this year. Bille had a small pine cone that was painted silver color tied on his money changer. Bille said that it was to remember the Holidays.

I wonder if he will have a bunch of fire crackers tied to his changer on July 4th.

Here is the latest from Pop Godsoe's house. A large rat invaded Pop's pigeon pens. Pop declared war on the rat and it is said that the feathers flew; the hair flew; and pop flew. The last report was that the rat was still at large. "Hunter" "Fisherman" "Trapper" Ivory Bowden and "Whiz Bang" Currier were fishing recently at Pushaw Pond. While there they entertained a game warden on tea. Hope you aren't trying to bribe the Warden boys.

Of course you remember the letters to the Editor of the "News" from Donald Shaw of Springfield, Mass. I had the pleasure of Mr. Shaw's company on my car on Nov. 11th last. Mr. Shaw informed me that our cars and equipment were the best that he had seen in his travels.

Speaking of street cars, - following are a few "Nick Names" that some of the boys have given to the cars: Car #40 - "The cream

of the Crop"; Car #38 "Pride of the Mohawk"; car #82 "The Cracker Box"; car #6 "The Pullman" and of course a small car in Brewer is known as "Bouncing Betty".

Say you guys how about passing on your news about the Railway Department to me? That is what this paper is for. We would also like to have more pictures.

Well folks, I guess that I've taken up enough space for this month, so until next month I remain, sincerely yours, Bill Watson, who believes that the fellow who is always looking for something to turn up is usually the fellow who gets turn down.

Fred Street had a hair raising adventure the other day.

Fred needed a hair cut, and as there was a barber who called at a filling station near his home, Fred decided to let the barber do the job for him.

When the job was completed, the barber informed Fred that the price was One Dollar (\$1.00). Fred did plenty of cutting up about that. Said that such prices were "Hairway" robbery. I asked Fred if the barber was a big strapping fellow and he said "No, he is just a little shaver". Now that it's all over, Fred says that "He would "lather" not hear any more about it.

Bar Harbor

Barbara Keene

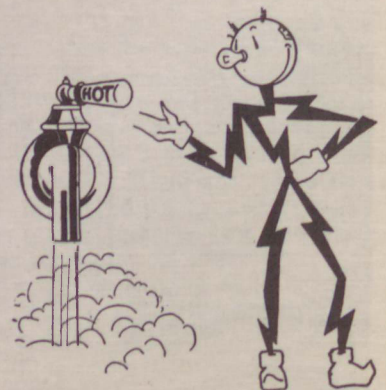
Everett Salisbury

Mr. Milton Vose of Landers, Frary and Clark was in our office recently.

Mrs. Marguerite Sprague, who has been in our office since September, completed her duties the first of January.

Mr. Kenneth Cosseboom was a recent visitor at the Bar Harbor substation.

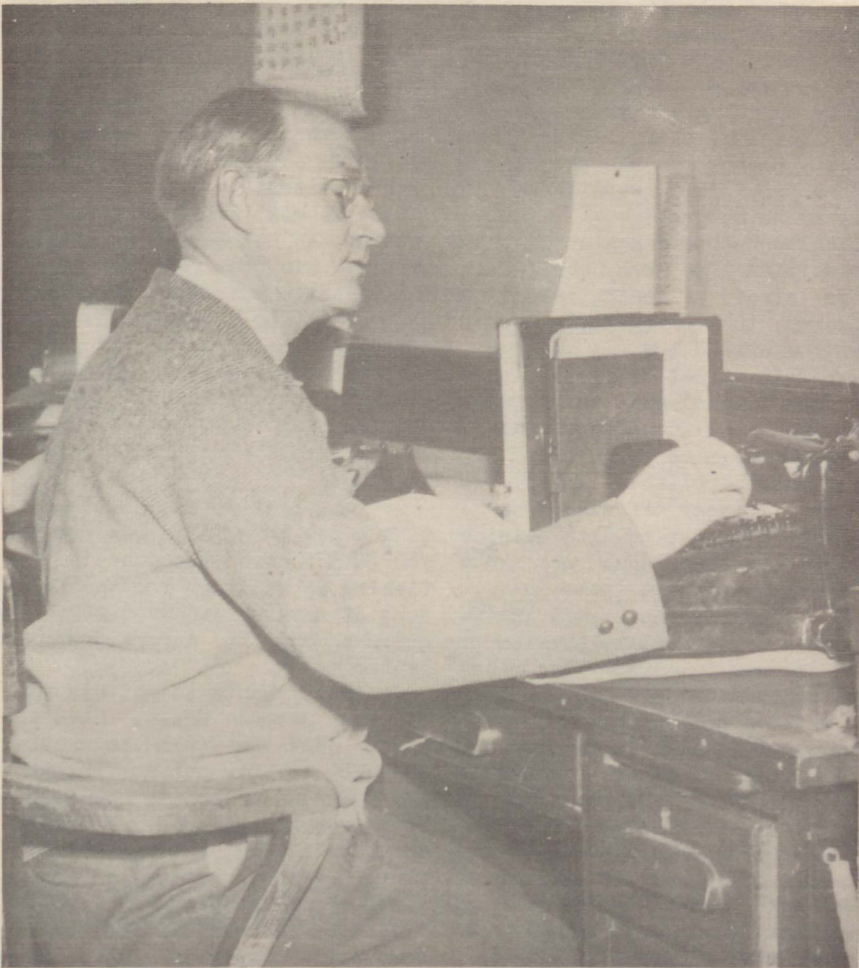
Mr. Fred Grindle was in the office recently and seems to be coming along favorably.



We have lost one of our valuable employees in the Railway Dept. William F. Kincaid who retired in December. Mr. Kincaid who is better known as "Bill" came to work for this Company September 14th, 1907, and has been a car operator for thirty-two years.

A man well liked by the public, agreeable and dependable. We are going to miss you "Bill". Drop around once in a while and see us

Folks if you are interested in corn-poppers, see Harold Handy. Mr. Handy carries a full line of poppers, new and used. He also has a full line of cake recipes. Remember Handy's slogan. "Look over my goods before you buy else where". I quote one caller at Handy's shop who says, "I looked at your goods and bought elsewhere".



Frederic T. Clark

ENGINEERING ASSISTANT born at 96 Fourth Street, Bangor, attended Bangor schools and the Hampden Academy. Fred came to work with the Line Department of this Company in October, 1915. He worked in the various departments, including spare operator at the various power stations until 1923 when he became Superintendent of the Machias Division. During the years from 1924 to 1929, he was Superintendent of the Lincoln Division, and the Millinocket Division. In 1929, he was transferred to the Field Engineering Department where his duties consist of making all rural line estimates, keeping a unit cost system, directing the work of the Bangor Service crew. All service interruption complaints come in to him, and during thunder showers or storms that cause interruptions, regardless of the time of day, he is always on the job. His even disposition and prompt attention to calls has made a friend of many of our customers who were experiencing power troubles.

William E. Hartery



SECRETARY TO CHIEF ENGINEER, came with the Company in 1935 as Stenographer in the General Files under the supervision of Mr. Mann. In the fall of 1936, he came to the Engineering Department as Secretary to Mr. Kruse, Chief Engineer, and general stenographer for the department. In addition to these duties, he assists in the plotting of operating charts, and other office work of the department.

Activities of Engineering Department outside of

Main Office

Further descriptions of the personnel and activities of the Engineering Department outside the main office will be given in subsequent issues of the Bangor Hydro News.

