

**THE "BEST" FOOT POWDER**

- Anti-Swell
- Anti-Pain
- Anti-Tired
- Anti-Perspiring
- Anti-Corn

DOES ALL AND MORE THAN ANY OTHER FOOT POWDER  
25 Cents

**L. T. Best**  
Druggist

**FOR SALE**

- \$1200 Frame, 6 rooms, toilet, central, deep lot.
- \$2200 Frame, 6 rooms, toilet, electric light and gas.
- \$3200 Frame, 6 rooms, electric light, garden.
- \$2600 Frame, 7 rooms, electric light, gas and furnace, central.
- \$2800 7 rooms, frame, 3-piece bath, electric light.

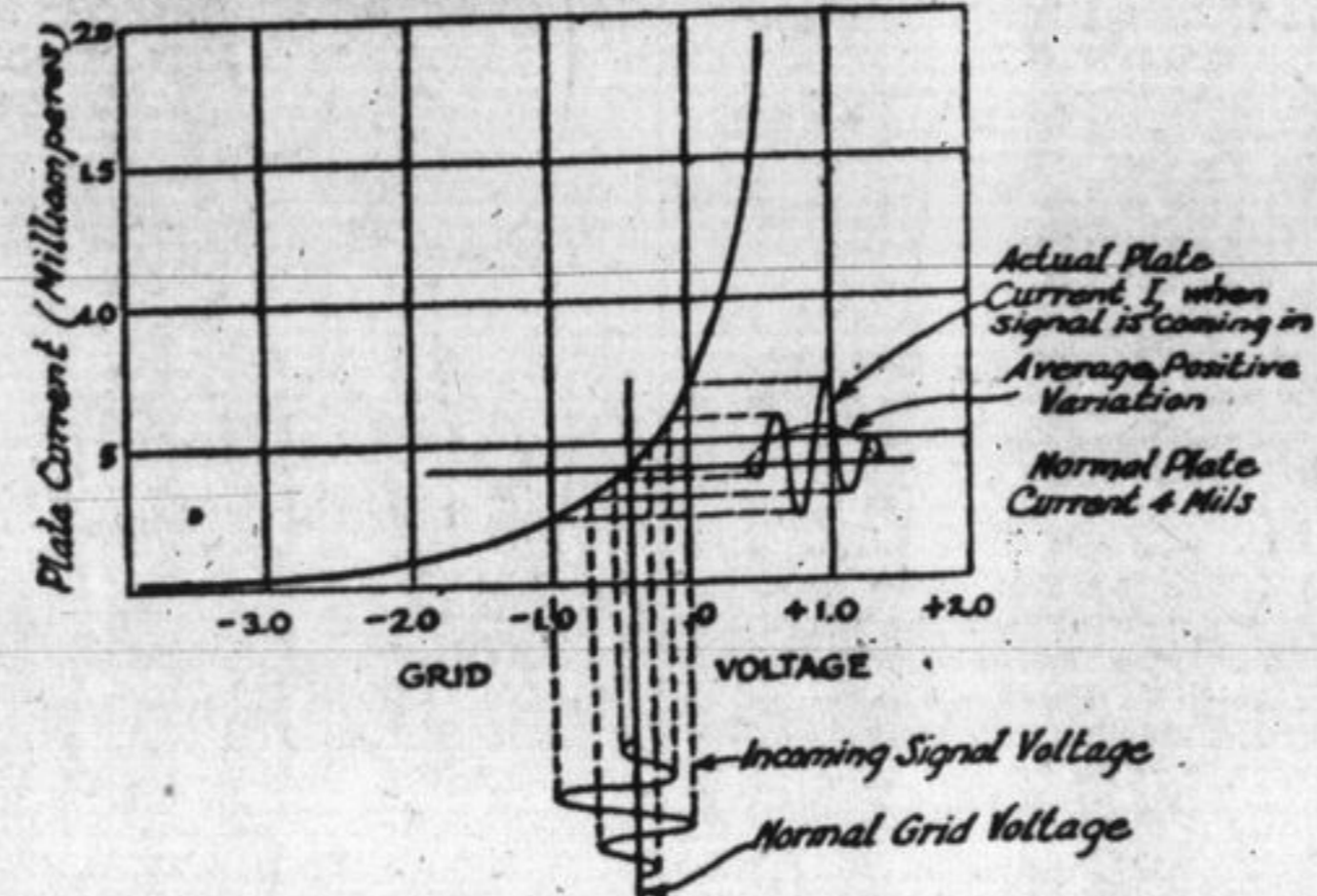
**Bateman's Real Estate**  
111 1/2 BROCK ST., KINGSTON  
Telephone 1925F.

**Genuine Amber Strings**

We are showing some very attractive necklets of **GENUINE AMBER**

The price of this very attractive Ornamental Bead is steadily coming down.

Some of these Strings suitable for Young Girls, are priced as low as \$4.00 Others larger, and in greater lengths, up to \$25.00.



