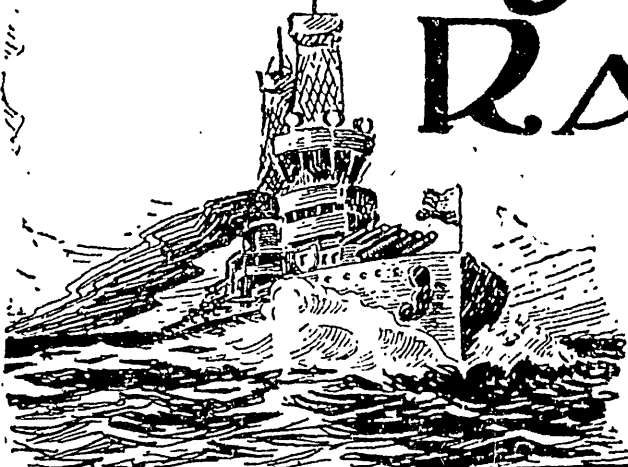


The Providence Sunday Journal

"Listening in" WITH PROVIDENCE AMATEUR RADIO OPERATORS

Catching Messages From Air Fascinating Sport and Educational
Pastime for Group of Young Men of City Interested in
Serious and Scientific Line of Work



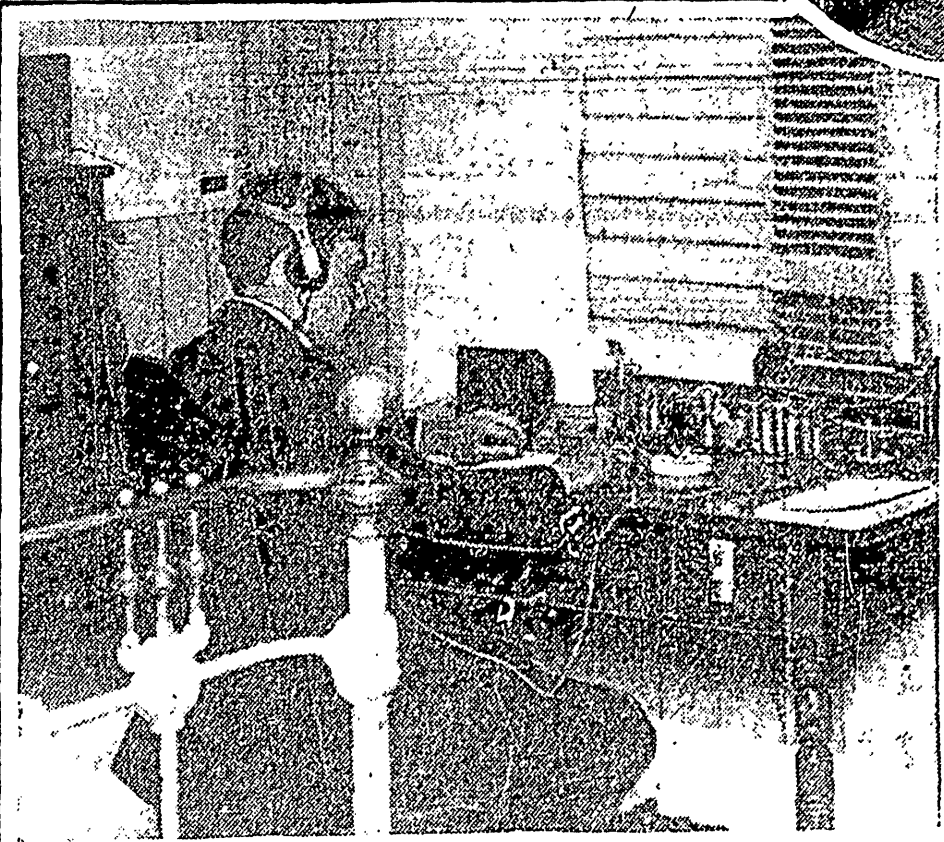
Raymond P. Adams sends out a "C.Q." call (who wants to talk)