Main Street

Blabber

Herbert Hammons

Of course you've all heard of the bride who complained that her electric range gave off a terrible odor when she baked a chicken, and it became a serviceman's problem to chase down the fact that normally a chicken is drawn before cooking. But it remained for our own Mr. Arnold to show order-taker Ness, and customer, a dead mouse will give off unpleasant odors even in our nearly human electric ranges.

Sherlock Holmes has been dismissed and another mystery has been solved. Miss Boober is happy, we are happy and once again two pottery, red and white poker dot house door stops have been returned, and grace the secretary's files. Motto "Never look a gift horse in the mouth", I guess.

Ashmore's step is a little more quick, and his smile a little broader now that his service car has a new band-wagon bright coat of paint. John says if this paint job had been done earlier, Thompson would have come in second on service billings.

We have seen lot of artists at Main Street, but here's a new one on us - Mahon tops as a sigh and groan specialist. From the elevator door to his desk and for an hour more the room resounds with his soul-filled sigh and groans. We are not asking for any competition.

Winter of course is the time for hardy talk and probably skiing is listed here. At least we have two beautiful versed skitalkers who can talk the best skiing talk you ever heard. But Boober and Stephens as yet have to try on a pair of the "winged woods". Yet we know that they will find even this famous Swedish sport has its ups and downs.

Ray Arnold has become a 50-50 man and now has two dinner hours to handle. But of course this catch as catch can of delivery service is only a game of checkers.

We are putting through an order for a pair of stairs leading to the roof from the third floor at Main Street with thought of letting our self-style yodeliers go up on the roof when they feel the urge coming on - and than we are going to ask the Governor to de-

clare an "open season" on song birds of the air.

Thompson takes top dough in the recent service sales pay-off and now is sporting a new sport sweater. However, we find everything is not serene in the choice of colors and Bill should not be allowed to shop alone.

Charlie Mansur makes an on-the-dot mailman for Main Street but he is afraid of being called a mail man, that being just another name for errand boy.

Our Main Street store has had its face washed and things once more are back in their places. It seems to pick one up to get back major appliance sales. We started the year off with a Washer Campaign, but to date outside stores are the ones who know where the washer business is.

Mr. Young reports a very interesting and instructive preview of what is new in 1940 Electrical Appliances, on his return from New Britain and Bridgeport. The Bridgeport showing with over 300 Public Utility Sales Executives was represented by every state in the Union.

Mr. Wray has just concluded a big sale of Commercial Bake Oven repairs to State Hospital and is now planning to say good-by to two men for at least a week.

Who said January wasn't fly time? George Baughman who ties some pretty excellent "finny lures" is now getting ready for his spring orders. Suggest that you look at his "killers" when you find the ice leaving your favorite fishing haunts.

Appliance Service Schools are now is vogue and we're off to another year of better service and greater customer satisfaction with Electric Appliance owners.

Typewriters and adding machines find January the month that gives hot bearings in the Commercial Department at Main Street and we the fellows with sensitive ears and lovers of quiet, find ourselves chewing pencils, scratching heads and wondering, Oh how long?

Mrs. Jones who recently joined the Commercial Department sales force, replaces Mrs. Barbara Stover Van De Bogert as our Home Economist. Mrs. Van De Bogert is now the neat little housewife at 413 Hammond Street in Bangor. She is another woman that convinced herself that the ALL ELECTRIC KITCHEN is planned for economics. Barbara is pretty happy with a G. E. Refrigerator, Universal

Range, Electric Water Heater, and new steel cabinets.

Willie Chadeayne has got that new hat and what does it do but bring on a beaut of a head cold. All of which proves again some people's medicine can be someone else's poison.

Ruth Thomas still believes in putting the automobile on stilts, letting air out of the tires, taking battery down to the repair shop, putting blankets over entire machine, draining off radiator, locking the garage doors and starting to walk again. Boy just getting that car put up sounds like too much work - but, Oh that walking!!

Grover, that Jordan boy is getting a new twinkle in his eye and you don't have to guess - ice fishing is waiting for the hardy sons of nature, and Grover didn't grow up out in Aurora just to handle money.

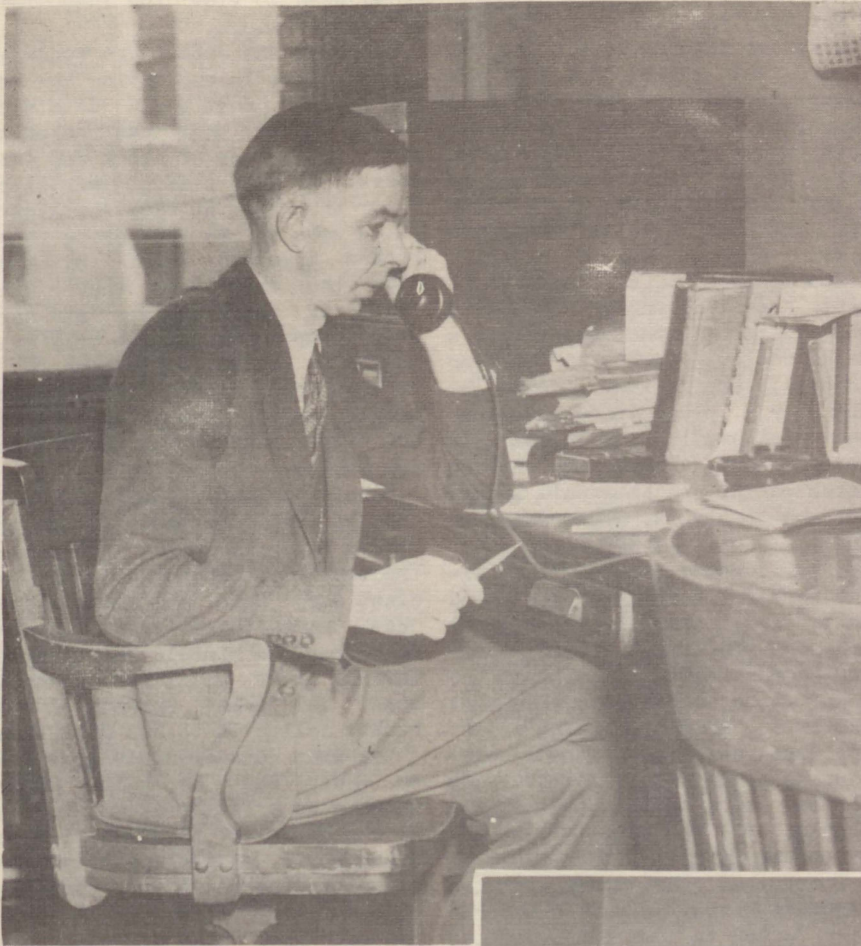
Jim Muttu wants to get his feet off the ground again. Says he might just as well be showing them how to fly out at the Airport Sundays, as to pound the Ford over the ground. Something about re-newing a license - Students, Vernon Castle is in our Jim's scrap book.

Walter Maddocks is out to win some prize money in 1940. Says he has tried hard for the past few years to keep his volume down so his "prize quotas" would be low and then what do they do but throw out quotas and put everyone on an even basis. Now we have the recommended Bangor Store set-up as a protectorate of the outside stores, with its own campaigns, special trade-ins, etc. Maybe we've got something here but still don't know about special prize money.

So another month passes. Well once again we've bared your feelings, and hope once more you hit the ceilings, but if I'm to be your News Source, and you want love in its course, read between the lines, or be behind times.

