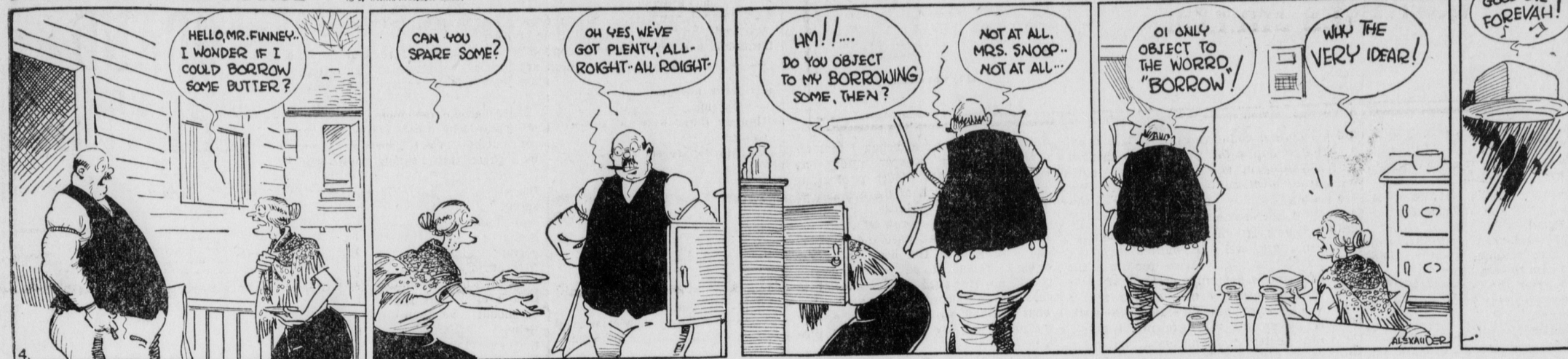


FINNEY OF THE FORCE

By F. O. Alexander



MICKIE, THE PRINTER'S DEVIL

By Charles Sughroe



It Never Comes Back



Remedies Recommended to Cure Noise in Sets

Disturbances in radio sets caused by electrical appliances, and other noises that reflect back into the electric light lines, are attracting the attention of the committee on inductive coordination of the National Electric Light association and the Radio Manufacturers' association. The committee has brought out two important points that should be given very careful consideration by engineers working on sets to be operated direct from the light socket without intermediate batteries. These problems are fading, due to voltage fluctuations, and noise.

The electric light companies are naturally interested in keeping the voltage of their lines as uniform as possible. There is, however, an economic point beyond which it is impractical to go. While the voltage fluctuations often are kept within 3 per cent, they frequently fluctuate 5 per cent. Five per cent is scarcely noticeable at a light socket and accordingly, has been taken to represent good practice.

A radio set operating directly from the light lines must be adapted to a 5 per cent voltage fluctuation from normal. This means that there will be a total swing of 10 per cent. The lighting companies have experienced considerable difficulty in the way of complaints, due to the volume of the set swinging in and out with these minor voltage fluctuations. The coordination committee, accordingly, asks that engineers designing socket power sets give consideration to ballast lamps or some other device that will take care of fluctuations. The other alternative is to have the set designed so that a fluctuation of this sort will not noticeably affect the volume. Most of the current design is along the latter line.

With a battery-operated set, disturbances on electric lines get into a radio set only through radiation. When, however, sets are connected directly to the light socket, minor disturbances that will not cause enough radiation to be noticeable may get into the set and cause a bothersome background of noise. This can be taken care of very readily by suitable filter arrangements. The power companies are taking active steps to reduce this noise level, but much of it is beyond their control, and the set manufacturer must provide his own remedy.

FOR THE NOTEBOOK

Excessive voltage or defective insulation will cause condensers to break down.

The average radio receiver is used three hours a day, or about 1,000 hours a year.

An antenna from 40 to 50 feet high is the best for escaping great barrages of static.

Light machine oil will remove finger marks from the panel of a receiver and control knobs.

Sulfate begins to form when a battery is in a run-down state.

