NEWS FOR THE CHILDREN

HOW WIRELESS SAVED A CONTRACT

A shipbuilding firm near Newcastle, England, recently saved a valuable contract by the help of wireless.

They had tendered for repairs to a big liner, and would have got the contract but for the outbreak of the strike. The ship was sent to Rotterdam to be repaired after the strike had broken out, but she had not reached there when the strike ended. The shipbuilders at once wired to the owners, and persuaded them to send a wireless message to the vessel The message was received, the liner turned back to Newcastle, and the contract was saved for the British firm

A NEW SOURCE OF HEAT

It is well known that the radio-active elements produce heat in the course of their radio-activity, and it has now been discovered that when the element titanium is subjected to a heat of 1700 degrees centigrade, its atoms begin to break up and give forth great heat.

The energy of the heat so produced is much greater than the electric energy employed, and a German engineer has patented a method of utilising the heat. It remains to be seen if it can be used for practical purposes.

WIRELESS WORKS A BEACON

One of the uses to which wireless will one day be put is the control of mechanism at a distance.

Although there have been produced some interesting examples of what can be done in this way, such as the wirelessly-controlled motor-car, airship, and motor-boat, none was found useful or reliable enough, until the introduction of the wirelessly controlled fog-signal. There are parts of the British coast where a fog-signal is necessary, but where, owing to the rocks, strong tides, and rough seas, it is impracticable to provide any form of signalling apparatus or lighthouse needing regular attention.

One such place is Roseneath Patch, a sandbank in mid-channel at the entrance of the River Clyde. This bank is marked by a beacon, but in foggy weather a sound warning is necessary.

After many experiments, the Marconi Company has succeeded in devising a wonderful apparatus which, worked by wireless signals, fires a gun every twenty seconds. The firing can also be stopped by wireless.

One of these signals has been established on Roseneath Beacon as a permanent safeguard for navigators. The wireless signalling apparatus is installed at Gourock Pier, a mile and a half from the Beacon. When fog is observed the transmitter is operated, and immediately the guns begin to boom out at the Beacon. When the fog lifts, a different kind of wireless impulse is sent from the transmitter, instantly stopping the guns.

This is indeed one of the victories of peace, and another triumph of the beneficent work of Senator Marconi.

SEA v. LAND

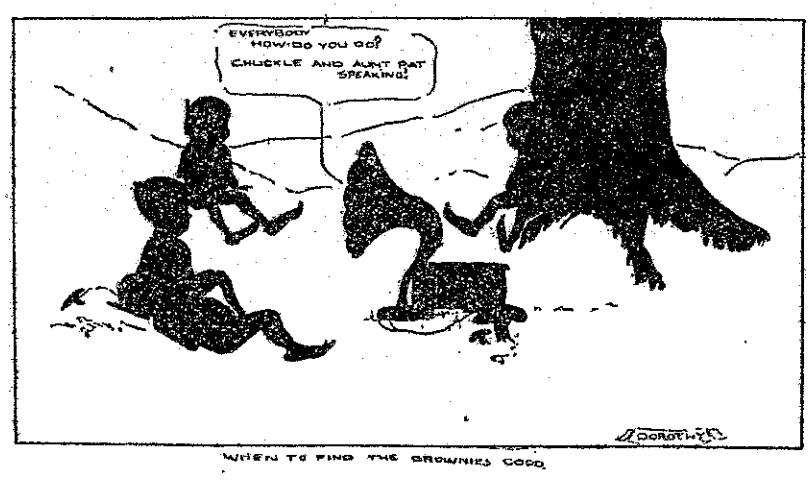
Said the turtle to the tortoise:
Turtle families have more toys
Than yours, for when one wishes
For a romp, the little fishes,
And the lobsters and the crabs,
And the funny little dabs,
Rush to play with them—but *you*
Live on land! What do you do?

DISMAL

Although I'm black I give you light,
Though cold, I give you heat,
And babies always seem to think
I'm very good to eat.

And yet you break and burn me,
Or keep me in a hole;
So altogether it's no fun,
To be a lump of coal!

Children's Sessions for Next Week



WHEN TO FIND THE BROWNIES GOOD

AT 1YA.

TUESDAY, May 8—Uncle George will entertain with stories, songs and birthday greetings. Cousins will also assist with bright songs.

WEDNESDAY—Here's our Uncle Tom with his numerous ditties and jokes. Always sure of a good laugh when Uncle Tom comes to Radioland. Yes, he will sing for us, too.

THURSDAY—Peter Pan will conduct the session, and guess who is assisting. The Edendale Boy Scouts. They will give choruses, mouth-organ selections and Hawaiian duos. Hurrah for a happy evening.