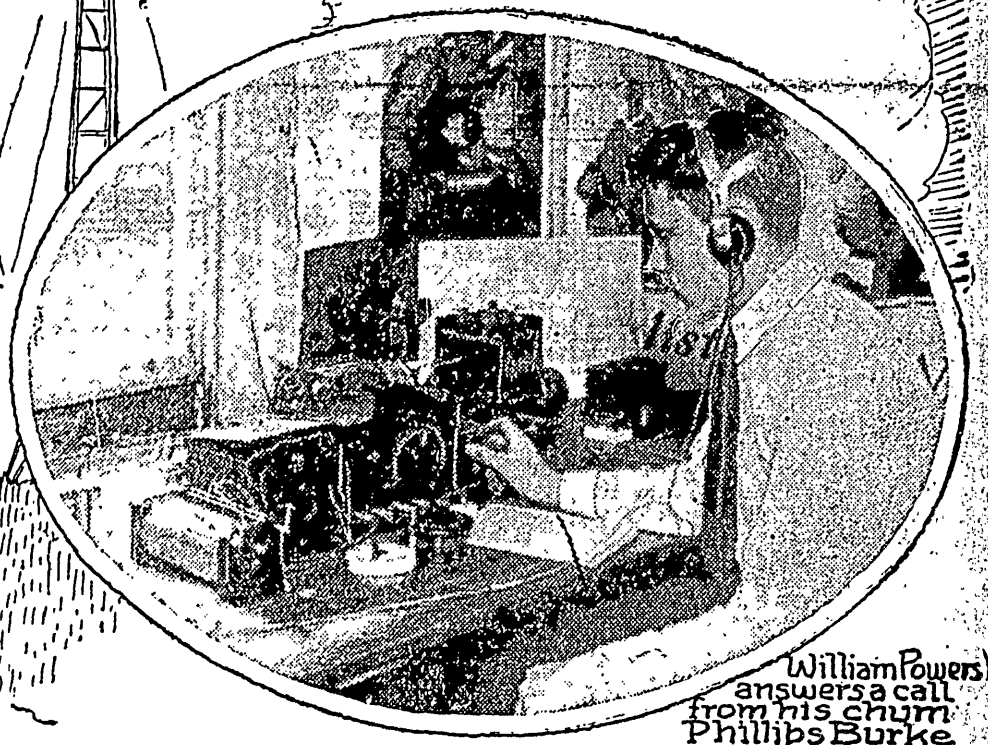
George L. Bradley believed to be youngest licensed operator in Providence



Harold L. Dewing gets a message from one of his friends



Phillips R. Burke talking with another high school student a mile away



William Powers answers a call from his friend Phillips Burke

SCORES of messages sent out by wireless from stations and steamships in all parts of the world are daily being received and translated by a group of youthful, amateur radio operators of Providence who have become interested in wireless telegraphy through connection with radio clubs or individually through a personal penchant for the work.

Except in comparatively few instances these messages are not sent to the score or more amateur stations, but in their flight from source to intended destination the words are picked up by the Providence boys whose instruments are attuned to the various ranges of the messages. It's a fascinating indoor sport, in addition to its value as an educational pastime for young men who wish to devote their spare moments to a serious and scientific line of work.

The popularity of wireless among the younger generation is easy to understand after visiting one of the wireless stations. There is romance in messages picked up as they flash from steamers hundreds of miles off shore to relatives from whom they are parting or preparing to meet.

Romance Comes in Translations

The romance comes, of course, with the translation of the messages from the wireless code and this is what the majority of the youthful radio operators can do after a few months of study. At first the words come too fast or, perhaps, are received in French, Italian or other foreign language, but by continued practice the young men soon become expert in jotting down the letters indicated by the hum of the receiving instrument and catch the messages regardless of the speed of the sender.

The wireless activities of youths of high school age recall the days when the land telegraph was being developed. The Morse code of dots and dashes was then learned by boys who were intent upon the study of telegraphy. Many a youth has strung wires from his room across the backyard to his playmate's home, and with sending and receiving instruments the youngsters have passed many happy hours clicking off messages to each other.

There was an element of mystery in the flashing of letters over the thin copper wires between instruments a block away. But how far greater is the mysterious and almost uncanny element in picking up messages flying unseen through the atmosphere.

Land Experiments Are Limited

The land telegraph experiments were limited. There were always the wires that had to be strung between instruments. The messages must necessarily be purely "local" and only the boys included in their own private circuit were able to send the dots and dashes from one to the other. Tapping of one local and railroad wires has since been forbidden by law.

Quite to the contrary in the case of wireless. The youth with suitable

antennae and a receiving instrument of sufficient strength is in the world circuit. Tapping the air for messages is not forbidden by law—though there are regulations that prevent the publishing of certain messages picked up by amateurs.

The wireless opens up a new world to the youth. He revels in the thrills that come when listening in and hears that a ship is in distress at this or that latitude and longitude. He hears the messages of steamship passengers who wish to acquaint their friends on shore that they are "well and happy." He picks up warnings of icebergs that must be avoided by shipping and he listens in while a speech of the President of the United States is being sent to some foreign country.

