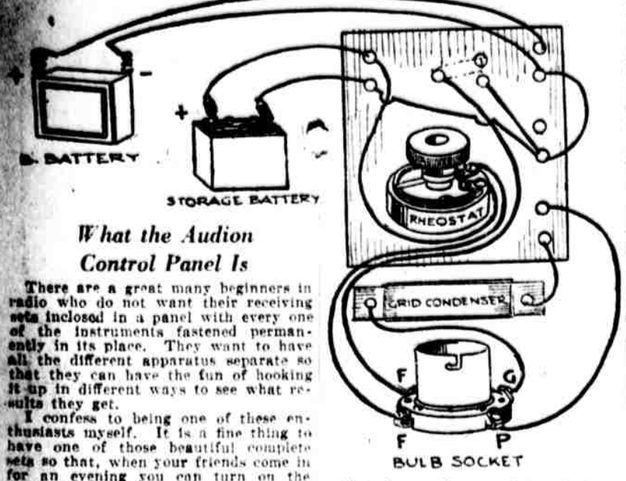
RADIO IN THE HOME

By HENRY M. NEELY



This shows the complete "hook-up" for the audion bulb control panel with the two batteries necessary for its operation. The illustration makes clear the method of wiring and the article explains its operation

What the Audion Control Panel Is

There are a great many beginners in radio who do not want their receiving sets inclosed in a panel with every one of the instruments fastened permanently in its place. They want to have all the different apparatus separate so that they can have the fun of hooking it up in different ways to see what results they get.

I confess to being one of these enthusiasts myself. It is a fine thing to have one of those beautiful complete sets so that, when your friends come in for an evening you can turn on the "juice" and give them a radio concert. But there is an indescribable joy in fussing around with new hook-ups and trying every one that the latest radio magazine publishes or that your neigubor has copied from one of his friends.

That is why I recommend putting each separate piece of apparatus into its own little panel, six inches by six. This makes it much easier to hook up in a new way and the result looks almost as neat as a regularly designed complete set.

But whether you adopt this "unit" system or not, there is one part of the instrument that should by all means be mounted on a panel. This is the control system for your audion bulb. There are several instruments that go to make up this control and they are always connected in the same way, no matter what kind of book-up you try, so having them permanently in this form saves the trouble of wiring them together each time you change the set and avoid the chance of making mistakes.

Let us examine the little panel which we described in the last article of this series.

Take the back view of the panel, as shown in the illustration. You will find it hooked up to two batteries. The storage battery, known as the "A", is the one which supplies the current of electricity to light the filament of the bulb. There are many makes of battery for this purpose and most of the ordinary batteries used in automobiles will do very well. All, however, will not. I have one very fine storage battery which will work beautifully on an automobile, but when I hook it up to my audion bulb it makes such a crashing and "frying" noise in the phones that I cannot hear signals. Before buying a battery be sure to investigate and ask some one who already has a set what kind of battery he uses for his "A."

The "B" battery is a series of little dry cells such as are used in flashlights. Each one of these cells has a strength of one and a half volts and ten or twelve of them in series gives ten or twelve times that voltage. Since the rage for radio has swept the country, manufacturers have put these dry cells into neat little blocks molded into an insulating substance. This is by all odds the best way to buy them.

These blocks of "B" batteries come in two sizes—22½ volts and 45. Some makes of bulbs will operate on 22½ volts; others require more. I make it a practice always to buy the 45-volt size and put it on a six by six panel-unit with a switch which enables me to take out 22½ volts and then, by steps of 1½ volts each, any strength up to 45. With that I can try any bulb I want in my set. And a little variation in this "B" battery strength will often give a great improvement in signals.

The rheostat is a continuous coil of special wire usually in a circle with a switch blade that revolves over its edge, touching any part of the circle desired. This wire offers a very high resistance to electric currents, so much so, in fact, that, if the entire circle is put in your "A" battery circuit, none of the current will reach the bulb.

The switch revolves over this resistance wire, gradually including less or more, as you desire, and so regulating the brightness at which your bulb burns. This brightness is important and has much to do with the clearness of the signals received.