FRIDAY—Uncle Joe will be in charge. And our old friend "Old King Cole" will be there, and won't we be glad to hear him again. We can be sure of a merry hour and a hearty laugh. When King Cole laughs everybody has to laugh.

SATURDAY—Cinderella will amuse the nephews and nieces in Radioland with song and stories and birthday greetings. There will also be cousins giving piano items and songs.

AT 2YA.

MONDAY, May 7—Auntie Gwen and Uncle Jeff have a jolly hour for our little ones. Miss Lee's pupils will join in the fun, and sing you lullabies. There will be puzzles, stories and music—all that delights little ones.

TUESDAY—Big Brother Jack with his merry laugh will take you to joyland, that dear happy land of little people. School holidays are beginning so several little cousins have volunteered to help. Cousins Marjorie, Olive, Joyce and Maurice—What fun! Big Brother Jack is a happy, good-natured Brother.

THURSDAY—Uncle Sandy, the Uncle who creates beautiful rhymes for each little person who has a birthday. Some merry little serenaders will help him and together they will amuse you between 6 p.m. and 7 p.m. Cousins Marjorie, Zenocrate, and Muriel.

FRIDAY—Uncle Ernest with his thrilling travel stories. Where shall we go on May 11? Uncle Ernest is not giving away any secrets, but it will be to some land teeming with interest. He will take with him Cousins Joyce, Francis and Irene.' Up in the air to where?

SATURDAY—Auntie Dot and Uncle Toby with their barrel organ. Uncle Toby plays the organ and Auntie Dot turns the handle and takes care of the monkey. Felix, too, will be asked to sing and give reports as to his doings at the lighthouse. Cheerio all.

AT 3YA.

MONDAY, May 7—Listen to Uncle Jack to-night, and all join in the "Good-night" song: —

Sing a song at twilight,
When the lights are low,
And the flickering shadows
Softly come and go.
Whip-poorwills a'singing,
Robin's in his nest.
May our song at twilight
Lull you to rest.

WEDNESDAY—Uncle Peter and Mother Hubbard's good-night song:—

God that madest Earth and and Heaven
Darkness and light;
Who the day for toil hast given;
For rest the night;
May Thine angel guard defend us,
Slumber sweet Thy mercy send us—
Holy dreams and hopes attend us
This livelong night.

THURSDAY—Chuckle and Aunt Pat greeting you to-night in:—

"How do you do? Everybody,
How do you do?
When the skies are dull and gray,
And you're feeling just that way,
Isn't it nice to hear us say—
How do you do?"

FRIDAY—And Big Brother says to-night:—

"Sweet dreams children, Sweet dreams children, Sweet dreams children, We're going to leave you now."

SATURDAY—Uncle Sam, Aunt May and Aunt Vi greet you, and sing:—

"Hush! Here comes the dream man!
Now you children, run up the stairs,
Put on your nighties, and say your prayers;
Ride with Mister Dream man,
Till daylight comes again,
And see all the wonders of wonderland,
On the dream man's train!"

SUNDAY—Children's Song Service, conducted by Uncle Sam, who will be assisted by the scholars from St. Matthew's Sunday School, St. Albans.

AT 4YA.

TUESDAY, May 8—Could you sing lovely songs if you had neither dad nor mother? You would if you lived in a beautiful home set on top of a cliff, with a big-hearted woman like Mrs. Gerrard to mother you. Mrs. Gerrard is the matron of the Anglican Memorial Home for Boys, and she is bringing 30 boys to sing part-songs to the Radio Family. You simply MUST listen-in to-night. Part-songs, birthdays, jokes and riddles; and Big Brother Bill telling stories. One is about the way some wonderful little insects build their home, and fight for it when the time comes.

FRIDAY—Here we are again with boys and girls singing and reciting to the Radio Family. Yes, and some lovely mouth organ solos, too. "If you've had the blues to-day, why, listen in to 4YA." That's poetry while you wait, like the cobbler does the shoes. Aunt Sheila will be telling more about Helen of the queer adventures, and Big Brother Bill will find a corner somewhere. New riddles? Of course! Letters? Rather! The Radio Postie? I should certainly say so! And if there is anything else you would like, just write to 4YA and say so.

SEEING BY TELEPHONE

Seeing the person you are talking to while making a telephone call is no longer a possibility of the future; it is being done every day by Mr. J. L. Baird in his laboratory in St. Martin's Lane, London.

Mr. Baird can send from one room to another a recognisable image of the face of the speaker. The speaker sits in front of three intensely powerful electric lamps which illumine his face with brightness. The extreme image of the face is thrown by a lens upon an apparatus which picks out little bits of the image one by one with infinite quickness and throws them upon one of those wonderful little cells which respond to light and generate an electric current which is stronger or weaker as the light itself is stronger or weaker

These electric currents are sent through the telephone line to a lamp at the receiving instrument, the rays of which are recombined one after another, with equal rapidity, so that the eye actually sees an image of the person sitting before the first instrument.