Motorboating is caused by residual ripple in the plate voltage supply.

More than one set can operate from the same aerial wire with the use of special circuits.

A high inductance choke coil is effective when it is connected in series with a grid leak or a plate coupling resistor.

Low "C" batteries cause many troubles and noises in the radio receiver. They should be renewed at least every four months.

The simplest remedy for fading is to have a variable volume control at the receiving end.

The tube is the weakest element of the set.

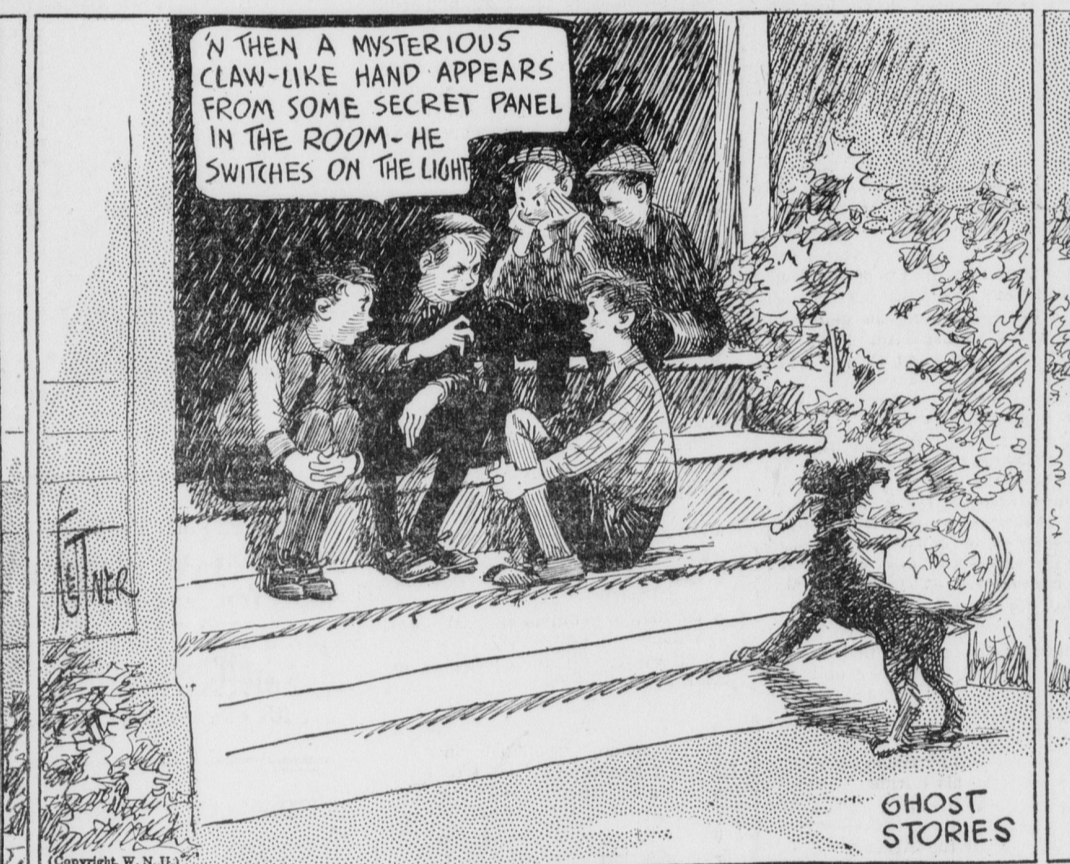
Mounting Resistors for Better Heat Radiation

In laying out the power resistors in a plate supply unit there is usually a distinct advantage to be gained by mounting the resistors vertically. This results in the use of minimum baseboard space and, what is more important, in better heat radiation. The radiation from a body depends largely on the temperature of the body and the temperature and velocity of the surrounding air. When the resistor is mounted vertically there is a "stack" effect which results in accelerated air circulation and hence better radiation of the heat. The term radiation is really not accurate in this sense, since the heat loss due to the air circulation is technically called "convection," but the former term has come to connote all losses, including those due to convection and conduction.