The aptitude of youth to learn quickly is especially illustrated in radio work. Keen interest in wireless coupled with earnest application has developed scores of well-trained operators. Impetus to the work in Providence has been given through the Technical High School Radio Club under H. H. Peabody, a member of the school faculty. Although lack of financing the work at the school has been a handicap, Mr. Peabody has obtained excellent results in developing operators. A number of the members have their own stations in their homes and are receiving and sending messages daily.

Several Organizations Are in Existence

Since formation of the Technical High School Radio Club several other organizations of the same kind have come into existence, their members adding to the number of amateur operators about the city and State. Many of these operators

are licensed, it being necessary to get the permission of the Government to have a radio station. No license is necessary for a station that merely receives messages. The sending stations are given "call signals," by which each man is known among radio operators, and for this privilege a Federal license is required.

Among the expert radio operators of the younger generation in Providence is Franklin S. Huddy, son of Attorney George H. Huddy, Jr., of 294 Bowen street, whose photograph is printed in the art gallery section. The young man, who is now only 15 years of age, first became interested in wireless telegraphy five years ago, and since that time has devoted most of his waking hours to the study of operating.

Before the war the young man had learned the Morse code of land telegraph, the Continental code for wireless, had rigged up his own antennae, assembled and connected up his receiving and sending apparatus and had a limited operator's license. He is now a licensed operator of the "first grade, amateur," and, of course, has a station license.

Young Huddy has also become an expert in wireless telephony and is able to talk with other wireless telephone operators within a radius of New York city. An improved circuit for the wireless telephone is an invention of his. This piece of work has brought favorable comments from experts in all sections of the country. A description of the invention written by the young man and published in "Q. S. T.," a national magazine devoted to wireless, brought a flood of letters to his home for further information.

Franklin Huddy is now in his second year in Hope high school, and by dint of hard work manages to prevent his scholastic studies from interfering with his wireless activities.

To the uninitiated a visit to a wireless operating room is an interesting experience. The array of wires and apparatus is bewildering to other than an electrician, and the hum of the instruments which emit a buzz of varying tones bears no message to the novice. But to the young operator every little sound had a meaning of its own.

"That's Newport calling," he explained to the Sunday Journal reporter who was listening in with him.

The volume of sound changed as Huddy moved the range lever.

"There's Cleveland calling."

And again a change of sound—one of higher tone.

"There's a message from an incoming ship. Personal message."

And Huddy began copying.

"There's another message from an incoming ship, but it's in Spanish," he added as he copied sentences that only a student of Spanish could translate. He explained that these messages may not, under the radio law, be disclosed by the operator.

Official Time Sent Broadcast

At 12 o'clock noon and again at 10 p. m. official time is sent broadcast by the wireless station at Arlington, near Washington, D. C. Huddy has visited the station and learned the method by which the information is given out. For five minutes before the hour a great pendulum ticks off the seconds, which are

sounded by wirelers. There is an interval of 10 seconds before the hour that no sound is given out. On the hour a prolonged buzz is sounded. This gives the time for ships at sea, and at these hours, 12 noon and 10 p. m., all steamers within range of the signal set their chronometers. At the same time the clocks in various amateur radio stations are often set.

The antennae of young Huddy's wireless has almost unlimited receiving range. Messages from Eiffel Tower in Paris are frequently picked up, and from other parts of the continent as well as from stations in England. His record for long distance was a message heard while being sent from the Philippine Islands.

The sending range of the young man's apparatus reaches about to New York city. He has almost daily wireless talks with the station at Brown University and with other amateur operators about the city. Wireless conversations with operators around New York boats plying Narragansett bay are of frequent occurrence.

Surprise Shown at Huddy's Youth

After becoming acquainted with Huddy by wireless some of the steamer operators have called at his home and it has been with considerable surprise that they have shaken hands with a mere youth. Their surprise may be due in part to the fact that Huddy uses a "bug key," which is a fast instrument requiring considerable skill in operating. Comparatively few amateurs have mastered this key.

Huddy's activities in wireless telephony have been unusually successful. One of his experiments with this instrument is the giving of nightly concerts, which are listened to by other operators who have learned to listen in at the time

these concerts are scheduled. The music is from a phonograph that Huddy operates in front of the transmitter and the records are heard distinctly at receiving stations about the city and at even greater distances.

In addition to equipping his own wireless station, Huddy has had a hand in starting a number of other wireless stations for his young friends about the city. To him they come for advice when planning a new arrangement of instruments or adding equipment.