Listen Frank

We notice in the Milford-Old Town items that there have been calls for extra copies of the Christmas issue of the Hydro News. There are some still on hand at the "publishers". Just send in the names of anyone that wants a copy and we will fill orders as long as the surplus stock lasts.

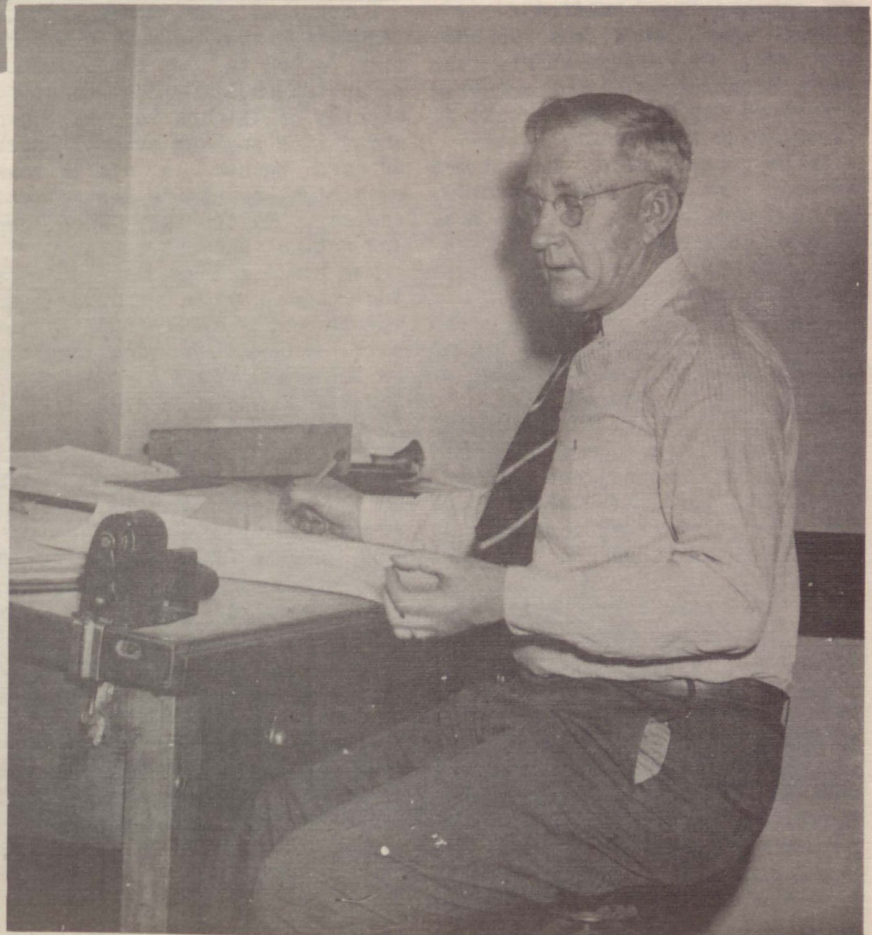


Harvard E. Moor

ASSISTANT FIELD ENGINEER, was born at Ellsworth, Maine. He attended Ellsworth schools; graduated from Colby in 1918 and from Massachusetts Institute of Technology in 1922. He came to work with the Engineering Department of our Company August 7, 1922, and was made Assistant Field Engineer in 1928. Among Harvard's many duties are the making of all estimates pertaining to line construction (with the exception of rural lines), joint line coordination, joint line records and billing memos, distribution layouts including the drawing of plans for lines and aerial substations.

George W. Tyler

ENGINEERING ASSISTANT was born at East Corinth and attended the East Corinth school, including the East Corinth Academy. In April, 1914, he came to this Company as a Linemen, having worked for two years as a lineman with the Telephone Company. George was made Foreman of the Bangor Line Crew in 1918, and Assistant Superintendent of the Bangor Division in 1921. In 1928, he was transferred to the Field Engineering Department where he looks after all pole inspections, staking of lines, and assists with the coordination of joint line work. In times of heavy storms, we always know where to look for George - he will be at the Service Building to lend his help in restoring service.



Lincoln Listener

Harry Allen

Thursday evening, December 11th our storeroom was the scene of a most enjoyable supper and social. At nine o'clock we sat down to a most delicious oyster stew imaginable, prepared by none other than Mr. Vaughn Davis, local line boss. I had heard that he was famed for such stews, but seeing and tasting is believing, and I'm sure all who were present agree with me. He had a few of the women guests worried for awhile when he insisted that a cake of Ivory soap had very mysteriously disappeared from the cooking table.

The ladies brought cake, cookies, coffee, milk, sugar etc. to round out the meal. After thoroughly stuffing ourselves until we were uncomfortable to the nth degree, your Scribe got out his movie projector and treated them with action shots of our local outing held last summer. These had never been seen before and judging from the laughter some few did not realize how the camera catches them unawares.

Next came cards and Chinese Checkers. At eleven-thirty the party broke up, everyone agreeing that more of the same should be in order at some future date.

Those present were: Mr. and Mrs. Haskell, Mr. and Mrs. Hanscom, Mr. and Mrs. Davis, Mr. and Mrs. Jipson, Mr. and Mrs. MacIntyre, Mr. and Mrs. Allen, Mrs. Fiske and Miss Drew.

Eighteen days of below Zero temperature of too much of a good thing. We hope that a change of readings is in order.

Our new Ford truck is proving out nicely. At long last the speedometer has reached the 500 mile mark, and the driver hopes to make Mattawamkeag in something less than an hour on the next trip.

The line crew helped Millinocket two or three days this month.

Messrs. Cosseboom, Hammons, Vose, Coffin, Harper, Hudson, were among those who called on us this month.

Carpenters Davis and Allen are busy building shelves and cupboards in every available space in our stockroom. As soon as the chips and nails cease to fly our merchandise will all be on one floor, making it easier for all

concerned.

Fridays, the line crew go over the street lights, replacing all burned out bulbs. But you can always depend upon some kind soul to report a light out and insist that it has been out for two or three weeks! Yet the customer is always right. Ah me, this human race certainly has its peculiarities.

The manager of a local department store recently discovered what he thought was sweat in his salad cooler. He looked it over carefully and decided it must be that, or a plugged drain. After due consideration he called his helpers, and instructed them to fetch pails, and bail said liquid out and empty it. This was done and all went well until the counter girl discovered that the salads were not keeping properly and that large quantities of frost and ice were forming in the cooling compartment. Called to the scene, your scribe soon saw that the brine, made of calcium chloride, used as a cooling and hold-over agent was quite necessary to the operation of the machine, and should not be bailed out and thrown away.

Sorry that the night pictures taken of Harvey Hanscom's decoration failed to come out. Without a doubt he had the most beautiful display of lights in this town, and I dare say any other. Scores of cars turned in his driveway each night to admire his actistic display. By the way his trees are natural and not set out.

Our bowling team is fast shaping into a crack outfit. We are meeting all comers and to date have been beaten twice and that by the same team. At the end of the season we will give you the record and pinfall. It is quite mystifying that Davis bowls a 128 in a practice session and only an 88 in a match! Must be that the crown gets in his hair.

Ye Scribe flew all over the city of Bangor one Sunday this month, as guest of the Maine Airways Inc. Even looked directly down into Bill Wray's chimney and will say it should be cleaned. Hi, Punk!!!

We anxiously await the 1940 line of G. E. refrigerators. Some few customers are also desirous to view them.

Manager Haskell and Salesman Hanscom attended a sales meeting at Bangor on the 16th of this month. While there they were

privileged to view the 1940 line of refrigerators.

