Build a

Sportset

for Football, Camp, etc.

enjoy. Already, it has made a hit
NEWS staff. And we predict that
by those who want a small portable
use in out-of-the-way places. It
with plenty of volume, too!

Haynes

just above audibility (beyond hearing).
The signal-frequency oscillation is
varied by means of the tuning con-
denser C1, while the quenching frequency
is adjusted by the proper balance of the
tapped choke L2 and its fixed tuning
condenser, C4. If a constant audio
spiral is heard it indicates that the
L2, C4 combination is too large and
should be reduced, either by using a
lower capacity condenser or by remov-
ing turns from the choke L2. This
choke, L2, which is not particularly
critical, is best purchased in the form
of a close-wound universal choke of
about 20 M.H. inductance, tapped about
1/4-way from the inside (about 1/8
of the inductance). For best sensitiv-
ity the condenser, C4, should be as large
as possible without causing an audio
squelch. The value of all the fixed con-
densers in this circuit vary to some
extent with different layouts, but the
given values should be about right. It
may be well to try varying the position
of the loop tap for the best regenera-
tion control.

Low-Cost Design

Current for the filament is supplied by
two of the large, single-cell flashlight
batteries such as the Burgess No. 2. If
good batteries are used their life will
be surprisingly long as the filament cur-
cent of the 30 tube used is only .06
amps.

The 14-ohm resistor shown in the fila-
ment circuit can be easily made by
winding some fine insulated copper wire
on a small dowel or resistor form until
the proper resistance has been reached.
If you have no ohmmeter your radio
store or any serviceman can wind it for
you in a few minutes. Or a section of
an old rheostat can be employed. The
"B" or plate-circuit battery consists of
four "pencil type," 2-cell, flash-light
batteries (Burgess No. 22). As these
are 3-volts each, a total of 12 volts is
obtained when they are connected in
series. The circuit will operate satis-
factorily with only 3 batteries or 9
volts but there is room for the extra
battery and 12 volts gives a little added
improvement in volume and sensitivity.

L3 is an ordinary
pre-wound 2.1 m.H.
choke and is held in
place by passing one
of its leads through
a small hole in the
partition beside it; its
other lead connecting
directly to the plate
terminal of the tube
socket. The latter should be one of the
small molded sockets which were so
common a few years ago. If you haven't
one in the "junk box" most any radio
store will probably be able to produce
one, and several manufacturers still
make them (L.C.A. No. 2430).
The placement of (Turn to page 219)

AS COMPACT AS IT IS USEFUL.

This view, with the cover removed, gives all the details
for constructing the Sportset. It can be wired in half
an hour.

Television Range Extended

By John Strong

TELEVISION field coverage tests con-
ducted jointly by the Radio Corpo-
ration of America and its subsidiary
—the National Broadcasting Company—
have proven exceptionally satisfactory to
participating engineers. The programs on
the current 441-line definition are clearly
and consistently received as far as 69 miles
away, as verified by receiving stations as
(Turn to page 230)
Television Range is Expanded

(Continued from page 203)

far away as Rochester, L. I. The proximity of the Mount Marcy town to the Empire State Building in New York, where the transmitting antenna is located, is indicated in the accompanying map, which shows the range of the station.

Daily transmissions are being made to some of the leading universities in the country, including those of Harvard, Yale, and Columbia. These schools are fully equipped with the latest experimental apparatus, and the transmissions are being made to test the equipment and to study the range of the station.

The photo insert depicts the great height of the Empire State Tower at the left—the highest antenna point in New York City—which offers great advantages to the video station.

The "Tiny-Tot"

(Continued from page 215)

supply unit certainly helps in making the set compact. As a unit it consists of a 12SA7 pentode, a 12AT7 triode, a 12AU7 triode, and a 12AU6 pentode, all of which are mounted in a single chassis. The chassis is designed to fit into a standard 4-inch clearance, and is compact enough to fit into a standard 4-inch space. In fact, the unit is small enough to fit into a standard 4-inch space, and is compact enough to fit into a standard 4-inch space.

The volume control is a 20,000-ohm, double-spaced control, so that full brightness is achieved when the controls are set for maximum brightness. The two outside plates must be removed to set the controls for maximum brightness. The plates are held in place by a spring-loaded plate, which is removed by a small screwdriver.

The tuning condenser is a 20,000-ohm, double-spaced control, so that full brightness is achieved when the controls are set for maximum brightness. The two outside plates must be removed to set the controls for maximum brightness. The plates are held in place by a spring-loaded plate, which is removed by a small screwdriver.

The tuning condenser is a 20,000-ohm, double-spaced control, so that full brightness is achieved when the controls are set for maximum brightness. The two outside plates must be removed to set the controls for maximum brightness. The plates are held in place by a spring-loaded plate, which is removed by a small screwdriver.

The tuning condenser is a 20,000-ohm, double-spaced control, so that full brightness is achieved when the controls are set for maximum brightness. The two outside plates must be removed to set the controls for maximum brightness. The plates are held in place by a spring-loaded plate, which is removed by a small screwdriver.

The tuning condenser is a 20,000-ohm, double-spaced control, so that full brightness is achieved when the controls are set for maximum brightness. The two outside plates must be removed to set the controls for maximum brightness. The plates are held in place by a spring-loaded plate, which is removed by a small screwdriver.

The tuning condenser is a 20,000-ohm, double-spaced control, so that full brightness is achieved when the controls are set for maximum brightness. The two outside plates must be removed to set the controls for maximum brightness. The plates are held in place by a spring-loaded plate, which is removed by a small screwdriver.

The tuning condenser is a 20,000-ohm, double-spaced control, so that full brightness is achieved when the controls are set for maximum brightness. The two outside plates must be removed to set the controls for maximum brightness. The plates are held in place by a spring-loaded plate, which is removed by a small screwdriver.

The tuning condenser is a 20,000-ohm, double-spaced control, so that full brightness is achieved when the controls are set for maximum brightness. The two outside plates must be removed to set the controls for maximum brightness. The plates are held in place by a spring-loaded plate, which is removed by a small screwdriver.

The tuning condenser is a 20,000-ohm, double-spaced control, so that full brightness is achieved when the controls are set for maximum brightness. The two outside plates must be removed to set the controls for maximum brightness. The plates are held in place by a spring-loaded plate, which is removed by a small screwdriver.

The tuning condenser is a 20,000-ohm, double-spaced control, so that full brightness is achieved when the controls are set for maximum brightness. The two outside plates must be removed to set the controls for maximum brightness. The plates are held in place by a spring-loaded plate, which is removed by a small screwdriver.

The tuning condenser is a 20,000-ohm, double-spaced control, so that full brightness is achieved when the controls are set for maximum brightness. The two outside plates must be removed to set the controls for maximum brightness. The plates are held in place by a spring-loaded plate, which is removed by a small screwdriver.

The tuning condenser is a 20,000-ohm, double-spaced control, so that full brightness is achieved when the controls are set for maximum brightness. The two outside plates must be removed to set the controls for maximum brightness. The plates are held in place by a spring-loaded plate, which is removed by a small screwdriver.

The tuning condenser is a 20,000-ohm, double-spaced control, so that full brightness is achieved when the controls are set for maximum brightness. The two outside plates must be removed to set the controls for maximum brightness. The plates are held in place by a spring-loaded plate, which is removed by a small screwdriver.

The tuning condenser is a 20,000-ohm, double-spaced control, so that full brightness is achieved when the controls are set for maximum brightness. The two outside plates must be removed to set the controls for maximum brightness. The plates are held in place by a spring-loaded plate, which is removed by a small screwdriver.