**How A Tube Detector Works.**

**1. By Grid Bias.**  
Most readers of "Current Radio" do not seem to be acquainted with the fact that there are two common methods of obtaining detection with a three-element vacuum tube, nor how detection in each case is accomplished. It is the purpose of this article to describe "one of the methods—detection by grid bias—and tomorrow we will describe the other—by use of grid condenser and leak—which is the more common practice.

Remember that the incoming signal is an alternating current oscillating at super-audible frequencies. In order to make these signals operate a pair of headphones, we must convert the alternating current into direct current, and that is what the detector does.

Let us consider Fig. 1. Do not be alarmed by the appearance of apparently complicated "curves" because they are really quite simple to understand once the fundamental principles are grasped.

In Fig. 1 we have a curve (A-B) which shows the effect of the grid voltage on the plate current. As you may know, the heated filament in a tube throws off electrons which act as "carriers" for the "B" battery current from the plate to the filament.

The voltage impressed on the grid has a very decided effect on the amount of current that may flow over this carrier path of electrons, and our diagram shows a sample curve. Thus it will be seen that with the grid about 1 volt "negative" the plate current will be about one-fourth of a milliamper; at "zero" grid voltage the plate current will be about halfway between .5 of a milliamper and 1.0 milliamper. Notice that the curve has a rather sharp bend at the bottom. The sharper this bend is the better detector the tube will be when operated as a detector by the grid bias method.

For detector action with grid bias we operate the tube just where the bend occurs, as shown. Now any incoming oscillations, such as shown by the "incoming signal" will vary the grid voltage, and in doing so will vary the plate current. But if the tube is operated on the bend, you can see, by projecting the signal oscillations up on the curve, "A-B", that a kind of lop-sided amplification takes place.

The line designated "normal plate current" is the plate current that would maintain if the grid current represented by the vertical line "X" remained constant. But the incoming oscillations extending on each side of this line cause—due to the bend in the curve A-B—the increase (I) in the plate current to be considerably greater than the decrease (D) below the "normals" line. This results in a resultant positive variation, shown by the dotted line, and this is heard in the phones.

In other words, the plate current both increases and decreases in the headphones, but the increase is so much greater than the decrease that the general effect is that of an increase, and this will exert an increased pull on the headphone diaphragm which can be heard as the signal.

Soft tubes usually have sharper "bends" than hard tubes, which is one of the reasons why a soft tube often makes a better detector when operated by this "bias" method. In fact, some hard tubes have a curve which is almost a straight line, and has little if any bend.

**RADIO BROADCASTING**

The following is a list of radio stations and their broadcasting programmes which may be heard locally on Friday:

- KDKA (920) Pittsburgh, Pa.**  
11.15 a.m.—Concert by Daugherty's orchestra.  
2.15 p.m.—Baseball scores, innings by inning.  
5 p.m.—Baseball scores.  
5.30 p.m.—Organ recital.  
6 p.m.—Baseball scores; dinner concert.  
6.30 p.m.—"Let's hear some more from Uncle Wiggleley"—the children's period.  
6.45 p.m.—News bulletins.  
7 p.m.—Baseball scores.  
7.40 p.m.—"Stockman" report on primary livestock markets, including grain, feed, cotton, sugar, wool and produce.  
8 p.m.—Concert by the KDKA Serenaders, saxophone quartette and the Davis Male quartette.
- WGY (380) Schenectady, N.Y.**  
11.45 a.m.—Weather forecast.  
1 p.m.—Music and household talk.  
5.30 p.m.—Stories for children.  
6 p.m.—International Sunday school lesson.  
7.15 p.m.—Baseball results.  
7.30 p.m.—Concert by the New York Philharmonic Orchestra.  
10.30 p.m.—Musical programme by pupils and faculty of Round Lake, N.Y., Summer School of Music.
- WRZ (337) Springfield, Mass.**  
5 p.m.—Dinner concert by the W BZ Trio.  
6 p.m.—Results of games played by the Eastern, American and National leagues.  
6.05 p.m.—Market reports as furnished by the United States Department of Agriculture at Boston.
- WJZ (455) New York City.**  
4.30 p.m.—Hotel Astor Organ recital direct.  
7 p.m.—Ernie Golden's McAlpin roof orchestra.  
7.30 p.m.—Financial developments of the day.  
7.30 p.m.—Ernie Golden's McAlpin roof orchestra.  
8.30 p.m.—New York Philharmonic orchestra.  
10.30 p.m.—Harcold Stern's Belleclair Towers orchestra.

Complete radio programmes sold at Canada Radio Stores.

The slayers of Mrs. Rosalie Evans have been arrested in Puebla state, Mexico.

**WHY THE WEATHER?**

**DR. CHARLES F. BROOKS**  
Secretary, American Meteorological Society, Tells How.

**Gutters and Sewers for Downpours.**  
In planning gutters and sewers for a town, the engineer must consider a number of points. He will study the rainfall records to determine the maximum fall which is likely to occur in periods of five or ten minutes, or an hour, and must also consider what per cent. of that will necessarily run off. Some cities in fairly arid regions may be afflicted with cloudbursts, and so may require larger gutters and sewers than cities where the average rainfall, though greater, is more evenly distributed. Thus Cheyenne, Wyoming, has gutters three feet deep. In towns of northeastern Porto Rico, where the rainfall is heavy, gutters are so deep that they have to be bridged for the entrance of every house.