Sturgeon and Jipson are wondering if there is any device now on the market, that would detain a car or truck that has broken a pole, until one of them can get there. At this time of year with heavy trucking at its peak our poles seem to be suffering from broken arms and legs. By the time the crew gets there all signs of their driver and car have disappeared and the only evidence is tracks, a few potatoes, or cord wood stocks. Perhaps an electro-magnet installed on each and every pole would hold them for awhile.

Here's one for Ripley: On Dec. 6th, at 9:30 o'clock, our meter reader Billy MacIntyre was reading the meter in the house on the exact day, date and hour where just thirty-three years ago he was born. He himself had thought nothing of it until its present owner and great friend of the family called it to his attention.

Salesman Hanscom needs exercise so badly that he helps carry washers up a flight of stairs only to discover that it is the wrong style, color and size. We expect to tub and drag a combination range up three flights some day and have him discover that the customer only wanted a vacuum cleaner!

The cooking school held at So. Lincoln was well attended and a few inquiries have been received on ranges and refrigerators. No doubt some sales will be realized from it.

Laurence Cliff has purchased the Lincoln Fur Farm and will tear down and sell the buildings together with its equipment. Our meters there will be active again for a while at least. Nice big Kilvinator refrigeration plant about two years old is among the things to be sold.

Prize boner of the month: Vaughn Davis putting Prestone in his well to keep it from freezing!!

Lets all try as hard as the Editors are to make our Company Paper a newsy one. What with nearly all, if not all, departments now represented, we ought to be able to gather a page each for our "of", "by", and "for" Hydro News. Note that I am still listed as the Main Street scribe, but rather guess you all note a great improvement in that department's forthcomings.

We see by the papers that "Gone

with the Wind" is due to appear in Bangor early next month. Nothing new about that. The wind has been going by here for a solid month and a cold one at that!! Can't understand why it hasn't reached there yet.

Driving conditions are unusually bad in this neck of the woods. The roads are a glare of ice and it's a poor day that one doesn't see several trucks being assisted back into the road.

Wonder did Hammons get his camera repaired yet? If so, the bill will probably arrive in Lincoln.

Until we get more weather and less cold.

Christmas Party at Lincoln

Even tho we seem to be a month late, we present pictures of our Christmas party. Santa Claus did not fail us and arrived on time with a bag full of candy and popcorn, which he distributed before stripping the beautifully decorated tree which held wonderful gifts for each and every child. All had a most wonderful time including Manager Haskell who seemed younger than any. After ice cream and cake was served, Mrs. Harry Allen lead the little ones in singing Christmas Carols. Next came a peanut hunt, and other games. Although we can't recall names of those present, we are

able to give you their pictures. The group included little folks from Lincoln, Howland and Millinocket.



Eastport

H. J. Logan

Mr. Horace Logan and Harry Logan attended the Managers and Salesman meeting, held in Bangor January 16th.

The Linemen have just completed an extension in Edmunds, serving five new customers.

Clarence Cushing attended the First Aid Course at Quoddy Village, sponsored by the Red Cross. This course was attended by the employees of the local N. Y. A. and those who have taken first aid courses before.

A new group of boys arrived at Quoddy Village this week to take up training in different courses. This new group included five hundred boys from the New England States.

A series of horse-racing heats are being held each Sunday at Pembroke. These are on the quarter mile straightaway just off the Little Falls road. Many fans from Eastport attended the ones held on January 14th.

The local High School basketball team which holds an undefeated record this year, won over Calais Academy last Friday, Jan. 12th, with a score of 46-20.

William Harper called on us recently to check on radio trouble.

Mr. Herbert Hammons, Milton Vose, and Mr. Cosseboom called.



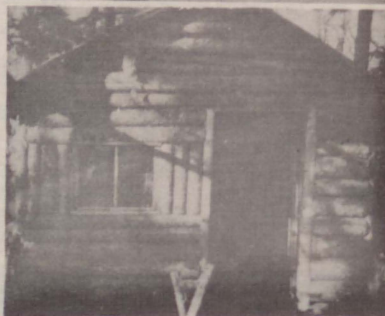
Along the Trap Line

Little does milady realize the work that is attached to that fur coat which she is wearing and father is still paying for. She has no way of knowing the trials and tribulations that the trapper has gone through in order to furnish the skins to adorn her back. For after all, it is the trapper who toils day in and day out thru all kinds of weather, tramping endless miles over hills, mountains, and ridges; following the shores of rivers, brooks and lakes, putting his cunning against that of the wild.

Many the trip around the line nets him nothing of value. He has to be content with what Dame Fortune throws his way. He may visit a hundred traps and find any number of absolutely worthless animals and even birds awaiting him. These non-paying denisons are easy to catch and as yet man has found no way to eliminate them. The most bothersome of the forest dwellers seem to be porcupines, rabbits and partridges.

Past Master in the Art

This Fall it has been my pleasure to spend a week with a past master in the art of trapping fur bearing animals. That trip, long to be remembered, was a most profitable one for me. I learned many, many interesting things about the habits of wild animals. Each and every one has his or her traits. In studying these traits and habits the cunning trapper has found a weakness that each one possesses and thus he is able to coax them into his waiting traps. It may be some special scent, prepared by himself, that tickles their nose and must be investigated, or it may be a likely looking spot in a woods road or trail which the trapper recognizes as well traveled path. He must arrange nature's settings to suit himself, yet leaving things so arranged as not to arouse the suspicions of the animal in question. With twigs, boughs, weeds, rotted wood and other things at hand, he hides the trap in such a manner that any animal traveling through must step in the exact spot. It is



Illustrations, reading down: #1, the author ready for the trail. note snowshoes, just in case. The pack basket holds three days' provisions and necessary extra wearing apparel, together with cooking and eating utensils. #2 The main camp from which the long tramp is started. Skunk skin hangs in shed. Camp is equipped with a battery radio which brings cheer and comfort into the wilderness. #3, Looking up the lower --- Lake from the dam. Our first night's camp is on the further shore at the foot of the mountain. Am told this lake is alive with pickerel. #4, This looked good after a twenty-two mile hike the first day. We were awakened early next morning by a big buck feeding directly in back of the camp.

By

Harry Allen

really a most interesting study to watch the loving care and preparation that goes with the setting of each trap.

Under full Pack

On Sunday morning November 12th I left Lincoln under full pack (snowshoes included, just in case) walked ten miles to my friend's camp. Arriving around noon, we feasted on a partridge dinner. After dinner I accompanied him over a short line of traps which netted one mink, one fox, one raccoon, two rabbits, a porcupine and a flying squirrel! He skins his catch on the scene rather than carry the carcass to camp. Returning to camp each skin is carefully scraped to remove all traces of flesh, then stretched on boards and allowed to dry.

All skins except those of a fox are stretched wrong side out. That is to say fur side in. The fox is allowed to remain fur side out.

After supper we busied ourselves making up our packs for a three-day hike. Each carried his own supply of rations which included, one quart of beans, eight potatoes, a bag of a prepared mixture (his invention) which requires only the addition of water to make a very nourishing form of bread, coffee, tea, sugar, salt pepper, knife, fork and spoon. cup and plate. We also carried raincoats, hatchet, flashlights, and frypan.

Bed time comes early in the wilderness so at seven-thirty we crawled into the bunk. Hardly had I closed my eyes when that unkind invention of man, the alarm clock, brought us to our feet at the unearthly hour of three o'clock.

