

# TELEVISION DISKS YOU CAN MAKE



THESE indexing gauges for laying out television disks are subject to variation according to the requirements of the builder. No matter what size of disk or number of holes is used, a slight alteration of the indexing gauge will meet the requirements. For practical purposes, this is quite necessary, as no fixed standards have been set at this time and different scanning methods are in use in various parts of the country. Television disks may be made of cardboard or, preferably, from sheet aluminum. The metal should be as thin as possible consistent with strength, because if thick metal is used the walls of the holes often act as reflectors. However, this may be remedied by counter-sinking the holes. Aluminum about .125 in. thick is very good for experimental purposes.

Several stations broadcasting television programs in the middle west are employing a three-spiral 45-hole scanning method, and the gauge for laying out this type of disk will be discussed first. The enlarged details of the indexing plate and clamps for holding it in position on the gauge are shown in Fig. 1. The length of the gauge,

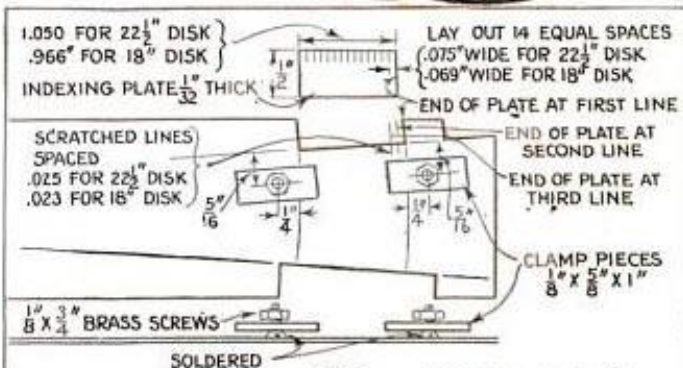


FIG. 1

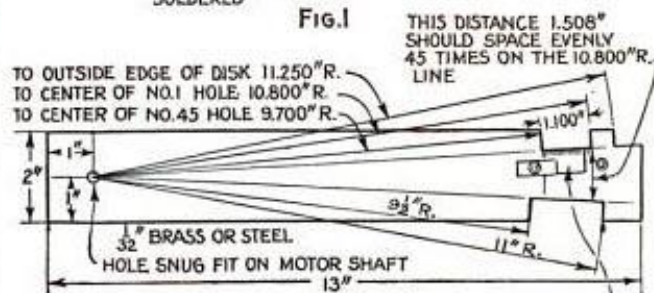


FIG. 2

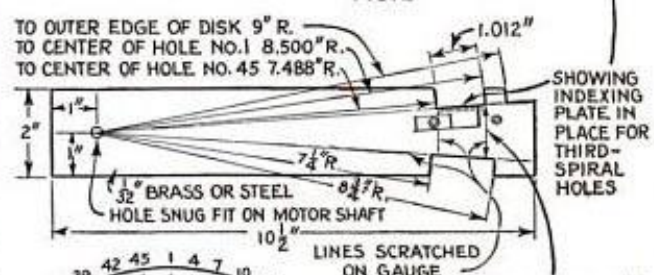


FIG. 3

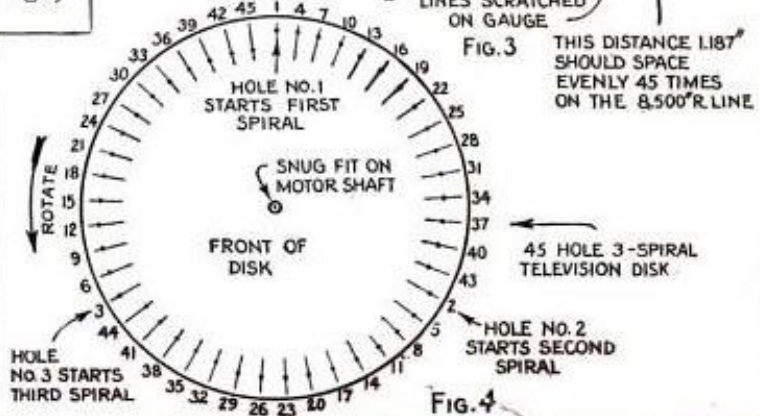