Grid Suppressors for Oscillation Control

In the conversion of receivers using grid suppressors, for the control of oscillations, from battery to A. C. operation it is important to properly adjust these to insure maximum stable amplification. In the usual circuits it is possible to decrease the resistance 30 or 40 per cent, which results in improved amplification, particularly at the high frequencies, and better selectivity characteristics at these high frequencies.

Events in the Lives of Little Men



Our Pet Peeve



THE FEATHERHEADS

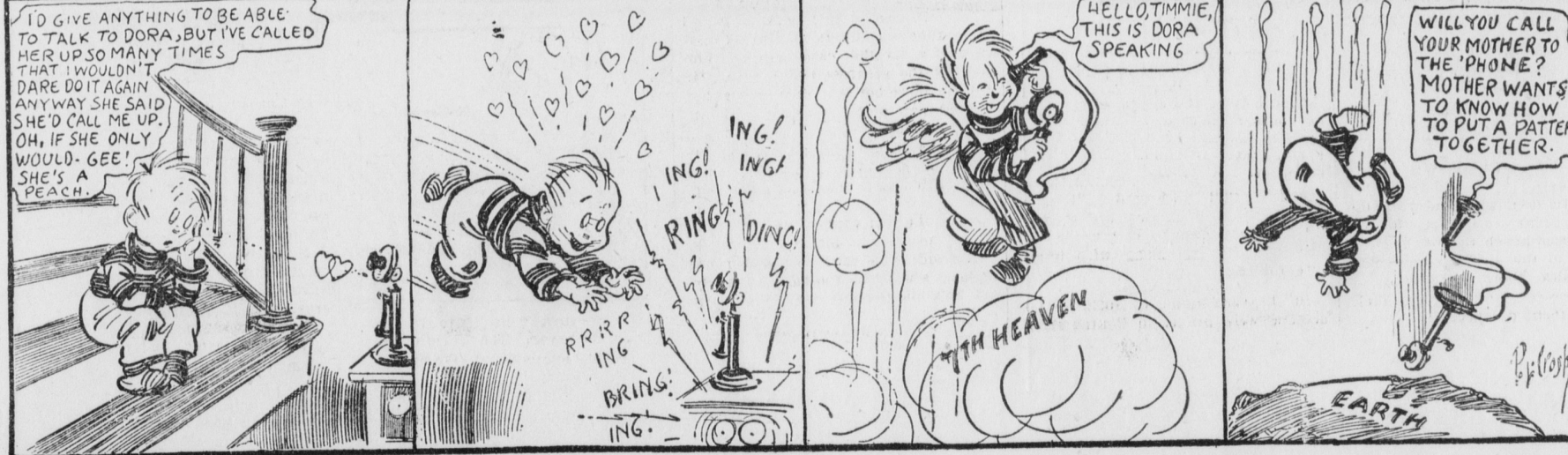
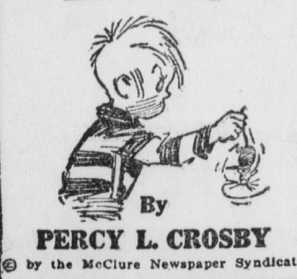
By Osborne



One of Those Affairs

The Clancy Kids

The Only Way to Win Her, Timmie, Is to Give Her a "Ring"



Headaches, or any of Bayer Aspirin can physicians prescribe is free use, for it heart. Every drug- n't fail to ask the Bayer. And don't take it says Bayer, with printed in red:



Effects of Method of Intipation

It is to live until the benefits of the diet in keeping the bowels regular and free of constipation. The natural laxative of the Indian will like the gentle natural laxative of 272 Pearl St., N. Y.

Indian Pills

Full cut of material for all sizes. \$1.45

Air Survey

Further map of the discovery of an active volcano previously appeared the maps because as in it, says Popzine. More than of territory were in the Alaskan country.

School is an insti- ed in this coun- but it now has 0,000 pupils.

the victim of cir- he is too lazy to d.

Baby-Three Dangerous



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By PERCY L. CROSBY