Many calls are received at the Huddy station from the youthful operators who need assistance. It may be that a new bulb isn't working right or battery trouble interferes with efficient operation. Franklin Huddy is called upon to make an inspection and remedy the difficulty.

Wireless Station at High School

Huddy has designed and erected several different types of antennae for his fellow operators. Certain conditions require special design of antennae. It may be indoor equipment or may be a specially designed equipment for the exterior. Huddy sizes up the situation and recommends the type most suited to meet the existing conditions.

Huddy is now assisting in the installation of a wireless station at Hope high school. The work is already getting under way and it is expected that before the close of the school year a well-equipped operating room will be in running order. This will serve as an experimentation station for all students of the school who are interested in wireless telephony.

Amateur operators have their troubles with wireless apparatus. Atmospheric conditions must be met and tuning of instruments has to be accurate for satisfactory results. This all requires ex-

perience through experimentation. But there is one trouble that all the adjusting of instruments and experience in operating cannot remedy, and that is the interference caused by defective street lamps in the city.

The young operators are up in arms over the condition and have considered taking the matter up with the City Council. The trouble is found in the buzzing arc lamps, the sound of which is recorded over the wireless, completely drowning out the message waves that would be otherwise received. In this way much of the pleasure that the young men would enjoy by operating at night is curtailed.

The boys explain that the humming arc light is easily remedied by better grounding of the circuits. Defective grounding will frequently result in the annoying humming sound. If the lighting company would inspect their lamps for this trouble it could be entirely eliminated, the boys assert, and they believe that they are entitled to have the matter taken up and a remedy effected.

As far as is known the youngest radio operator in Providence is George L. Bradley, the 12-year-old son of Mrs. Charles Bradley, Jr., of 170 Waterman street, who has been experimenting in wireless for the past year. He has mastered the code and can talk with his friends about the city. He says that he still finds trouble in receiving messages when sent at high speed, which is a natural difficulty for one who has been studying wireless only a year during his spare time from school.

Another of the enthusiastic operators is William Powers, son of Mr. and Mrs. Herman W. Powers of 30 Medway street, who is President of the Technical High School Radio Club. The young man has

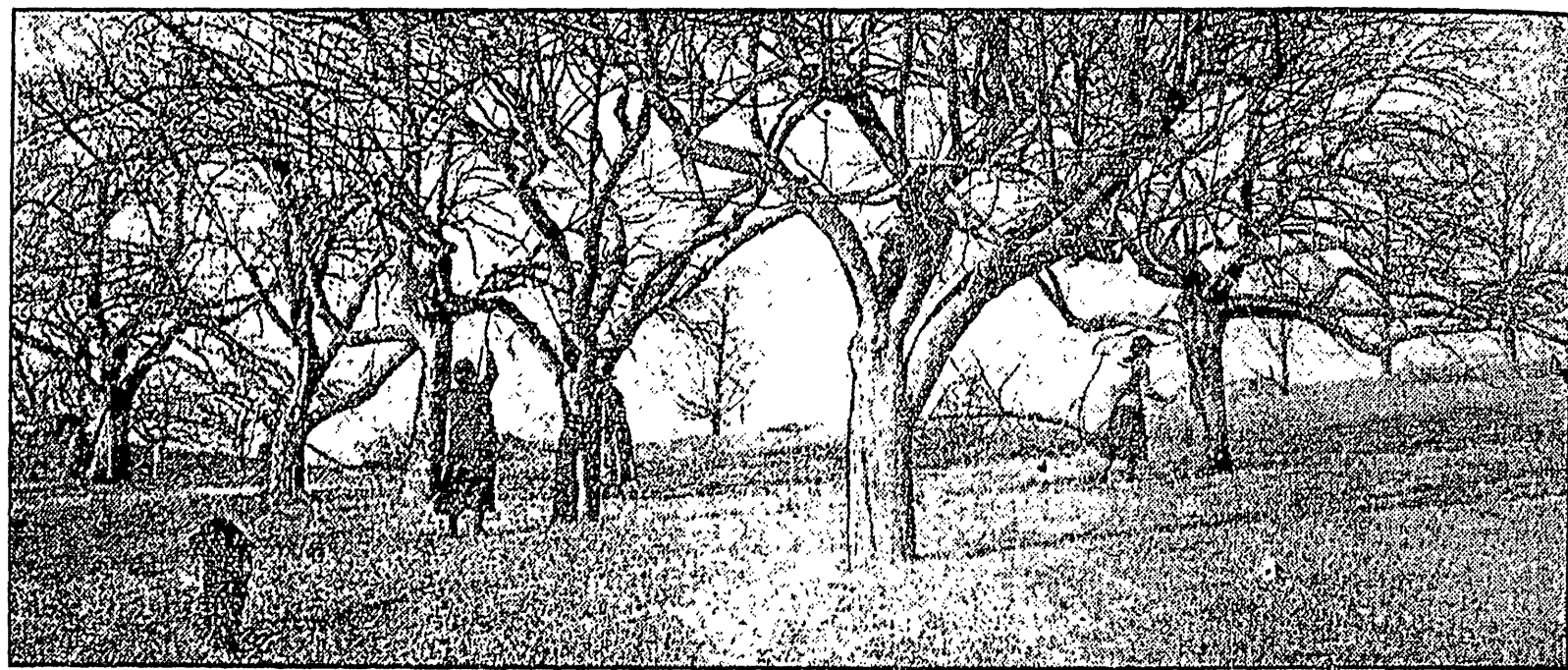
Continued on Page Four.

