LOOKEDS STUDY SPORTS

#### THE JUNIOR BRITISH WHIG

BIGGEST LITTLE PAPER IN THE WORLD

HUMOR PLAY WORK

#### THE SHORT STORY, JR.



lake, hidden in

"How wonderful that would be. Then to feel that his master's affection from the man's suit coat I'd be appreciated. They'd plant was diminishing. He became sullen. lovely shrubbery all along the banks. He avoided his master. But when he "terra," Latin for "earth." The dog bridges for me, all covered with vines. liking him, showed much affection for eagerness and courage with which it come and sit and look at me and talk about my beauty."

"So that's what you want," said a deal of attention to the baby. The cow who had come down to drink. "I can tell you you'd get pretty tired of it. I've been in a city myself. Was shipped through a city on my way to the farm, and it was all emoke. There was a river there, too, but it was muddy. No Silver Creek

"I don't care," said Silver Creek. "I'd like to see something of life Stylishly dressed city people—that's what I'd like to see. I'm sick of

But the cow did not hear. She had gone off hastily, for an automobile had stopped beside the fence near the dog saw this, and while his master creek, and through the fence came and mistress paid no less attention to full, the ears, of moderate thickness, half a dozen people carrying baskets. him than before, the dog felt he was are V-shaped and small, the nose Minnie, just like a park. Good a place came into his face. He loathed his terrier's neck is muscular and not for a picnic as any. Kinda nice and food. Nothing contented him. He throaty. Its shoulders are long and

Silver Creek bubbled with pride. "Just like in a park!" The people sat down and ate their lunch. Then into the creek went the papers and benana peelings, and all the refuse. Silver Creek was indignant.

Then the boys went wading and stirred up the clear water. Silver Creek was angry. They found rocks and threw them into the water. They dug holes in the bank to make "caves." Silver Creek fumed. After while they went away, throwing the bank trampled and torn up. Along came the cow. She looked at the stream. "Bah!" she said, "I can't

drink here. It's just like in a park."

Silver Creek murmiured mournfully.

#### STORIES ABOUT DOGS YOU KNOW :

THE TERRIER

strongly to man as the terrier. It A man was walking down a dark wants to be the constant companion He had been out for an evening's of its master, and as such becomes stroll with his terrier which was playlife. Nothing to very sensitive to the least look or ing along at his side. On coming to see but this old word from him. The dog acquires a of the selection of the second country-side, and jealous disposition and will become angry and sullen at any sign of affection shown for another animal or a

a terrier that was very fond of him. The man married. His terrier did not "Wouldn't I love to be in a city like his master's wife. Immediately saw that his mistress, instead of dis- is most remarkable, perhaps, for the Then a child was born. Of course to the fox. the mother and father paid a great



drive 'way out here. Let's stop here, fused to be coaxed out even for his ing great breadth, is deep. The terrier's courage is equally as loyal pal.

strong as its affection. The following No breed of dog attaches itself so true instance illustrates this fact. of the shadows and attacked the man with the dog, hitting him over the head with a heavy club.

The highwayman was about to ktrike another blow but before he could do A certain English gentlemen owned throat and sunk his teeth. The dog held on till his master had time to regain his senses and start running up the street to safety. Then the dog park, though!" gurgled Silver Creek. after the marriage, the animal seemed his master, but first he tore a piece

> will attack all quadrupeds from rats There are numerous varieties of terriers-the Airedale terrier, Irish terrier, Skye terrier, bull terrier, etc., but the fox terrier probably is the variety most popular and best known among boys and girls of to-day. The fox terrier not only is a good sporting dog.

> but an excellent house animal. It is

not a large dog-the preferred weight

being in the neighborhood of seventeen pounds. There are two types of fox terriers, the smooth and wire-haired. They are identically the same, except in their coats. Both types are of the same build. The skull is flat and modsaid one, "this is a swell place, being slighted. A look of resentment black, and the eyes dark in color. The sloping and the chest, instead of hav-





#### Lord and Lady Byng on their Way Across Canada

Upon their arrival in Winnipeg, during their Western tour, Lord Byng and his party posed for a battery of camera-men in front of the Governor's private car at the C. P. R. Station. In this group are, left to right Godson, Mr. Justice Perdue, Lady Aikins, Lady Margaret Boscawen, Baron Byng, Major the Hon. H. J. W. Jolliffe, Lady Byng, Hon. T. C. Norris, Premier of Manitoba, Sir James Aikins, Lieutenant-Governor of Manitoba, General H. B. D. Ketchen, and Acting Mayor Fowler.

