

No More Hatchet for Sick Fowls

USE **MUSTANG**

—the SURE REMEDY for Pleurisy, Swollen Head, Cough, Canker, Worms, Cholera, Frozen Combs, etc.

Scy's Thos. F. Rigg, Iowa Falls, Ia.—"I have used Mexican Mustang Liniment in my yards for 24 years. My father, Dr. James Rigg, who founded the Rigg strain of Houdans, used it in his yards and always recommended it to the fraternity. It is a positive cure for Koup, Embolism and Swollen Head. I would not undertake to keep fowls without having a bottle of Mustang handy by."

Write for beautiful FREE SOUVENIR PENCIL, sent absolutely free with complete directions for using Mustang Liniment for family ailments, and for livestock and poultry, L. R. Riggs, 415 South 7th St., Brooklyn, N. Y.

25c
50c
\$1.00

Sold by Drug and General Stores
The Old Standby **MEXICAN MUSTANG LINIMENT** Since 1848

suspicious sore throat

Don't neglect it. Begin gargling at once with one teaspoonful of **Zonite** in 20 teaspoonfuls of water. Gargle every half hour until all discomfort has disappeared. **Zonite** is the most remarkable of all antiseptics. It doesn't taste or smell sweet, but it surely does kill germs. Positively non-poisonous.

Zonite KILLS GERMS

Who Was the Black Prince?

The sobriquet was bestowed upon Edward, prince of Wales, and son of Edward III. There is great difference of opinion as to the origin of this appellation. Edgewart says that he was styled black "by terror of his arms," while Strutt states that he was surnamed the "Black" for his warlike prowess. The commonly accepted notion is that he was called the "Black Prince" owing to the color of his armor; but Meyrick and Shaw both assert that his armor was anything but black.

Freshen a Heavy Skin

With the antiseptic, fascinating Cuticura Talcum Powder, an exquisitely scented, economical face, skin, baby and dusting powder and perfume. Renders other perfumes superfluous. One of the Cuticura Toilet Trio (Soap, Ointment, Talcum).—Advertisement.

A Light Talker

"Did the speaker electrify his audience?"

"No, he merely gassed it."—American Boy.

Don't Fuss With Mustard Plasters!

Musterole Works Without the Blister—Easier, Quicker

There's no sense in mixing a mess of mustard, flour and water when you can easily relieve pain, soreness or stiffness with a little clean, white Musterole. Musterole is made of pure oil of mustard and other helpful ingredients, combined in the form of the present white ointment. It takes the place of mustard plasters, and will not blister. Musterole usually gives prompt relief from sore throat, bronchitis, tonsillitis, croup, stiff neck, asthma, neuralgia, headache, congestion, pleurisy, rheumatism, lumbago, pains and aches of the back or joints, sprains, sore muscles, bruises, chilblains, frosted feet, colds of the chest (it may prevent pneumonia).

To Mothers: Musterole is now made in milder form for babies and small children. Ask for Children's Musterole. 35c and 65c, jars and tubes.

MUSTEROLE

WILL NOT BLISTER

Better than a mustard plaster

DON'T WAIT TILL YOU'RE DOWN SICK

THE minute you feel a little under the weather, get a bottle of Gude's Pepto-Mangan. Don't wait till you're down sick. Take Gude's as a preventive of illness—it will enrich your blood, and build up your energy. Your druggist has it, in both liquid and tablets.

Free Trial Tablets. To see for yourself the health building value of Gude's Pepto-Mangan, write today for generous Trial Package of Tablets. Send no money—just name and address to M. J. Breitenbach Co., 53 Warren St., N. Y.

Gude's Pepto-Mangan

Tonic and Blood Enricher.

A COLD TODAY—DON'T DELAY

Cures Colds in 24 Hours
La Grippe in 3 Days

RADIO

(Edited by J. Douglas Wardrop, Editor of Radio Merchandising.)

By **BYRT C. CALDWELL**

Many of the thousands who last year had radio sets and who were satisfied with reception by means of ear-phones, want to discard the phones for local reception, and employ a loud speaker instead. In many cases, the price of the loud speakers on the market makes this prohibitive, and in other cases the person has been disgusted with loud speaker reception by the terrible grinding roars that come from some radio store loud speakers.