TWO RHODE ISLAND WOMEN MAKE OLD ORCHARDS PAY

With Some Technical Knowledge and Plenty of Grit Difficult Tasks of Pruning, Spraying and Harvesting Are Tackled And Fine Crop of Apples Results From Labors.



Spring Brings Its Labors in the Orchard



Scraping the Bark of Trees to Destroy Hiding Places of Scale



Pruning is Necessary for Size and Quality of Fruit

Miss Emerson is on Ladder With Saw, While Miss Chace is Using Clippers on Small Tree.

WE do it because it is healthful, outdoor work, and because we like it, but more because it is a sort of fundamental industry that we think ought to be encouraged."

So answered Miss Helen Emerson and Miss Maude Chace, as they paused for a few minutes in their busy tasks at the spring care of their apple trees at Tower Hill, in Cumberland, to answer the "why" of their decision to try to bring back some old Rhode Island orchards. That they are in earnest in their interest in the subject is shown by the fact that a year ago they put aside all other activities of their busy lives and spent 10 weeks at the Massachusetts Agricultural College at Amherst to supplement by a little technical training the knowledge which had been given to them by their girlhood spent in the country.

As a result of their decision, and their training, they have already passed one successful season in producing a crop of Rhode Island apples, and are now busily and confidently-looking forward to another.

Miss Emerson is the daughter of Lowell Emerson of Pawtucket. She is college trained, but says she has always had a strong liking for the country and country life. So a little more than a year ago, she and a chum, Miss Maude Chace, also educated and qualified for a "city" position if she should choose one, decided to devote their energies to rehabilitating the old orchards on her father's farms on the forbidding slopes of Tower Hill.

They found ample material to challenge their enthusiasm and provide toil for their willing hands. It was not all fun, by any means, for they found that the apple trees, set out a generation ago and cared for faithfully at one time by their former owners, but since neglected, were much in need of care.

The trees are on two abandoned farms adjoining the Emerson farm at Tower Hill. There are about 125 trees that are of full growth, or a growth of perhaps 40 years. These are on the Carrell and Staples farms. Those on the Carrell farm had received the painstaking care of their owner, Welcome Carrell, who looked after



A Close Inspection for Lurking Places of Pests

them until the declining years of his life. Those on the Staples place had received less care, so that all these trees were in great need of pruning, scraping, spray-

ing, and all the items that go into the routine of the fruit-grower's job. When the two young women made their decision to undertake this work, there was

also a block of 50 young apple trees on the Emerson place, which had been put out about five years ago by Miss Emerson's father. So the two had some little undertaking on their hands, when they assumed the burden of orcharding, but they were determined to show what they could do, and also that female hands would not be less able than those of "men-folks," even at work that required climbing and lifting. They went into the work, knowing what was ahead of them, and for fear that the night might be entirely "up" in the scientific side of tree culture, they spent their weeks at the Amherst college, considering it a good expenditure of that amount of time. "They certainly do give you good training there," said Miss Emerson.

In the spring of 1920 they found themselves confronted by a vast amount of work. In the years during which the old trees had been allowed to go without attention they had shot forth great branches, "suckers," and wild shoots, running hither and thither among the tops, and making a great mass of unmanageable wood. This extra growth, too, would take the vitality of the tree, which was so much needed to go into fruit, or, if a great quantity of fruit should "set" upon it, it would grow to maturity in abundance of numbers, but poor in quality.