THE PLAY MAN'S GAMES Copyright 1922



BASKET THREE DEEP till vacation comes. Gee, won't I be or a aviator. ad! I'll say, boy. I asked Miss Well we have been having lots of who is "it" stays "it" until he tags dredwing she didn't know what I we played Basket Three Deep. You know what she means by dreaming for I didn't ever go to sleep in school like Tubby did. Mother was up to school and Miss Major said I was a same, but the two partners face each. Sunday school or anywhere you try school and Miss Major said I was a same, but the two partners face each Sunday school or anywhere you try breat dreamer and mother said oh other and have hold of hands. Then Basket Three Deep and tell me how

be I will, but if I didn't stop good weather and we had one where some one. yes I have noticed that too, but may one kid is "it" just like in Tag and you like it. Sneezy. be he will ourgrow it. Can you best one is the ne to be chased. Now dreaming and all I'm doing is think- wants to save himself he ducks in

player like Tris Speaker or Ty Cobb. the hands of one of them. The one or about being a captain of a ship, whose hands he grabs is his partner

Your friend, yours truly.

ing new : would like to be a ball between any two players and grabs | Copyright, 1922, Associated Editors

# RADIO EXPLAINED INSTRUCTOR NEW YORK Y. M.C.A. RADIO SCHOOL

MULTI-STAGE AUDIO FREQUENCY AMPLIFICATION.

If the signal strength after rectification of the oscillatione cannot be brought up to sufficient value in one amplifier tube it is necessary to use more in what is known as cascade connection. The connections are shown in the circuit diagram, which is, no doubt, quite familiar to "!!. Two stages of amplification are shown after the detector tube, but three may be used quite nicely if care is taken. If the voltage transformation ratio of the first transformer is eight the voltage variation: applied to the grid of the first amplifler tube are eight times greater than the voltage from the detector. In this case the negative grid bias in this first tube may be one volt with a < rtain cube. It would at any rate be comparatively low, and the voltage drop across a portion of the filament rheostat might be used to advantage. Assuming that the tube has a voltage amplification constant of five, and the next transformer a step-up ratio of nine, the voltage "ariations applied to the grid or the second ampliffer tube are 320 times as great as the voltage from the detcetor and considerably higher than the voltage variations applied to the grid of the first amplifier tute. In the plate circuit, then, there are audio frequency variations 1.600 times greater than those in the plate circuit of the detector tube because the second an.pliffer tube is also assumed to have an amplification factor of five. With a fair signal voltage applied to the grid of the detector tuto there should be a very good response in the head telephones, if connected into the plate circuit of the second amplifier tube. The negative bias

amplifier tube might have to be somewhat higher than one volt. however, for best results with the average tube. The plate potential might also have to be increased over that of the first amplifier tube. In prac ce, however, it is quite common to make the grid bias potential the same in both cases and use one plate battery, the sar e plate potential, for both amplifier tubes, even though this does not always give maximum possible results. The simplification of operation is presumed to compensate for any loss in efficiency which mi t occur. In some cases, though, a slightly variable grid biasing voltage may be secured, and it can often be made great enough for practical pur-

Because a certain audio frequency transformer has an extremely high transformation ratio it does not necessarily follow that it is the best to use with a given tube. The transformer should be designed especially for the tube with which it is t he used. Since all but the last amplifler tube normally function as voltage amplifiers, it is especially desirable to have a transformer whose primary impedance at average frequency at least equals the plate to filament resistance (output resistance) of the tube it is used with, If head telephones are used, it is generally fou that there will be sufficient power in the plate circuit of an ordinary amplifier tube to operate them, particularly if their impedance equals the internal resistance of the tube at the average audio frequency. If a loud speaker is necessary, however, power amplification, instead of voltage amplification, is required.

# APPARATUS AND DEVICES

By RALPH BROWN, RADIO ENGINEER

A SUPER AUDIO FREQUENCY

voltage on the grid of the second

There are not a few audio-frequency amplifying transformers upon the market which are not especially designed for radio telephone reception, although quite



satisfactory for telegraph signals. In radiotelephone reception the transformer is required to operate well on a very wide range of audible frequencies, and, therefore, must be carefully designed with that object in view. There is a certain combination of secondary to primary turns ratio, structure and quality of the core lamimations and capacity, which gives | stages.