After a hurried breakfast, we shouldered our packs and took the trail, aided by flash-lights, which proved to be the longest hike on the trip.

A docile Coon

The first few traps yielded nothing but just as daylight was showing in the far southeast, we came upon a coon held fast in jaws of steel. Never have I seen a more docile animal. He was hunched down in the trail, as

the nothing at all was the matter. He made no fuss nor struggle just peered at us with large coal black eye which seemed to plead "Please take this thing off of my leg, I'd like to run along:." Having my camera along I took his picture from a distance of one foot and had I used my head and a time exposure, I might have had a picture. A club soon quieted the beautiful animal, which only served to knock him unconscious, while my friend "smothered" his heart. This is done by holding the animal on his back and gripping the heart so that it cannot beat. Few trappers shoot their victims as it makes the skin bloody, and leaves a bad hole. In a few more minutes, the hide was off, rolled up and in my friend's pack, and we were off to the next trap.

Lady Luck turned her back for the rest of the day and we had to be content with several rabbits, porcupines, and squirrels. That night we camped on lower - - Lake, in a tiny log cabin situated in a beautiful grove of pine trees, overlooking the vast expanse of shimmering water. This day we had hiked a total of twenty-two miles, and boy, my legs felt it.

Some very thoughtful soul had burned all of the fuel so we had to work up some before we could eat. Soon a cheery fire was roaring in the oil drum stove and the odor of beans filled the tiny enclosure. Fate played a dirty trick at this point. The jar which the beans were in broke into a thousand pieces and we were forced to warm up the second jar, the contents of which disappeared in short order.

After filling our empty stomachs and still having an hour or so of daylight, we climbed - - Mountain, to inspect a couple of traps which proved fruitless. However, the view from this point was marvelous. The two - - Lakes lay at our feet, looking like twin mirrors reflecting the surrounding hills in their surfaces. Far as the eye could see, stretched woods, hills, lakes and rivers. No dust and train smoke, nothing but the purest of ozone. About this time a plane droned over on its way to Millinocket, giving us a feeling that we were not so far from civilization after all. Standing there absorbed in God's beautiful handiwork, we



Illustrations reading down: #1, A mink, small in size, but worth \$10.50 when skinned out and properly stretched. #2, The trapper prepares a trap for a mink. On our next visit to it we found one in it. #3, Looking up-stream from another dam. Here's where you will find us about June 15th, with a fly rod. #4, The second night's camp situated directly on the dam. Poor possibilities of keeping warm on a windy night. a windy night.

forgot tide and time until the evening star appeared and reminded us that it was two miles back to camp.

Mink, Weasel, Fox

Next morning we were off bright and early on a short leg of our trip. Luck seemed better this day. We found several mink, a weasel and a fox. All parted with their skins, and we made camp early after traveling twelve miles through a light snowstorm and a howling gale.

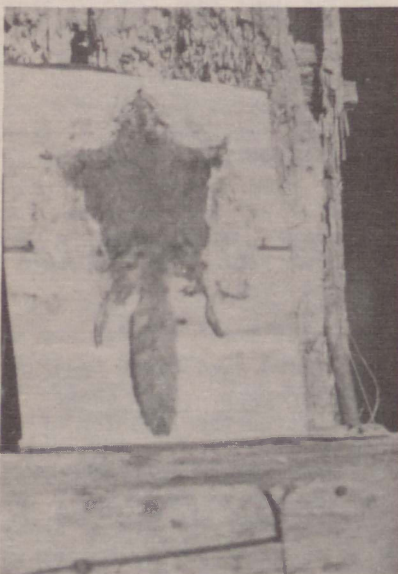
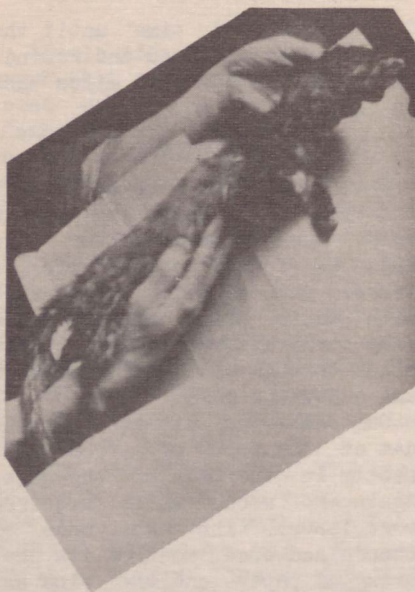
Our camp was situated on the dam at the foot of -- Pond, directly in the path of the gale. Again no wood, which required more labor. The camp made of boards had shed most of its covering of paper and the wind and snow whistled through it like water through the dam outside. Supper was early as we had no sign of a light. Leaving our clothes on and pulling down our earlappers we dived into a bunk having no mattress. If there were inner springs, they were under the pine boards. I got a good ribbing for heating four large rocks, which made a nice warm bedfellow. Was informed I could not take it.

The third and last day out dawned bright and clear. We headed out on the last leg of our trip.

The first trap yielded a woods pussy (skunk to you) and I was initiated into the art of creeping up on this smelly animal and socking him over the head with a small stick. Wouldn't believe it could be done, if I hadn't seen it with my own eyes. I can see him now, squatting beside that odious animal talking to it, while he coaxed in into a position for the kill. A quick snap of the wrist, a descending stick and Mr. John Skunk was through.

High on a hill we found what I wanted to see most of all. A vicious bobcat slinking behind a thicket in which he had become entangled during his fight for freedom from those dreaded jaws of steel. A fierce face containing a set of yellow eyes and long tusks greeted us. Here, held fast, stood that dreaded killer of the woods, a killer from which all wild things flee in terror.

Impossible to get a picture here, no light, thick brush, and a none too steady subject. I felt



no sorrow for this customer, and directed a bullet into his brain with pleasure. His hide is not worth much, but the bounty on him is a tidy sum.

Over a few more ridges, along the shores of streams we went our way and arrived back at the main camp just before dark. This day we had traveled eighteen miles, but had better walking than we did on the two previous days. The hides were scraped, stretched and hung up to dry.

104 Miles a Week

Next morning we started out again over the same trail. Two trips a week totaling one hundred and four miles! Figure it out, first day twenty-two miles, second day twelve miles and third day eighteen miles. Guess that figures fifty-two miles in three days, doesn't it?

At the end of the season the furs are taken to a buyer who finds all kinds of fault, argues over price, and finally pays a ridiculously low figure for a very valuable fur.

How, we wonder, do they get the price on a mink coat? A skin this year brings ten-fifty apiece Muskrats bring one dollar apiece, foxes three and one-half. A trapper will never get rich, and yet who does the work? His work is tiresome, his hours long, and lonely, yet there is something very profitable just being out in the great out-of-doors, next to God, and His wonderwork, breathing in the health-giving air and building a sound body and mind, which all the money in the world cannot buy.

On the entire trip we were armed with powerful weapons to protect us from the wild animals that roam the untamed wilderness. They are known as .22's!! And if

by any chance some of you hunters doubt the ability of this size weapon, to bring down deer, let me advise you that it can be done with one well directed shot. They are cheap to use and extra light for long tramps.

Deer were very plentiful and tame, some of them acting as though they had never seen a human. This country is well back and few, if any, hunters get back that far. During all of our travels, we failed to see an armed nimrod pursuing the bounding white tails.

For obvious reasons I am leaving out the names of places visited, and the accompanying pictures will have to suffice for the veracity of this tale.



Accounting Dept.