So axes and saws went to work industriously, and there were many blistered fingers before the two proprietors of the

new enterprise called the job well enough done for one season. To be sure, they had already had their experience as "farmettes" during the war, raising garden crops, but that was ground farming, and there is no getting away from the fact that they had no experience in orcharding. They had to learn the art of pruning, and the art of spraying, and the art of harvesting, and the art of marketing. They had to learn the art of pruning, and the art of spraying, and the art of harvesting, and the art of marketing. They had to learn the art of pruning, and the art of spraying, and the art of harvesting, and the art of marketing.

would be effective against the scale alone.

The second spray was the one known as "pink tip," from the fact that it is given as the buds begin to show their color. This spray is more especially for leaf-eating insects which are beginning to get in their mischief by that time. This is quickly followed by the calyx spray, the most important of all. This is applied with all the force possible immediately after the petals have fallen from the blossoms, and before the calyxes close up and enclose the egg of the mischief-making apple worm.

In order to do this spraying thoroughly and to be able to cover their ground quickly, the two women decided to buy a power sprayer. This was a big task, and on a wagon, and having a spray pump operated by a gasoline engine. It has capacity enough to operate several nozzles, and making a high pressure, gave a fine misty spray which was most effective against the insect pests.

For spray material, Miss Emerson and Miss Chace agreed that a lime-sulphur solution was preferable to an "emulsion" kind. They bought materials and mixed their own solutions, finding this inexpensive, as well as a way to make use of the knowledge they had gained in their Amherst course. The "dormant" spray was applied before the trees began to put out leaves, a period that places this spray in the latter part of the month of March. The application of the spray

was the beginning of busy times for the orchardists.

It turned out that the women orchardists had to learn a few other things besides the actual science of caring for trees, for inevitably with their spray outfit they bought a gasoline engine and with it all its attendant whistles and caprices. Yet they found themselves masters (or mistresses) of it, and found no difficulty in making it perform its functions. It was a little "too much," however, when the machine broke down right in the midst of the calyx spraying time, and it was necessary to borrow a sprayer to complete the job while a new part of the sprayer was ordered from the factory.

The first season brought its rewards in a fair crop of apples, although the two women say they did not get all perfect fruit by any means. "We are sorry to say we had some older apples," they said. But most of the crop was good, and was marketed in bushel boxes, each marked with the name "Upland Orchards," in true advertisers' style showing that they learned more than the technical side at Amherst. They also found time to prepare some exhibits for the fall show of the Rhode Island Fruit Growers' Association, and the Rhode Island Horticultural Society, in each of which they landed some prizes. Just to show that women could do all the work as well as men could, they made their own apple boxes.

Now they are ready for another season, with just as much hard work to do and just as much enthusiasm to do it. There was more pruning to do, for it would not do to remove all the old wood in one season. So the Sunday Journal man found the women hard at work with their ladders, pruning saw and scrapers, getting the trees in readiness for the season. The old, loose particles of the bark was scraped off, so that the spraying solution might be driven hard into the crevices and find the lurking places of that sort. Removing the loose bark, too, makes the trees pleasanter to work on, and gives the entire orchard a much more attractive appearance.

As to the help problem, the "girls" say they have had no trouble. "Last summer they found they had girl friends who were just as much interested in orchard work as they were themselves, and they came and stayed as long as they were needed. This spring they have already had visits from friends, who are interested in their work, and when they need help, they are sure they can get it easily. They intend, however, to follow the example set in Tennyson's "Princess," and keep to their own sex in all the help they employ.

Of course orcharding signs at the present time do not point to a big yield of apples this year. Many apple trees persist in having an "off" year alternately, and this is the "off" year. Failing in the case roughly, fruit buds are borne on the little fruit branches on alternate years, and a trained orchardist can tell in the spring which are the fruit buds and which the leaf buds. But they are going to go into the year, and they are confident that they can produce better fruit this year, if not more of it.

May is Earlier by Nature's Calendar

Flowers and Birds Arrive Fully Three Weeks Ahead of Last Year's Spring Schedule, Despite Cold Days

BY HENRY E. CHILDS.

Technical High School.

AT Day comes early this year. We have many calendars by which we may measure time. The Gregorian and Julian calendars are not involved in this measure, for May Day must come on the first of the month. The calendar of nature has pushed things ahead, so that May has come upon us earlier than usual. Flowers and birds were fully three weeks ahead of last year's schedule during the early spring. The third week in April found a slowing down of nature's activities on account of the cold rains. Monday opened up bright and a little warmer. Let us hope that it is a good omen for the days to come.