Of all the horns used, the phonograph horn is undoubtedly the best. The phonograph horn was developed by means of long years of painstaking research and experiment by highly paid acoustical experts. The writer has planned the horn, the description of which follows, by taking the measurements of the sound-reproducing

pieces. As it is a difficult matter to cut wood into the shapes given, the pieces are cut from medium-thick, rough cardboard. This cardboard would not give satisfactory results ordinarily, but this is taken care of. When the pieces are cut out, fit them together in the shape shown, and fasten them the entire length of all the edges with sticky paper. This is then placed inside the cabinet, and glued in place. A piece of rubber tubing, with an inside diameter of one-half inch, and two feet long is fastened in the small end of the horn by pushing some paper around it, and melting sealing wax over the paper. This rubber tubing can be purchased at any chemical supply store for 30 cents a foot. It is coiled up as shown, and the end is supported about three inches from the top of the cabinet, and pointing up. Cement, plaster or some other such substance is now poured in to cover the horn. It should fill up all the little crevices. This is to make up for the cardboard horn, and renders it nonresonant, or practically so. The receiver should be fastened to the rubber tubing in the position shown and should preferably be of the type used for loud-speaker units. It should have a large diaphragm diameter. Directly over the receiver, a strong magnet from a magneto should be fastened to the hinged cover of the cabinet. When operating, revolve the receiver until the volume is greatest. This magnet is not absolutely necessary, but it adds greatly to the volume.

This instrument may be placed in one room, and the set in another. When tuning the set this way, if you first tune in with the headphones, and then attach the loud speaker, you will have to slightly reduce the condenser setting, as the tuning is changed when the set is at a distance from the receiver of one of the most famous phonographs. This loud speaker is a revelation to those who have heard only the tremendous bursts of sound from the loud speakers placed in stores to sell radio. This reproducer, while it does not take a field current, employs a large magneto magnet, which greatly increases the volume of sound.

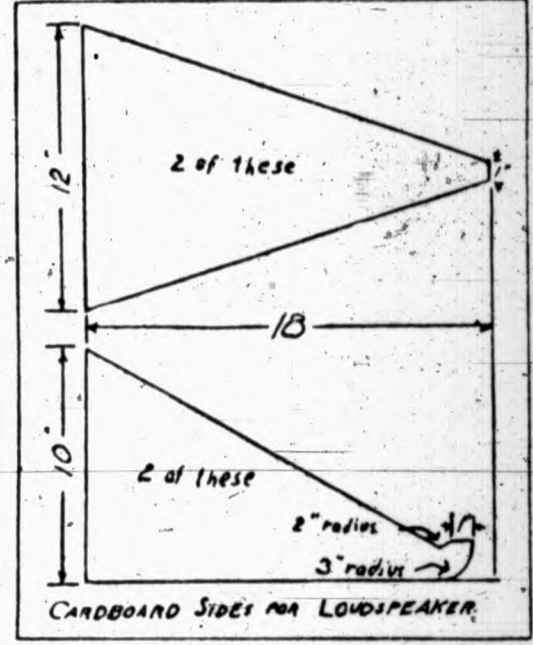


Fig. 1. Cardboard Sides to Be Cut and Used for the Construction of the Loud Speaker. Rough Cardboard is Preferable to Bristol Board or Highly Finished Cardboard.

It is said that a loud speaker does not increase the volume of sound from a given set. While this is correct, the loud speaker does not actually add to the volume, it prevents losses from occurring, and so the volume is greater than it would be without the horn. It also directs the sound waves, and so it seems to greatly add to the volume. When the sound waves leave the receiver, they have a very great amplitude, but they cover a very small area. When they have traveled for some distance, they cover a great area, but they have a very small amplitude. It is in this change that great losses occur if no horn, or a horn of incorrect design is used.