The way in which the system is worked out is very technical, and Mr. Baird is now hard at work improving his instrument, which he aptly calls the televisor. If his efforts are crowned with success we may hope before long to be able to fit televisors to our instruments at home; that is, those of us who do wish to see the person at the other end of the line.

A COLOUR CAMERA

Something quite new has taken place in the realm of colour photography. In both France and Germany roll films have been manufactured which can be exposed in an ordinary snapshot camera, and when developed give pictures in natural colours far in advance of anything seen before

One of these films, known as Lignose, is being used quite freely on the Continent; it is as easy to use as an ordinary film, and very little more difficult to develop. The colours are marvellously natural and brilliant. Before many months have passed it will be possible to make prints on paper from the coloured films, also in natural colours.

INVENTOR OF RADIO VALVE.

The Faraday Medal has been awarded to Professor J. A. Fleming, inventor of the wireless valve.

He was Professor of Electrical Engineering in the University of London from 1910 until his retirement in 1927, and has played a notable part in the development of a great many applications of electrical science.

LOOSE-END LIMERICKS

(*Re-arrange words in italics to form rhymes.*)

WITH his hair an old fellow of Bute
Used to make the new strings for his *ulet*,
But now his head's *rabe*
And he's no hair to *prase*,'
He has to toot tunes on a *lufet*.

A HOLIDAY-MAKER from Bury
Fell into the Broads from a *rhyrev*,
When brought back to *dunorg*,
And asked "Are you *wrodden*?"
He replied rather damply, "Not *revy*."

A SILLY old fellow of Brighton
Left his home—and also the *ghilt no*,
So when he returned
He found something had *druneb*,
In fact his old homestead had quite *noge*.

THE "B" BATTERIES

WHEN TO DISCARD THEM.

Failures in wireless receivers are being traced daily to the discharge of the high-tension ("B") battery. The low-tension ("A") battery is always under observation, because, unless it is fully charged, the valves do not light to customary brilliancy. It is, therefore, a simple matter to judge when it needs recharging, by noting the condition of the valve filaments, although this method is not recommended as a scientific test. There is no corresponding crude test which can be applied to the high-tension battery, and its condition therefore often escapes attention. The only satisfactory method of testing a high-tension battery is by the use of a voltmeter. High-tension voltmeters are now so cheap that one should form part of the equipment with every valve receiver. It is worth remembering, however, that some of the cheaper high-tension voltmeters are badly designed, in that they impose a rather heavy drain on the battery undergoing test. They should therefore be used as little as possible, and left on the battery only long enough to obtain an accurate reading. It will usually be found that the pressure of a high-tension battery will fall off fairly steadily until it has dropped to about four-fifths its original voltage.

When Trouble Starts.

After that point is reached, the battery becomes noisy, and it is likely to be unreliable, as the voltage may fall without warning to two or three volts. Thus, it is generally wise to discard a high-tension battery when it has been used until its voltage has dropped to 36 in the case of a 45-volt block, or 18 in the case of a 22½-volt block. In ordinary circumstances the life of the battery to this point should be between three months and a year or more, depending on conditions of use. If a sudden battery failure occurs before the battery is about three months old, it is likely to be due to the failure of one section. Most batteries are now divided off by terminals into sections of different voltages, and these sections can be tested one after the other by the voltmeter. When the defective section is found it can be bridged over by a piece of wire so that it is removed from the circuit, and the battery will then probably last for many weeks longer, giving a slightly lower pressure, of course, than if one section had not failed.

THE Royal Society of Arts, London, W.C.2, is offering a prize of five guineas in a competition for the design of the best wireless cabinet.

MEASURE YOUR AERIAL

It is very often desirable to know what the natural electrical length of an aerial is. The only way to measure the length accurately is by means of a wave meter—and this is beyond most people, who are interested in radio. But there is a way to find approximately the electrical length, and this is good enough for most people.

The rule for single wire aerials: Take the combined length of aerial and lead-in from end of wire to set, divide by three, and multiply by 4.8, or, for an inverted L-type using four wires, multiply by 4.5. This gives the approximate electrical length in metres. For example:—

A single wire aerial is 100 feet long, has a lead-in wire 50 feet long. What is its electrical length

100 plus 50—equals 150, which is the total length in feet.

150 divided by 3—equals 50, total actual lineal length in metres.

50 multiplied by 4.8—equals 240, which is the electrical length of the aerial in metres, or, the wave-length the aerial will receive without additional adjustment or tuning. This aerial will not receive below 240 metres with the ordinary broadcast receiving set, although the aerial will serve quite well for ultra-short-wave reception with a short-wave receiving set.