Besides rainfall, the steepness of slopes and imperviousness of soils or surfaces are important factors in determining runoff, and hence the sewer requirements. W. E. Sullivan, of Cincinnati, has found that on a naked hillside area, the immediate run-off is usually 10 to 20 per cent. of the rainfall, the higher percentages prevailing where the hillside is quite steep with scanty soil covering underlaid rock. In a suburban district 30 per cent. of the water may fall to sink into the soil, while in a compact residential district, with a house on every lot, the run-off is found to be 40 per cent. of the rainfall. In factory areas as much as 80 per cent. of the rain must often be carried away by the sewers. Indeed, in a mercantile district of Cincinnati it was found from actual sewer gaggings that the run-off was 85 per cent. of the rainfall. The increasing percentage of run-off as cities become built up overtaxes early sewer systems and makes larger ones necessary.

**Brockville Water Safe.**  
Brockville, Aug. 7.—Bacteriological report of the Brockville water supply, following an examination at the laboratories of the Provincial Board of Health at Toronto, fails to reveal the presence of any bacilli. The quantity of chlorine deposited daily—fourteen pounds, was confirmed by the board and instructions given to continue the deposit of such a quantity.

**Come With Rotary.**  
To Gananoque Friday night. Str. Waubic moonlight excursion. Soccer: All-Toronto 4, Corinthians 2; All-Toronto 1, Montreal 0.

PROBS:—Friday, southwest winds, mostly fair and warm.

**FRIDAY!**

**AT STEACY'S**

In conjunction with our August Sale of Home Furnishings we offer as an added feature for to-morrow morning—

**Double Discount Stamps!**

From 9 to 1 O'clock

Shop early to-morrow and take advantage of this sale event as well as participating in the following special attractions.

**Genuine Gold Seal Congoleum Art Rugs**

AT THE LOWEST PRICES EVER QUOTED!

50 of these handsome, guaranteed Floor Rugs so easy to clean and so fine in appearance. In a full range of sizes, patterns and colorings:

Size 3x9 ft.	Reg. \$4.50	<b>Sale Price \$3.48</b>
Size 4 1/2 x 9 ft.	Reg. \$6.75	<b>Sale Price \$4.98</b>
Size 6x9 ft.	Reg. \$9.00	<b>Sale Price \$6.95</b>
Size 7 1/2 x 9 ft.	Reg. \$11.25	<b>Sale Price \$8.48</b>
Size 9x9 ft.	Reg. \$13.50	<b>Sale Price \$9.98</b>
Size 9x10 1/2 ft.	Reg. \$15.75	<b>Sale Price \$11.48</b>
Size 9x12 ft.	Reg. \$18.00	<b>Sale Price \$12.98</b>
Size 9x13 1/2 ft.	Reg. \$20.25	<b>Sale Price \$14.48</b>
Size 9x15 ft.	Reg. \$22.50	<b>Sale Price \$16.98</b>

Take advantage of these unprecedented low prices and secure your Fall requirements to-morrow.

**NEW FALL COATS**

You need one of these Fall Coats right now for immediate wear, and you will find them perfectly suitable well into the winter. Beautifully made of lovely soft fabrics with and without fur. They are certain to appeal to women of discriminating taste.

AT POPULAR PRICES THROUGHOUT!

**STEACY'S - Limited**

"Kingston's Shopping Centre"

**A REDUCTION**

The Civic Utilities reduced the price of gas for cooking a short time ago. We have a Gas Range to meet every pocket.

- (A) 3 Burner Low Oven Gas Range \$22.00
- 3 Burner Low Oven Gas Range—large burners . . . . . \$30.00
- " 3 Burner Low Oven Gas Range—large burners, N. P. trim . . . \$33.00
- " 4 Burner Low Oven Gas Range—large burners, enamel top . . . \$40.00
- " 4 Burner Cabinet Range, N. P. top and white enamel . . . . . \$85.00

**McKelvey & Birch, Limited**

General Contractors, Heating Specialists, Steam Fitters and Plumbers, Joiners of Plumbers and Gas-Fitters' Supplies, Stoves, Shelv, Heavy and House Furnishing Hardware, Tools, Oil, Be: Supplies, Sheet Metal and Tin Work; Electric work; Painting and Paper Hanging. /special work of all kinds undertaken.

**WE SERVE GOOD MEALS**

Good meals served to your liking. EVENING PARTIES given first class attention.

**THE VICTORIA CAFE**

354 King Street. Hug Lee and Gan Lee, Props. Telephone 762.

**No Week-end Complete - without Laura Secord CANDIES**



138 PRINCESS STREET

A Michigan youth dislocates his neck in diving in Lake Erie and died shortly after at Simcoe.

Five men believed to be principals in a race track swindling gang, are under arrest at Windsor.