To give best results, the horn should spread the sound waves out gradually, so that these losses are eliminated. It should also be large enough so that the fundamental of the horn is lower than any of the sounds which are liable to be reproduced. It has been found that extremely large horns, with the dimensions at the mouth approximating 8 by 8 feet, give wonderful quality results. Another requisite of the loud speaker is that the horn should be made of some nonresonant material. Thin sheet metal is unsatisfactory. The inside surface of the horn should be roughened, so as to absorb some of the scratchy sounds.

The loud speaker described here-with covers all these points and gives a wonderful quality of music and speech. It is also a beautiful instrument, as contrasted with most of the

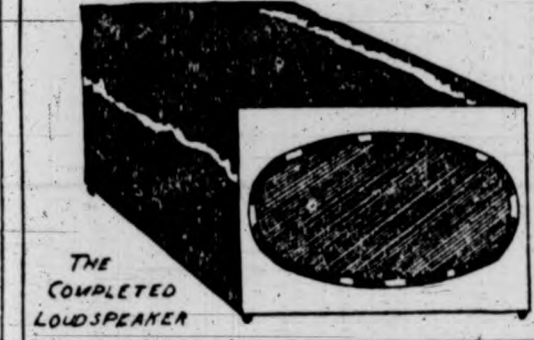


Fig. 3. Completed View of the Home-Made Loud Talker. If Placed in a Nicely Finished Cabinet and the Front Covered With Silk as Shown, a Good-Looking as Well as Extremely Serviceable Speaker Will Be the Result.

producer. Also, if you do operate the set at a distance, use two well-insulated wires to connect the set to the talker, as it is impossible to use a gas or water pipe, and if poorly insulated wires are used, a great deal of energy is lost.—Radio World.

Material Needed to Make Compact Rheostat

The materials needed to make this rheostat are a composition dial, some resistance wire, a small strip of brass, and some screws and mica disk. Wind the resistance wire on a 3-16 inch rod; when the coil is wound on connect one end to the brass backing inside of the dial and cut the other end off about 1/4 inch from the set-screw that runs from the top of the dial to the bushing. Cut out a round piece of thick mica large enough so that the wire will fit tightly on it, and then groove the mica. Cut out a hole in the center of the disk so it will fit snugly over the bushing, and drill a hole the size of this set-screw parallel with the disk. Put the set-screw in and this will hold the disk on the dial. Punch two holes in the disk where the two ends come and connect one end to the bushing. This serves as one contact and the other contact is made by the small brass strip that is fixed on the panel.

Some Tube Problems Amateurs Will Have

Have you been confronted with a problem like this? A receiving set consists of a detector and two stages of audio frequency amplification. A UV-200 radiotron is used for the detector and two UV-201 radiotrons for the amplifier. Now, one of the UV-201 radiotrons burns out and it is replaced by a UV-201A. Which stage of the amplifier is best suited to be equipped with the latter tube? The usual practice would be to insert the new tube in the socket formerly occupied by the old tube. However, better results are obtained by placing the UV-201A in the first stage of the amplifier and the UV-201 in the second of last stage.

Increase Audibility of Signals Forty Per Cent

A new antenna cable recently developed has shown that by its use the audibility of signals can be increased by nearly 40 per cent, says the Scientific American. The conductor is composed of ten strands of No. 18 bare copper wire braided closely on a special machine to give it a ribbon-like appearance, one-half inch wide by one-eighth inch thick. With an antenna 30 feet long of this type, strung in a basement at a level about one foot below the surface of the earth, better results were obtained than with an antenna out of doors at an elevation of 40 feet.