Always operate on the least brilliancy that will give you satisfactory signals.

It is a great mistake to force the filament of the bulb. Howling and whistling in the phones are usually a warning that you are putting too much current into your filament.

You will notice, in the diagram of the back of the panel, there is a wire from the minus binding post of the "B" battery to the minus of the "A." Almost all hook-ups call for this connection so you are safe in making it a permanent one on the back of the board. The rest of the illustration is self-explanatory.

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Today's Programs

Philadelphia Station (WFI)
Strawbridge & Clothier

1:16 P. M.—Late news items from Public Ledger.
3:30 to 4:30 P. M.—Concert. Tenor solo, "Crossing the Bar," Buck; John Owens; violin solo, Harre Schmitt; bass solo, "Blow, Blow, Thou Winter Wind," Sargent; John Vanderslice, tenor, solo, selected. Violin Duet, violin solo, Harre Schmitt; duet, "Calm Is the Night," Goetz; John Owens, tenor, and John Vanderslice, bass; bass solo, "On the Shore," Neidlinger; John Vanderslice.
5:30 to 6 P. M.—Baseball scores.
6:30 P. M.—Radio talk by Lewis P. Ketcham, Jr.
8:30 P. M.—Baritone solo, Charles Derbyshire.
8:40 P. M.—Boy Week address, by George F. Pawling, Jr.
8:55 P. M.—The Troubadours, presenting song program.

Philadelphia Station (WIP)
(Gimbel Brothers)

1:30 P. M.—Selections by the Gimbel Orchestra.
2:30—Theresa Huttenlock, contralto songs, G. Lindsay Lindsay at the piano.
3 P. M.—Phonograph selections.
7:05 P. M.—Final baseball scores via radio.
7:15—Uncle Wip's bedtime stories for the kiddies.
7:20 P. M.—Uncle Wip will read the names of children writing to him.
7:30 P. M.—Varied musical selections.

PITTSBURGH STATION (KDKA)
(Westinghouse)

3:15 P. M. and at fifteen minute intervals thereafter—Baseball scores.
7 P. M.—Baseball scores.
News.
"Our Colleges for Women and World's Citizenship," by Miss Vivian B. Small, president of Lake Erie College, Painesville, O.
7:45 P. M.—Government market reports and a report of the New York Stock Exchange.
8 P. M.—Baseball scores.
"The Draftsman and His Work," by C. C. Leeds, School of Drafting, Carnegie Institute of Technology, Pittsburgh.
"Insect Pests and Disease of Vegetables," by W. D. Benedict, county agriculturist, Allegheny County Farm Bureau.
8:30 P. M.—"Snow White and the Seven Little Dwarfs," a bedtime story for the children.
Uncle Wiggily's bedtime story.
9 P. M.—Music by Arthur C. Stott, tenor; Miss Bernice E. Quartz, accompanist; Borelli's Band, A. Borelli, conductor (for G. G. Conn, Ltd.)

SCHENECTADY STATION (WGY)
(General Electric Company)

12:30 P. M.—Early stock market quotations.
6:00 P. M.—Produce and stock market quotations, baseball results, news bulletins.
6:30 P. M.—Seventh chapter of "Alice in Wonderland," Keith Hardy, reader.
6:40 P. M.—Health talk, "Safe Water for Camping Parties," by Dr. Herman M. Biggs, New York State Health Department.
7:45 P. M.—Concert program:

LEFT $200 TO CHARITY

John McGrath Estate Worth $40,500, Probate of Will Shows

John McGrath, of 1607 North Eighteenth street, whose will was probated today, leaves $100 of his $40,500 estate to St. Joseph's Catholic Church. Another $100 goes to the Church of the Gesu, while the residue is left to his son, Mack V. McGrath.

In the will of Margaret C. O'Brien, who leaves a $6000 estate, $100 is bequeathed to each of the following institutions: Little Sisters of the Poor, House of Good Shepherd, St. John's Day Nursery and the Home for Crippled Children. The residue is left to the Rev. Nevin F. Fisher, for distribution among Catholic charities.