Now we shall be ready for May walks and May breakfasts galore. There is something very fascinating about a May breakfast, if it really deserves its name. A May walk may take place at any time during the day. But to have a really truly May breakfast means that the party must pull themselves out of bed in the cold of the early morning, shiveringly scratch together a bite to eat while laying out the magnificent box of lunch provided with fastidious care for the big event, and then adjourn to a street corner and wait for an early street car. On that car, the May walker will find a group of "regulars," whose ready lites and friendly conversation with one another are a little short of amazing to one who travels with more reserved groups on cars two or three hours later.

That early morning trip has so many other pleasures in store for the unaccustomed adventurer in hours later than the wiser ones. He finds all nature waking up. There is a wealth of life about him, once he gets outside of the city. The

birds that are singing are not merely a few stragglers, for nearly every male is at work singing his praises of the day that is opening before him. These birds do not lie abed for a few hours after sunrise, with the shades drawn, but are beginning to stir when the first gray light of dawn appears. The United States Biological Survey has assumed that at this time every singing male in the vicinity is going it, and therefore has made estimates of the numbers of birds in a given locality, basing its count upon a count of the songs heard in the early morning.

A slight modification must be made. If we say that all of the males that sing at all at that season are singing in the early morning, we shall come closer to the truth. In the current number of The Ark there is an article on the singing periods of birds, in which the author states that he has found some cases where a few individuals of a given species sang for part of the season, but not for all of it. Later on some other individuals of the same sort started up. Their song periods overlapped, but there was no time in the summer at which all of them were singing. Aretas A. Saunders of Fairfield, Conn., found that, although field sparrows sang from April right through till the early days of August, there was no individual bird that sang through all that time. He distinguished the individuals by their location and the peculiarities of their songs. That recognition of individual songs requires a good musical ear. It is something of a task to recognize all of the common species, unless one is naturally gifted musically. The more striking variations from the usual song type will be apparent to an ordinary observer, even though he finds it sufficiently like the usual song to identify it. The musician who wants to carry the game further and record the numerous variations of songs that he finds, will have an enlarged field for enjoyment open to him at all times. To was those indi-

vidual songs, as Mr. Saunders has, opens the way to some interesting studies of the lives of individuals during their summer stay that can be correlated with the work done in studying the habits and range of individuals by trapping and banding operations.

An English sparrow is not such an uninteresting little bird after all. There is a lot of fun to be gained through watching him, as though he knew that his neighbor of his was not able to learn him. The mouse scuttled along a few feet and stopped, with the sparrow hooting it alongside of the mouse, and coming to an abrupt pause when the content stopped. Then there was a flutter of wings as the curious one went a little closer. The mouse lifted a little, and the sparrow stopped in midair. It settled down at

a respectful distance and let the mouse go on.

The various maples have divided among themselves the task of brightening the landscape with their flowers. The red maples, familiar friends of the summer, opened the season with their bright red flowers. The silver maple along our streets was a close second in the race for honors. These maples were forming fruit when the sycamores and norways began to unfold their buds and display flowers of still greater variety. Ash-leaved maples were out about the same time. I think. The sugar maple took up the good work latest of them all. One day the swelling buds burst open, and on the next the yellow silk tassels began to hang from every bough.

Such a difference in flowering season seems to be characteristic of the different kinds of trees and not due to slight differences in food or light conditions. Sometimes we find that these other factors make a great deal of difference. Sunlight has some effect upon the season of blossoming of these trees. Possibly it is almost entirely a question of warmth, supplied in this case because the soil is so warm and water supplies the tree with food and water supplies the soil with food. The soil, in turn, has no effect on the growth of these buds, as it has upon the growth of the tree at other seasons, because it is only after the leaves have come out that it can do anything worth while. It is only the green part of a plant which can harness the sun's energy. During the early growth of plants we

find some very interesting changes taking place. Life every other living thing, they must eat to live. In the late summer and early fall it looks as though some plants have taken on the habit of storing food for the winter. The result of such a practice is beneficial to the plant, though it may be less so for the sedentary human gourmand. The purpose is to develop sex cells which can unite and form the vital portion of a seed. That seed is further developed by the early life of the embryo plant. The mother plant may lack the joy of an animal mother in planning for the welfare of her young, but she accomplishes it by quietly storing lightly concentrated foods within the seed.

When the embryo tree feels the urge of warmth and moisture, it develops an appetite and begins to feed upon the food in its conveniently placed pantry. It grows vigorously and soon has a root which bores its way downward into the soil, where it soon begins to withdraw food from the soil water. That results in more growth and longer life. These leaves soon take on the task of food manufacture and the young plant becomes independent of the original store of food set aside for it by its mother. The parts of the seed that contained the food. Sometimes the place for food is a seed leaf or pair of seed leaves. They were present inside the seed and are very different in shape and thickness from the true leaves. These leaves are the ones with which everyone is familiar. They take upon themselves the responsibility of manufacturing most of the food that is used by the plant through the rest of its life.