Madelene Spencer

In the Christmas issue of the News, you all read about Santa leaving Louise Clifford a diamond we all supposed at the time that she would be our newest victim, but it seems that we are wrong. Miss Albertina Bartlett (Tina to you) became engaged to Mr. Fred Woodman, and last week brought in a beautiful diamond for us all to see. I know that all of you in the outside departments join us in the main office in wishing her happiness..

Mrs. Rita Van Dyk Knowles visited us recently. Also Mrs. Eleanor Kittredge, and her little girl.

Kathleen Rideout Spencer comes in to see us occasionally and so does Mrs. Eona Morton.

We have a new employee in our office "Faster for Forty Townsend". He is a completely changed person. He comes in now with a minute to spare, takes the stairs three at a time, and then calls the wife to let her know he made it.

Illustrations reading down: #1, A very large mink, the largest one my friend ever caught. The hide when stretched measured $34\frac{1}{2}$ inches. #2, Here we have a skin of a flying squirrel. The light colored sections between front and rear legs are its wings. Skin is about as thick as tissue paper. #3, An armful of furs including fox, mink and raccoon. At his feet is a fox ready to lose his hide. At right, there's many a slip between one shore and the other. The author made it OK but my partner got both feet wet. Here he gets dry socks.

Safety Dept.

H. C. Dearborn

Sure, we are joining in the 1940 State Safety Campaign, and when the time comes to compare records, we expect to be among the leaders in our section.

If the campaign for 1939 had continued through the whole year, our standing would not have been a perfect one, either in the Rail way or in the Electrical Department. The Railway had three lost time accidents during the entire year, and lost 31 man days with an exposure of 225,973 man hours. This would give that department a "frequency rate" of 13.3 and a "severity rate" of .14. A normal frequency and a very low severity.

In the Electrical Department for the whole year - and this all came in the last half of the year since in this department there was no lost time accident until late in July - there were 9 lost time accidents and a lost time charge of 450 man days, a frequency rate of 13.29 and a severity rate of .66 with an exposure of 676,942 man hours.

For the company the frequency rate was 13.29 (accidents per million man hours worked) and the severity rate was .5 (days lost per 1000 man hours worked).

You may have noticed that we are not using the word "Contest" in connection with our Safety efforts. This is because we do not consider our participation in safety work in any way as a contest. What really happens is, that though the Maine State Labor Department is a clearing house, a great many of the industrial concerns in the state compare their safety records for the first half of the year, and the Labor Department by state wide authority, issued awards to those industries which have shown the best no lost time accident record for the period. Then under the sponsorship of the State Labor Department a meeting is held in September or October of each year, an extensive program of (safety) accident prevention matters arranged and discussed by a large group of people who are striving to prevent accidents of all kinds, and the awards made.

There are other campaigns conducted by other sponsors, all on the same general plan, including a National Affair arranged and conducted by the National Safety Council. It is the belief of

those interested in this work that is all helps to prevent human suffering.

* * * * *

Safety Magazine

Do you read the National Safety News when it comes to your division? We have three copies of this very fine safety magazine which circulate every month. Every employee should be interested to see this magazine and it is intended that everyone shall have the opportunity to do so. We go to a lot of pains to give you that opportunity. You may find some valuable suggestions in it, that the rest of us have missed. Why not write the Safety Director about it?

* * * * *

We are going to use the 1939 accident calendar as long as the supply lasts or until we have some new ones printed for 1940 and we hope that there will be no accidents to report on them.

* * * * *

In the Electric Light and Power Magazine for November is a very interesting report on a couple of cases of pole top resuscitation:-

"While working atop a 30 ft. pole 12 miles south of Richmond, Va., recently, C. C. Rayner, Virginia Electric & Power Lineman attempted to connect a riser wire to the 2.3 KV line and was leaning in to the pole with his knees and body to slide his safety strap higher on the pole when one of his legs touched the live wire and he passed out.

B. E. Sykes, a fellow lineman sized up the situation immediately. He grabbed Rayner from the hot wire with his rubber gloved hands. Then holding the unconscious man between his body and the pole, he compressed the lungs and released them at intervals. A few minutes later Rayner began to breathe normally".

Jack Friend, Pacific Power Light Lineman also owes his life to the quick thinking and prompt action of his co-workers, R. A. Cruzen, Jay Montgomery and Myrl Walsh, who use the pole top method. "Their efforts restored breathing in less than five minutes". Use of the technique of the pole top method of resuscitation is becoming more and more common among linemen because of the success of the method and the time saved in applying it.

Second Floor

Catherine Buker

Congratulations have been in order on the third floor quite a few times lately, when some of the fair sex appear with lovely new diamonds, and self-conscious smiles.

We, of the second floor, have always been perhaps just a bit jealous that someone down on this floor could not be congratulated on some occasion or other. Well this month we can report with much pride that at last one of our force is to be congratulated.

Atwell Blaisdell appeared one morning recently with the self-conscious smile, we called it a grin (and what a grin), but of course there was no lovely diamond, just the announcement that there was an "Atwell Blaisdell Jr." born January 10th, at the Russell Hospital in Brewer.

All together now - Congratulations Mr. and Mrs. Atwell Blaisdell Sr. (does that "Senior" make you feel old and dignified Blaisdell?)

Now if anyone would like a few words of advice on how to bring up a boy, just drop in the machine room any time, and hear the details from Blaisdell, Dud and Stubby.

To the followers of out-door sports, skating is the main topic of conversation these days. Miss Florence Steeves, our Sonia Henie has been indulging in this sport almost every night, and every minute of the weekend that can be spared from other activities. I believe that Alice Hackett is one of those who watch and cheer.

A skating party was held Saturday afternoon at Brewer Lake, which was an occasion for one of our Telephone Operators to wear her new and classy looking ski-suit; which is about the best looking suit that ever graced the skating rink at Brewer Lake.

The skating party was a huge success, furnishing a great deal of merriment to all present, especially to the spectators.

Florence Steeves still spends some of her weekends at Augusta, and Alice Hackett can be reached almost every weekend at Lincoln.

Mr. and Mrs. Albert Barstow dropped in Saturday morning, for a short call on their way to Boston. Mrs. Barstow, perhaps you will remember, is Mr. Murchie's Secretary at Calais.

Car House

Walter Brown

Well, here we are starting off a New Year. Let's all make a resolution to make 1940 a banner year for the Hydro News. All employees can help tremendously by bringing the scribes of their departments, pictures and news items of interest.

From all reports the Christmas party was a huge success. All the kiddies were made happy with nice things to eat, and presents from Santa.

Richard Withee, son of Harold Withee of the car barn crew was unfortunate enough to miss the party this year due to an operation for tonsils and adenoids, but promises to be on hand next year.

The members of this Department all join in extending their sympathy to Mr. and Mrs. John Peterson, on the death of Mrs. Peterson's mother, Mrs. Maxfield, who died December 22nd.

So far this year, the weather man has not been too hard on us. We have had quite steady cold weather, but no snow to speak of. Our plows have not had much work to do so far.

Joe Ekholm predicts an open winter. He bases his prediction on the fact that he moved from his home at Alton, down to Old Town for the winter. In years past Joe has been bothered more or less by snow and icy roads, but now with the old gas buggy tied up and his using the trolley cars to and from work, he feels sure that the traveling will be O. K. Cheer up Joe, we've got plenty of time to get snow-bound yet.

I for one refuse to make any comments on February and March, until about April 1st.

We see Harry Greeley driving a new Chevrolet truck.