Other wills probated are those of Horace B. Sturges, who died in the Samaritan Hospital, $5400; Emeline Boyle, who died in the Presbyterian Hospital, $77,000; Margaret A. Metcalf, 6426 Argyle street, $10,000, and Matilda Van Rensselaer Yard, 327 South Eighteenth street, $14,200. Inventories were filed in the personal estates of John Lambert, $176,073.44, and Agnes T. Norton, $37,891.80.

PERSHING NOT COMING HERE

Sends Word He Will Be Unable to Attend Twenty-eighth Reunion

General Pershing cannot attend the reunion of the Twenty-eighth Division in this city.

Word to that effect was received this morning at Division headquarters from Pershing who stated that he had been ordered to go on a four days' trip to Camp Lee, Charlotte, N. C. The nature of the trip was not disclosed.

The "unavoidable absence" of America's generalissimo is a severe setback to the plans of the Division leaders. He was scheduled to attend the dinner of the officers of the Twenty-eighth Division at the Union League tonight and to review the division parade on Broad street tomorrow.

Little Benny's Notebook

By Lee Pape

Yestidday after suppir pop took off his shoes and put on his slippers saying, Ah, now for a cigar and 14 carrot solid comfort.

And he put his feet up and started to smoak with a sattisfied ixpression, and ma sed, I should think you'd be tired of staying home every nite, I should think you'd feel the need of a little amusemint and reckreation.

Jest sitting heer on my 4th from the last vertebra and drawing good cleen smoak into my lungs is amusemint and reckreation enuff for me, sed pop.

Wich he kepp on doing, and ma sed, Wy dont you call up Mr. Lewis and see if he wunts to bowl or play billyerds or something?

Well, well, I thawt you dident like that fello, sed pop, and ma sed, Well, nobody can be as black as they're painted and theres no use being narro minded, do you wunt me to call him up for you?

No, I wunt to stay home and take it easy, my feet are tired, my backs tired, my heds tired, in other werds I'm tired, sed pop.

Thats impossible, sed ma.

The dooce it is, whose feet are they, whose hed is it? sed pop.

I meen its impossible for you to stay home tonite, sed ma, the Passwerd Comitty of the Dawters of Cleopattera is going to meet heer tonite and everything is sipposed to be very secret and everything, so for goodniss sakes dont get too comfortable.

To repeet the blind mans famous remark, I see, sed pop, well, far be it from me to wish to be the sole repersentative of the male sex in eny gathering of the Dawters of Cleopattera.

And he took his feet down and took his slippers off and put his shoes on and took me to the movies.

NOT A WOMAN ON THE JURY

Was Widow Zander's lawyer afraid to place one of her sex in the jury box? Did he figure that her charms would influence a male jury? The breach of promise case of Widow Zander against Uncle Bim is reported daily in the EVENING PUBLIC LEDGER Comic Section. For real fun follow "The Gumps" every day. "Make it a Habit."—Adv.

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MURDOCK PHONES 3000 Ohms $6.00
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All Standard Parts at List Prices
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Mail Orders Promptly Filled
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We bring the world to your home
OPEN EVENINGS

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No. 7 North Tenth Street
Philadelphia, Pa.
Everything in Radio of Standard Makes
Complete Radio Sets Installed

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The Right Goods AT The Right Prices
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"LOOK INTO IT"
Enjoy all local and Camden Concerts
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Guaranteed the best money can buy. Why pay more?
Mail orders promptly filled. Send cash with order.
Ask your local dealer or any department store to show this wonderful ALVO to you. If not in stock notify us.
22½ Volt "B" Battery, with Rectifier.... $7.00
6 Volt, 60 Amp..... $11.00
Radio Expert at your service free of charge.
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RADIO
We Carry the Most Complete Line of Radio Equipment in the City
Double Head Phones..$5.00 to $15.00
Variable Condensers, 43..... 3.40
Variable Condensers, 23..... 2.50
Fada Crystal Detectors..... 2.20
Fada Rheostats ..... .95
A-1 Crystal Detector (glass enclosed) 1.00
Paragon Rheostats 1.40
Acme Amplifying Transformers $4.50
Thorardson Amplifying Transformers 4.50
3-Y-Q Amplifying Transformers 6.00
Lightning Switches, 100 Amp. 2.75
Brach Lightning Arresters, 2.50 and 3.00
Marvel Sets....$12.50 "A" Batteries (Storage) $11.50
OPEN FRIDAY AND SATURDAY EVENINGS
"THE SPORT CENTRE"
BROADWAY CYCLE CO.
527 MARKET ST. PHILA.
BRANCH 1203 BROADWAY, CAMDEN, N.J.