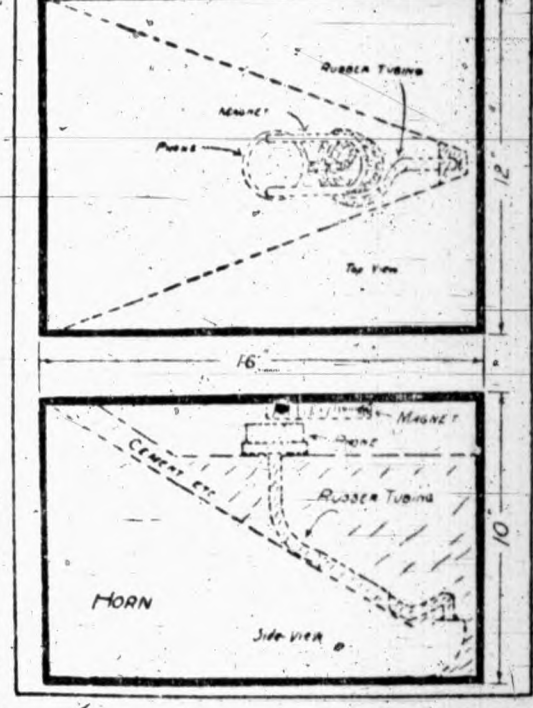


Fig. 2. Top and Side Views of the Speaker, Showing the Location of the Loud-Speaking Unit, and the Method of Connecting It by a Flexible Rubber Tube or Hose, to Improve the Quality. The Magnet Over the Phone Gives Better Volume.

horns which we see on the market today. It is very easy to make and costs very little. These two last points perhaps are the most important to the average fan.

The container is a cabinet made with a mahogany, walnut or oak finish. It is size 16 by 12 by 10 inches and is made with a hinged cover. The front piece may have a circular, oval or square opening cut in it. This opening is covered with silk cloth of a color to harmonize with the finish of the cabinet. The horn is made in four

STATE LIONS HOLD MEETING

Orangeburg Attorney Elected Governor; Other Officials Are Named at Gathering.

Columbia.—Officers for the 32nd division of the Lions club, embracing all of South Carolina, were elected at a called meeting of representatives of the district at the Masonic temple. The election was equivalent to the completion of the Lions' organization in the state, as the club has not had a full coterie of officers hitherto due to the fact that a district can be formed only with a minimum of ten clubs and the tenth club has only recently been admitted into the organization.

John S. Bowman, Orangeburg attorney, was elected district governor to succeed Judge M. L. Bonham. Judge Bonham found it necessary to give up his position as he found other duties pressing and called the meeting in order that a successor might be elected.

A. M. Traywick of Spartanburg was elected vice governor and George E. Barber, secretary of the Cary-Barber Printing company here, was made secretary. Both of these offices for the district were created at the meeting.

The gathering was an enthusiastic one, delegates coming from all parts of the state to join in the singing of the Lion songs and in the making of plans for the national convention in June. The setting of the time for the next district meeting was left to the governor of the district. The Lions plan to gather once a year in February prior to time of the national convention. Charles Lindsay of Spartanburg invited the club to hold its next annual meeting at Spartanburg.

The visiting delegates were entertained by members of the local organization. A short meeting was held by Columbia Lions prior to the district meeting. The Rev. R. A. Lapsley, Jr., pastor of the First Presbyterian church, gave the invocation. After the local club meeting the Lions of South Carolina joined in the singing of several rollicking songs. Judge Bonham made the opening address, to which Mr. Traywick responded. The Lions were urged to get ready for the national convention at Omaha, Neb., in June.

After the business meeting a delightful supper was served to the visiting guests by members of the club. Pleasing violin solos were rendered by J. C. Duttonhoefer, accompanied by Perry Teeple on the piano.

Laurens Agrees Upon Police.

Laurens.—The Laurens county delegation to the general assembly has agreed upon the personnel of the rural police force for the next two years and the names of the men selected will be recommended to the governor for appointment. Two officers of the force hold over for another year, while five are to be named this month. Four out of the five to be appointed, as recommended by the delegation are present members of the county rural system, as follows: Columbus L. Owens, Claude L. Owings, A. I. Boyd and S. M. Thompson. M. B. Chandler, former chief of police of Greenwood and captain of the guard at the state penitentiary for a time under the present administration, has been indorsed for appointment on the force to succeed Thomas B. Abrams of Clinton. Mr. Chandler is now living at the old Chandler home place near Mountville. The cost of maintaining the rural police department is about \$10,000.

Chester Obtains Toy Factory.

