THE ANTIQUE **RESISTOR** *COLOR* **CODE**

IT IS NOT THE GENERAL PRACTICE AMONG THE MANUFACTURERS OF RESISTOR8 TO MARK THE OHMIC VALUE UPON THE UNIT. INSTEAD OF THIS, THE OUTER SURFACE OF THE RESISTOR UNIT IS PAINTED IN A COMBINATION OF COLORS, AND BY PROPERLY INTERPRETING THIS COLOR-COMBINATION, ONE CAN READILY DETERMINE THE RESISTANCE VALUE OF THE UNIT.

1. – FIG. 1 - SHOWS YOU THE CUSTOMARY MANNER IN WHICH FIX£D RESISTORS ARE COLORED. As YOU WILL OBSERVE, THE BODY OF THE RESISTOR IB PAINTED ONE COLOR, THE END OF THE RESISTOR ANOTHER COLOR AND A THIRD COLOR IS ADDED IN THE FORM OF A SPOT OR BAND AT THE CENTER OF THE BODY.

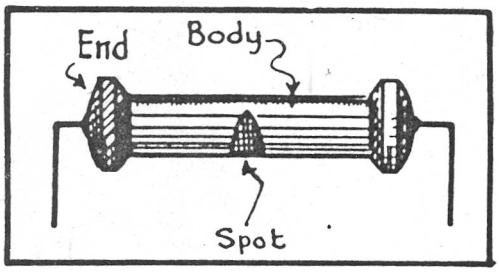

Fig. 1
A Color-Coded Resistor.

2. - TH£ BODY COLOR OF THE RESISTOR INDICATES THE FIRST SIGNIFICANT FIQURE, THE END COLOR DESIGNATES THE SECOND SIGNIFICANT FIGURE AND THE SPOT OR BAND COLOR DESIGNATES THE THIRD SIGNIFICANT FIGURE OF THE UNIT'S OHMIC VALUE.

3. - THE FOLLOWING TABLE EXPLAINS THE NUMERICAL VALUE FOR THE RESPECTIVE COLORS.

BODY COLOR	END COLOR·	SPOT OR BAND CQLOR .
Black---------0	Black---------0	Black---------0
Brown --------1	Brown --------1	Brown -------0.
Red ----------2	Red ----------2	Red --------00.
Orange -------3	Orange -------3	Orange ----000.
Yellow -------4	Yellow -------4	Yellow ---0000.
Green --------5	Green --------5	Green ---00000.
Blue ---------6	Blue ---------6	Blue ---000000.
Violet -------7	Violet -------7	
Gray ---------8	Gray ---------8	
White --------9	White --------9	

EXAMPLE: A FIXED RESISTOR HAS A RED BODY COLOR,A BLACK END COLOR AND A GREEN SPOT ON ITS BODY. WHAT IS THE RESISTANCE IN OHMS OF THIS UNIT?

ANSWER: THE BODY COLOR OF RED DESIGNATES THE FIRST SIGNIFICANT FIGURE OF 2; THE END COLOR OF BLACK DESIGNATES THE SECOND SIGNIFICANT FIGURE OF O, OR ONE ZERO.. BRINGING THE VALUE SO FAR TO 20; THE GREEN SPOT ON BODY DESIGNATES A THIRD SIGNIFICANT FIGURE OF 00000; THE RESISTANCE OF THIS PARTICULAR UNIT IS THERE-FORE 2,000,000 OHMS, OR 2 MEGOHMS. IF THE END WERE BROWN, 1., IT WOULD ADD A 1 MAKING THE RESISTOR 21,000,000 OHMS OR 21 MEGOHMS. IF THE SPOT WAS RED, IT WOULD ADD TWO AFTER THE FIRST NUMBER. THERFORE THE RESISTOR WOULD BE 22 MEGOHMS AND SO ON. THERE-FORE THE END DOT OR COLOR INDICATES THE 2^{ND} NUMBER TO ADD AFTER THE FIRST , AND THE BODY, HOW MANY ZERO'S TO ADD TO THE FIRST TWO NUMBERS.

NEWER CARBON RESISTORS USE BANDS OF COLOR, BUT THE RESULTS ARE THE SAME. READING THE FIRST BAND NEAREST THE END GIVES YOU THE FIRST SIGNIFICANT NUMBER, THE SECOND BAND GIVES YOU THE NEXT SIGNIFICANT NUMBER, AND THE THIRD BAND TELLS YOU HOW MANY ZEROS TO ADD TO THE FIRST TWO NUMBERS. If you have gold and silver 4^{th} bands, that is the tolerance of the resistor. No fourth band means the resistor is within 20% of the value shown, the silver band is 10% of the value and gold is 5% of the value shown on the resistor color code.