Boys' Week

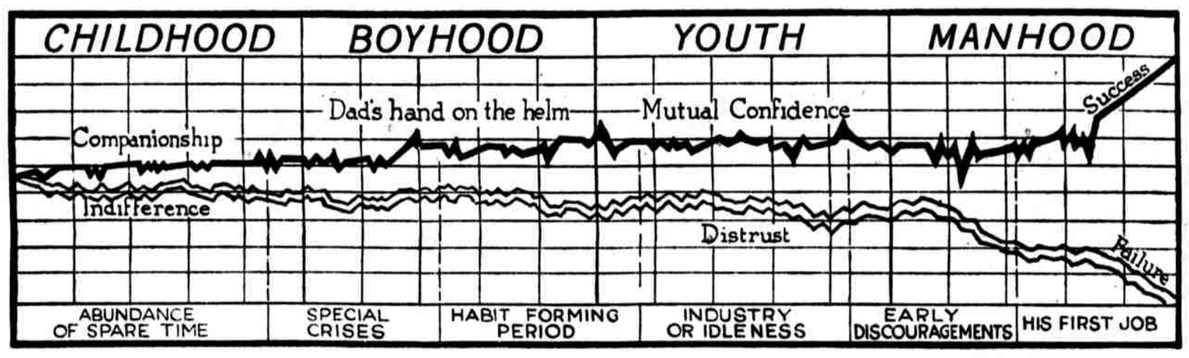
Give the Growing Boy Plenty of Milk

Milk—the perfect food—the body-builder—will make a man of him. It makes healthy children—sturdy boys—and rosy-cheeked girls.

GOLD MEDAL MILK
Rich—fresh—pure—wholesome

SUPPLEE-WILLS-JONES

Your boy—Asset or *Liability?*



Study the chart. You will find it as interesting as a diagram of business—and ten times as important, if you are a father. Here are the life lines of two American boys—the kind we all know. Each started with average health and prospects. Each had to go through the "awkward age"—the critical stages of boyhood and adolescence.

A boy can't help growing

Each met the same discouragements and hard knocks in his youth. One got over the rough places with manly courage; the other drifted aimlessly. One became an asset to his family and to his country. The other—a liability.

Why this tragic difference? Whose the responsibility? Those who have made a life study of boys and men—experts in practical boy psychology—are agreed that a father's companionship is the big vital factor which determines a boy's place in the world. The lack of that friendly relationship is the most disastrous lack in America today.

Some boys are not acquainted with Dad

Thousands of fathers realize they are losing their son's confidence at the very time he needs their guidance most... How often you hear the remark—**"I just don't seem to be able to get hold of my boy."**

When the **City of Philadelphia** set aside **"BOY WEEK"** it expressed the whole nation's conviction that fathers and sons should "get together" for the health of the nation.

Three thousand hours of spare time—what is he doing with them?

But there are fifty-one other weeks in which growing boys need to be chums with Dad. And there are 3,360 hours of spare time in a boy's year—Dad's opportunity, if he knew it!

How is a busy father—harassed and preoccupied in his grown-up world—going to make the best of a responsibility which he cannot turn over to any other human being?

A practical plan has been perfected. A group of our country's most successful Boy Workers have made the whole thing delightfully simple by a program of boy activity.

Father needs help as well

If you have a boy or boys between the ages of eight and sixteen send your name, address and the age of your boys.

Name .....

Address .....

.....

It may not be too late

I have.....sons.....years of age.

You will receive complete particulars without any obligation. Let us get together now.

FATHER AND SON LEAGUE EASTERN HEADQUARTERS
44 East 23rd Street, New York, N. Y.