Tom, our pet cat here at the car barn, had an experience this month worthy of note. It seems that Stubby Hennessey had his mail box here for some minor repairs. Somehow or other Tom got shut inside and when Stubby went to get his box to go home, Tom came out on all fours. Stubby claims some of the boys put him in. The question is, whether he was the victim of a practical joke or was planning to smuggle Tom home in the mail box.

Fred Mason is working all the time now, and is gaining rapidly

since his operation. We're all glad to see Fred looking so good, and feeling so much better, and wish him a complete recovery.

Charlie Harrington is back after spending a week at his home in Freeport.

Johnny Peterson has been walking around the past week all humped over, as though looking for something. At last we found out that he had dropped a stitch in his back. Hope you found it John.

Albert Blake, our painter, reports that the Mrs. is enjoying the winter in Florida.

We listened in on a very interesting debate the other night on the age-old argument of Rifle vs. shot gun for deer hunting. Any comment on this subject will be appreciated by Ivory Bowden and Edgar Bille.

Yours truly attended the funeral of a dear relative in Lincoln Saturday, January 20th. We want very much to call on our friend Harry Allen and the Mrs. but could not possibly spare the time. Harry is the ace scribe for the Lincoln Division. Please accept our regrets Harry, would have enjoyed seeing you.

We had another miniature snowstorm last night, about an inch of light powdery stuff, amounting to nothing.

First Aid

Elmer Cole

We hear a lot about sinus and it deserves serious thought also several don't's and do's. Never blow one nostril at a time. Blow both. Never blow too hard. If we blow one nostril only we may back matter up into other nostril which may harden and cause a sinus trouble or worse. If we blow both nostrils at once, but too hard, we may injure the delicate membrane lining the nostril and cause severe sinus trouble.

If a condition of discomfort persists, consult a doctor who can always best judge the proper treatment, and save us a lot of discomfort and lost time.

A plugged sinus may easily cause a mastoid, so let us heed the warning "Keep Fit".

Seems there are lots of throat infections this season, so a word might not be amiss. Tincture of Argerol is fine for the ordinary type of throat infection. It is astringent and tends to dry up the condition, and assist the

healing process. To apply, make two swabs, fairly large. Dip one in the Argerol and leave other dry. Tip head well back and wipe throat dry with dry swab, then wipe the throat with Argerol. This treatment will usually furnish quick relief, and if used faithfully will usually effect a cure.

Remember the little wounds are those that require the most attention, the large ones are usually taken care of by the doctor.

Remember there is NOTHING so good for the eyes, as one or two drops of Castor Oil. It lubricates the eye ball, lids and foreign matter, affording relief at once, and allows the foreign substance to wash out. It is also grateful for eye strain.

Meter Dept.

Elmer Cole

The Meter Department news is rather lacking just now, as the seasonal customers are pretty well taken care of until Spring. Funny how the memory jolts us tho. We had two customers away over on Lakeview Avenue, out at Lucerne-in-Maine, who discovered they had neglected to sign off, so it meant two trips out there. Lucky for us there wasn't enough snow, but we could make it with chains on. Also we have had four such trips out to Pushaw and also to Eddington. If we had a normal amount of snow for the season, it would mean snowshoes. Well all's well that ends well.

We are getting a lot of complaints now as usual at this time of the year. Short days and Holiday season mean lots more light, so of course it follows that the light bill is larger, therefore, the meter must be wrong.

Joslyn and Morgan are doing polyphase testing "Periodic" about town now and are finding several meters with one element gone, which evidently dates way back to lightning season. We found one case in which the disk was welded to the magnets and couldn't possibly turn. Funny thing but this was a complaint case originating at the office. Street light clocks are beginning to bother on account of the prolonged long spell of severe cold weather, which means cleaning, oiling and timing. Time switches also come in for their share so all in all there is never a dull moment.

Veterans Service List

Hydro Employees honored this month by Anniversaries of service of five years or more

Employee	Position	Date.	Years.
Doane, Alvah H.	Chief Operator, Substation, Bangor	Jan.	15, 1904 - 36
Ryder, Henry F.	Clerk, Stock Dept., Service Bldg., Bangor	"	23, 1918 - 22
Stockwell, Earl H.	Bookkeeper, General Office, Bangor	"	23, 1918 - 22
Bullard, A. Ross	Bookkeeper, Stockroom, Bangor	"	25, 1921 - 19
Dearborn, Hall C.	Safety Director, Bangor	"	21, 1925 - 15
Buzzell, Lloyd M.	Lineman, Bar Harbor	"	15, 1926 - 14
Shaw, Evelyn T.	Cashier, Old Town Office	"	17, 1926 - 14
Buck, Doris E.	Cashier, Millinocket	"	31, 1927 - 13
Mutch, Herman L.	Asst. Supt. Veazie Station	"	11, 1928 - 12
Inman, Charles H.	Mail Clerk, Bangor	"	6, 1929 - 11
Gardner, Edgar L.	Station Operator, Howland	"	4, 1930 - 10
O'Connor, Thomas S.	Salesman, Old Town	"	12, 1931 - 9
Hobbs, Ellsworth J.	Supt. Medway Station	"	15, 1931 - 9
Beatham, Guy H.	Station Operator, Medway	"	15, 1931 - 9
Corriveau, Frank J.	Supt. Howland Station	"	15, 1931 - 9
Davis, George L.	Station Operator, Howland	"	15, 1931 - 9
Dow, George	Supt. Hydraulic Equipment, Bangor	"	15, 1931 - 9
York, Rudolph B.	Station Operator, Medway	"	15, 1931 - 9
Day, Llewellyn H.	Rackman, Medway Station	"	21, 1931 - 9
Baughman, George W.	Clerk, 31 Main St., Bangor	"	24, 1933 - 7
Graham, John R.	Telephone Operator, General Office, Bangor	"	3, 1934 - 6
Yetton, Robert N.	Car Operator, Bangor	"	18, 1934 - 6
White, Peter J.	Trackman, Bangor	"	1, 1935 - 5

OBITUARIES

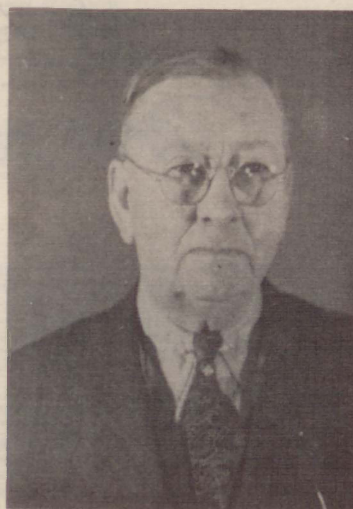
J. EDWARD JORDAN

J. Edward Jordan, 64, of this city, died Saturday afternoon in a Bangor hospital after a brief illness. He was born in Old Town, but for the past 30 years had lived in Bangor.