Chester.—The campaign for a toy manufacturing industry which will represent an expenditure from the start of \$120,000, of which \$40,000 will be local stock and \$80,000 out of town stock, has gone over the top triumphantly and the Northern promoters have been wired of the success of the campaign, according to Howard B. Branch, secretary of the Chester chamber of commerce. The industry will use soft woods mainly and make doll furniture and wheel goods, the machinery, however, will be adaptable to the manufacture of ordinary furniture, so that if the occasion arises the machinery can be put to turning out this class of goods.

There is an abundance of the kind of wood the plant will need within a few miles of Chester. Plenty of electric current, more satisfactory conditions, among labor and the abundance of raw material nearby are the factors that gave Chester this new industry, which it is believed will ultimately show evidences of spen did expansion. Representation of the board of directors will be divided with local capital having more than its proportionate representation. The plant will employ about 50 or more employees from the start with a maximum of 250 when full capacity is attained.

Good Spirits Prevail Among Farmers.

York.—Despite the recent decline in the price of cotton, York farmers are in excellent spirits as they prepare to plant their crops this spring and are hoping for another prosperous year. Twelve months ago many were gloomy because of the boll weevil menace, which hung over the county last year like a dark cloud. Though the weevil did considerable damage, the loss from his activities was far less than had been expected, as a consequence of which York farmers have recovered from their fright

Demand

BAYER

ASPIRIN

SAY "BAYER" when you buy—Genuine

Proved safe by millions and prescribed by physicians for

Colds Headache Neuralgia Lumbago.
Pain Toothache Neuritis Rheumatism

Genuine Accept only "Bayer" package which contains proven directions. Handy "Bayer" boxes of 12 tablets. Also bottles of 24 and 100—Druggists.

Saving Before and After It's so hard for some men to save money when single that they don't think it worth while trying after they marry.

WOMEN! DON'T BE IMPOSED UPON

Warning! Not All Package Dyes Are "Diamond Dyes."

Diamond Dyes

Always ask for "Diamond Dyes" and if you don't see the name "Diamond Dyes" on the package—refuse it—hand it back!

Each 15-cent package of "Diamond Dyes" contains directions so simple any woman can dye or tint skirts, dresses, waists, sweaters, stockings, kimonos, coats, draperies, coverings—everything new, even if she has never dyed before. Choose any color at drug store. Refuse substitutes!

"DANDELION BUTTER COLOR"

A harmless vegetable butter color used by millions for 50 years. Drug stores and general stores sell bottles of "Dandelion" for 35 cents.—Adv.

"CASCARETS" FOR LIVER AND BOWELS—10c A BOX

Cures Biliousness, Constipation, Sick Headache, Indigestion. Drug stores. Adv.

Penny-in-Slot Elevator

A penny-in-the-slot automatic elevator has been devised. The passenger inserts a coin, enters the car, and presses the button of the floor to which he or she wishes to ascend.

Children Cry for "Castoria"

Especially Prepared for Infants and Children of All Ages

Mother! Fletcher's Castoria has been in use for over 20 years as a pleasant, harmless, substitute for Castor Oil, Paregoric, Teething Drops and Soothing Syrups. Contains no narcotics. Proven directions are on each package. Physicians everywhere recommend it. The kind you have always bought bears signature of

Wm. D. Fletcher

Demand

HENRY'S WAMPOLE'S

Palatable Preparation

EXTRACT OF COD LIVER OIL

Original and Genuine

COMPOUND

Unless you remember initials "Henry S." and "Made in Baltimore" you may not get the original and genuine Henry S. Wampole's product containing Cod-Liver Oil, Malt, Wild Cherry extracts, Hypophosphites, etc., and proven best by millions of people for nearly two decades. See formula and full directions for use as tonic, after illness, coughs, catarrh, bronchitis, etc., etc. Avoid inferior substitutes. Get a bottle tonight.

Made in Baltimore — Sold Everywhere

Two pleasant ways to relieve a cough

Take your choice and suit your taste. S-B or Menthol flavor. A sure relief for coughs, colds and hoarseness. Put one in your mouth at bedtime. Always keep a box on hand.

SMITH BROTHERS

S.B. COUGH DROPS MENTHOL (orange colored box)

Famous since 1847