Kemptville ..........Sept. 21-22

Merrickville ...... Sept. 5-6

Ottawa (Central Canada) Sept. 8-18 

Perth ..... Sept. 2-4

Picton ...... Sept. 19-22

Shannonville ...... Sept. 16

Stella ...... Sept. 26 Stirling ..... Sept. 14-15

Itching, Bleeding, or Protruding Piles or Hemorrhoids. No surgical operation required. Dr. Chase's Ointment will relieve you at once and afford lasting benefit. 60c a box; all dealers.

AMPLIFYING TRANSFORMER the highest amplification for the

wide range of frequencies. The transforme. illustrated is designed wit' the above points in mind and possesses an agreeable freedom from distortion of the higher and lower audible frequency notes. The frequency band is wide, so that no particular note is amplified to a much greater extent than any other. High amplification without distortion is had at all the most used frequencies of the musical scale. The transformer is the result of decherate and very painstaking development.

No shielding is necessary with this transformer because of its design. The core is closed, of course, and the coils are wound upon a middle leg. The coils are well impregnated. The dimensions are as follows: Height, 3 inches; width, 2 inches; distance between outer edges of feet. 2% inches. The mounting holes in the feet are 2% inches, center to center, and are 5-32 inch in diameter.

It has been found that this transformer gives an audibility amplitication of 38.6 times, or an energy amplification of 1.490 at 1.000 cycles frequency when used with the usual amplifier tube, having an output resistance of 20,000 ohms. Somewhat greater amplification is had with tubes of considerably higher output resistance. but the audibility amplification range is more varied. It is said that this particular transformer when used in one stage of amplification will give better results than some others used in two

Will readers interested in these radio articles kindly communicate with the editor by mail?

#### Toronto ...... Aug. 26-Sept. 9 DATES OF FALL FAIRS. (Canadian National) Wolfe Island ......Sept. 26-27

Convincing Proofs. Bancroft ...... Sept. 26-27 be found in our Real Estate columns. Belleville ..... Sept. 4-6 Many remarkable bargains are offer-Brockville ...........Aug. 22-24 homes at prices quite within the Centreville ..... Sept. 7-8 reach of the average purse. There Cobden .... Sept. 13-14 are many varieties, farms, big Cornwall ...... Sept. 6-9 houses, little ones, old ones, new Delta ...... Sept. 11-13 ones, bungalows, summer places, Demorestville ...... Sept. 30. homes and homes. Go see a few of 



ESOD.

Until, also, she tried to swim;
The water washed off her disguise
And thus the Gay Dog was put wise)

Moral-Get colors that are fast, These class .... simply will not last!

-Esop, Jr.

# VULCANITE SLATE SURFACED ROOFING

Four-in-One Slab Shingle ..... \$7.50 per sq. Hexagonal Slab Shingle ..... \$8.00 per sq. Rolls, 32" wide ..... \$3.90 per sq. The highest type of "Beaver Quality Roofing and surfaced with natural colored Crushed Slate, Red or Green.



NEW SKIFFS and FISHING BOATS FOR SALE H. KNAPP, BARRIEFIELD

### Sowards Keep Coal and Coal Keeps Sowards

all kinds of Cut Wood

PHONE 155.

UPTOWN OFFICE: McGALL'S CIGAR STORE. PHONE 811.

## DAINTY CAFE

The place where dining out is truly a delight

PRINCESS ST.

OPPOSITE BIBBY'S

#### HEAR IT WHEN IT'S NEW



You will know the baseball scores and latest news every evening with a radio receiving set.

Let us install a complete receiving set or if you wish to build your own, get our reasonable prices on parts.

Come in any time-Open evenings. Prompt Service on Mail Orders.

# Canada Radio Stores

RIGHT GOODS AT RIGHT PRICES 26914 PRINCESS STREET. RADIO SAAY

# FLASHLIGHTS

FOR SUMMER CAMPERS RADIO SUPPLIES for the BOYS' SUMMER HOLIDAYS HOME WIRING

H. W. NEWMAN ELECTRIC CO.

Phone 441.

167 Princess Street