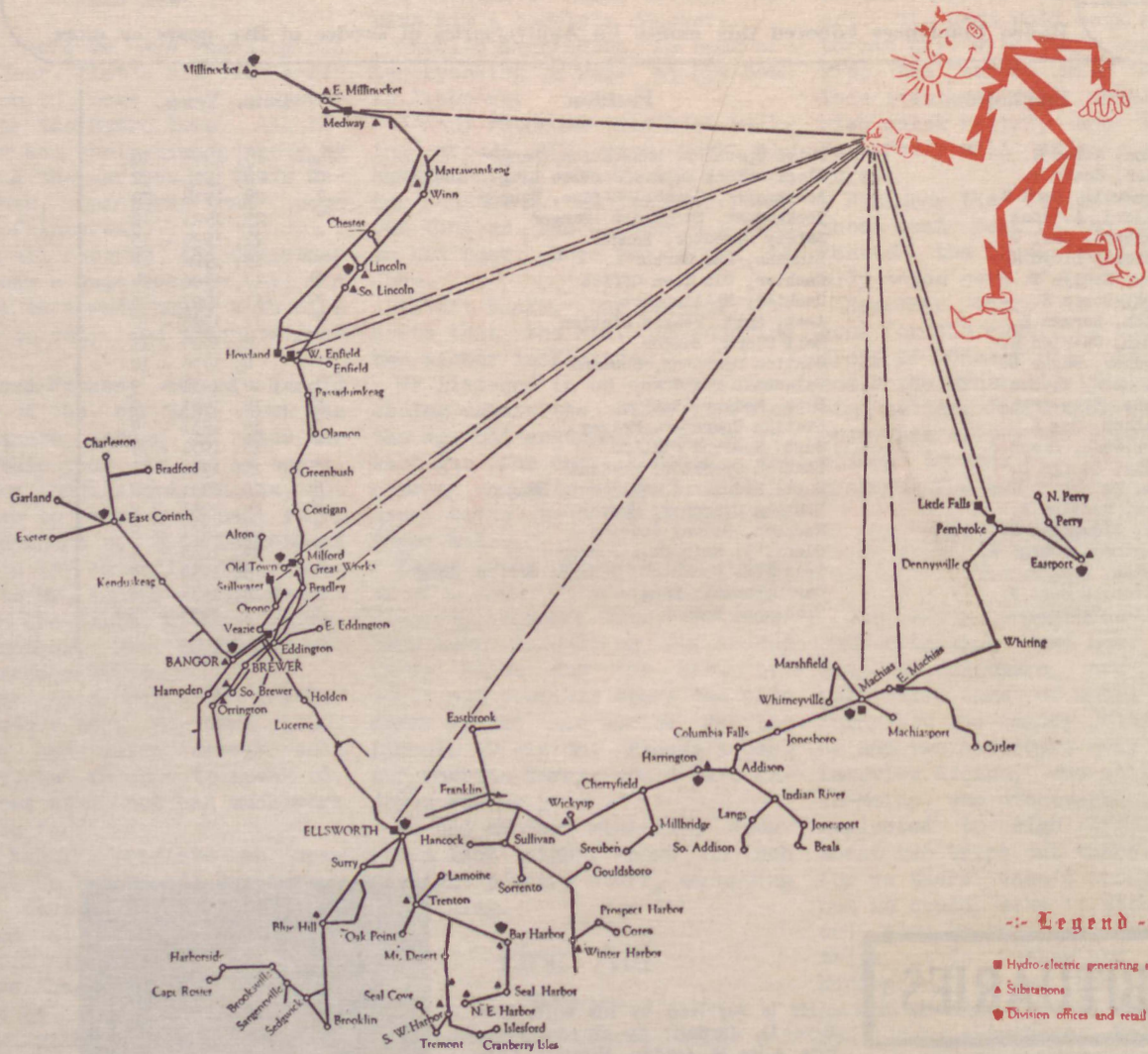
Mr. Jordan had been connected with the Bangor Hydro-Electric company for many years as a salesman, his genial nature having won him many friends throughout Bangor and Brewer.

He is survived by his wife, Mrs. Blye D. Jordan; by three daughters, Alice H. Jordan, Virginia Anne Jordan, and Priscilla Mary Jordan; and by a son, Paul E. Jordan, all of Bangor. Also surviving are two brothers, John H. Jordan of Old Town and Charles P. Jordan of Savannah, Ga., and two sisters, Mrs. James F. Hurley of Winthrop, Mass., and Miss Vivian A. Jordan of Old Town, as well as by several nieces and nephews.

Funeral services will be held this morning at 9 o'clock from St. John's Catholic church.



IT IS NOT BY CHANCE



-:- Legend -:-

- Hydro-electric generating stations
- ▲ Substations
- Division offices and retail stores

IT IS NOT BY CHANCE that an industry closes its doors, that workers are thrown out of employment and that families lose their wage earners. A shutdown caused by reasons beyond immediate control of the management; markets filled by new or better products; manufacturing conditions changed to an extent that migration to a different locality is forced; new transportation facilities that hurt one community and help another; a plant completely outmoded.

What happens? Money out of circulation; entire community adversely affected; butchers, bakers, clothiers and all. Taxes unpaid, also doctors and dentists; modern conveniences in hundreds of homes relegated to attics; family cars jacked up and pleasures curtailed.

IT IS NOT BY CHANCE that an industry opens its doors, that workers are employed and that families regain their wage earners.

A plant reopened through a favorable combination of circumstances brought under control by the management; markets increased for a product or new products in production; new transportation facilities or new money to modernize plant equipment.

What happens? Money in circulation; entire community favorably affected; butchers, bakers, clothiers and all. Taxes paid, also doctors and dentists; modern conveniences added; family cars on the road and pleasures of life enjoyed.

In this broad aspect we comment upon an article in the Bangor Daily News of January 9th, 1940. "Orono Pulp Mill to open in March. E. M. Graham makes important announcement; Over 100 men to be employed at start. x x x. Reasons for starting lay in several fields, but two of them stand out: (1) a distinct shortage of pulp all over the country; (2) the war, or wars, in Europe."

But, in addition, one must give due recognition to the constant vigilance of the Management and Directors of the Eastern Corporation; to their alertness to take full advantage of a current upturn in industry; in their analysis of trends and conditions in the pulp business; to their knowledge of shifting markets and finally to their determination to put men and capital back at work and to a spirit dominated by the confidence that "It can be done".

There is scarcely a city or town in Maine but that can benefit, as will Orono, by the adoption of an aggressive new-business program, backed by the strongest local interests and organizations, headed by men and women of vision, confidence and determination and financed to carry on to the accomplishment of its goal.

There are many in Maine examples to follow; new industries, large and small, in Gardiner, Hallowell and Augusta, in Patten and Old Town, in Bangor and Brewer, in Camden and Rockland, in the peat bogs of Washington County and elsewhere within our borders. And, established industries, as well, forging ahead in volume and increased employment.

To communities with a slack to fill, we urge: take stock of your empty buildings and study their possibilities; give thought to providing new facilities; size up your unemployed workers and appraise the untapped resources of your busiest citizens; find ways and means of spreading the news of the advantages you offer until men and capital are at work again, until new men and new capital join the productive forces of your community.

May we, within our limitations, be of service to you in advancing your community interests? If, with our business contacts, within and beyond the confines of Maine, we can bring you but one suggestion of value or assist along lines already started or confer as to what might be started, we will be genuinely pleased to put our personal services at your disposal.



IT IS NOT BY CHANCE that the cities and towns of Northern and Eastern Maine, in a spread from Millinocket to Eastport, have the most dependable Electric Service that modern engineering can provide for within this expanse of territory there are eleven inter-connected hydro-electric generating stations, thirty-nine sub-stations, twelve hundred and eighty miles of transmission and distribution lines and eleven Division offices and retail stores, all in the Bangor Hydro system.

IT IS NOT BY CHANCE that REDDY KILOWATT, your Electrical Servant from the Bangor Hydro helps you enjoy every modern convenience for household duties or industrial activities; all a result of the steadfast purpose of the Bangor Hydro to do its proportionate bit for the progress and growth of Maine.

BANGOR HYDRO-ELECTRIC COMPANY