"Listening In" With Providence Radio Operators

Continued from Page One.

been engaged in wireless work for about a year and is fast becoming proficient in receiving and sending. He has a well-equipped station and his experience in receiving has included the recording of messages sent from a station 200 miles away. Six months ago Phillips P. Burke, son of Mr. and Mrs. William P. Burke, of 35 Lloyd avenue, established a radio station. Burke is a student of the Technical High School Radio Club. He has installed his

equipment in his bedroom where he can be within reach of the instruments night and day, thus getting the maximum amount of pleasure out of the work. Harold L. Adams, another radio enthusiast, is finding wireless work a fascinating indoor interest. He is son of Howard R. Adams, of 99 Cypress street. His instruments are neatly arranged in a roll top desk which has been altered to carry for the instrument board and sending and receiving apparatus. Adams has been engaged in wireless work for nearly four years.

Harold L. Dewing, son of Mr. and Mrs. Alfred P. Dewing, of 26 Camp street, joined his young friends in wireless work a year ago. He is a member of the Technical High School Radio Club and is finding wireless work a fascinating indoor interest. He is son of Howard R. Adams, of 99 Cypress street. His instruments are neatly arranged in a roll top desk which has been altered to carry for the instrument board and sending and receiving apparatus. Adams has been engaged in wireless work for nearly four years.

Home Life Shows Great Changes

THE young people who live in towns and cities, as well as those who live in sparsely settled sections of the country, have very little conception of the changed conditions of home-life from those of a hundred years ago. What we look upon as things which we cannot do without, would, a century ago, have been considered luxuries, attainable only by a comparative few.

If some of our Revolutionary ancestors were to "revisit the glimpse of the moon," and peep in at the home of their descendants, they would see things entirely strange to them, and mayhap think that the old fashions were good enough; while we, in our turn, would wonder how it was possible for people to get along in such a primitive fashion as did the Puritans and the Dutch settlers, says a writer in the Philadelphia Inquirer.

Up to the time of the Revolutionary War, there were no carpets on the floors of the houses of New York, Boston or Philadelphia, if we except the homes of the very wealthiest.

A sprinkling of sand over the floors was deemed sufficient, and was believed to give the room a clean and neat appearance. The early Dutch settlers of New York used on special occasions, when dinner was served in the parlor instead of the kitchen, to lay a piece of drugged cloth under the table to protect the carefully scoured and waxed floor.

It may be noted as singular that the first carpet which is known to have been used in New York city was the property of the notorious Capt. Kidd. It is said to have been of Turkish manufacture, so that it was probably a rug. It was valued at \$25, a big sum in those days, and was looked upon as a great curiosity. A little over a century ago tables were used only for the purpose of holding things to eat and drink. The great dinner table, which generally stood in the kitchen, had folding leaves, which hung down when not in use, and were propped

up by movable legs when it became necessary to enlarge the table. In 1720 small tables of Japanese ware were introduced. They were used for the tea service.

A leading article of furniture in the houses of our forefathers was the cupboard. It stood in the parlor, where there was one, or else in the kitchen, where it occupied the principal corner. It had shelves of wood, on which were displayed the best dishes of the household, without regard to what their quality was.

Cupboards were made in all styles, and, if the owner of one of them was well-to-do, it was provided with glass doors. But all of them were built so well and solidly, that they were handed down from one generation to another, while some of them are preserved to this day.

Anti-revolutionary chairs were of Russian leather, and adorned with brass nails in single and double rows. Others were of Turkey leather, and there were chairs with seats of matted rushes. Some had cushions of tapestry or velvet, trimmed with lace, and some were of black walnut with colored worsted seats, but all of them were straight-backed and none had been very uncomfortable.

The bedstead was the most costly piece of furniture in the olden-time. It was of wood and had a canopy from which depended curtains. It was the custom to sleep between two feather beds, and the pillows were also of feathers. The sleeping room of the heads of the household was always the best equipped room in the house. One thing is certain—that our forefathers, while they did not care for show, insisted on having everything of the most solid and substantial character.

The Town Must Move.

In connection with the construction of the American Falls reservoir on the Snake river in Idaho, legislative authority has been given to purchase, condemn and improve land for a new town site to replace the portion of the town of American Falls which will be flooded by the new reservoir. The project calls for a 50-foot dam, which would impound 2,000,000 acre-feet and make available for irrigation the entire water resources of the Snake river.