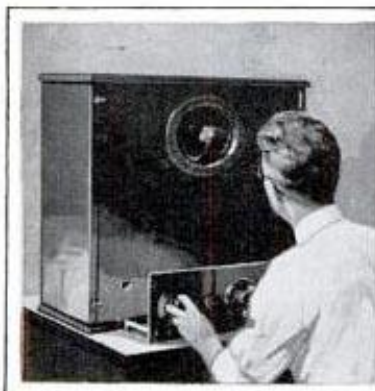
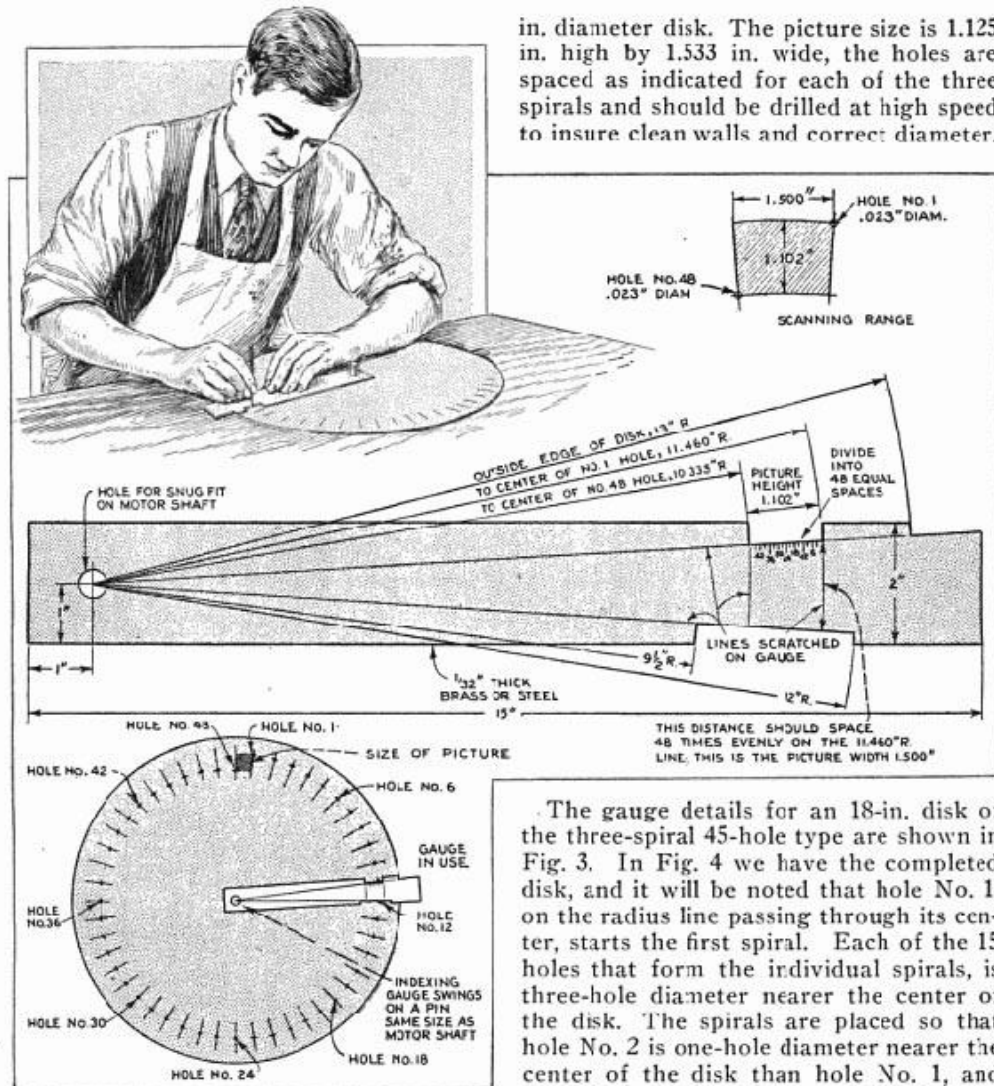


FIG. 4



indexing plate and the divisional spacing for both 18 and 22½-in. disks are given. The holes are spotted on these divisions, and the diameter of the hole is the same as the spacing.

The 22½-in. disk scans a picture about the size employed in moving-picture film, and a lens may be used to enlarge this image several times without distortion. It should be understood that, when holes are mentioned, it means the center point of each hole and these points must be clearly defined with a marking tool when the disk is laid out. The complete gauge dimensions are given in Fig. 2 for the 22½-

The gauge details for an 18-in. disk of the three-spiral 45-hole type are shown in Fig. 3. In Fig. 4 we have the completed disk, and it will be noted that hole No. 1, on the radius line passing through its center, starts the first spiral. Each of the 15 holes that form the individual spirals, is three-hole diameter nearer the center of the disk. The spirals are placed so that hole No. 2 is one-hole diameter nearer the center of the disk than hole No. 1, and the third spiral begins one-hole diameter nearer the center of the disk than hole No. 2.

The single-spiral 48-hole gauge and disk are shown on this page and this single-spiral disk scans a picture about the same size as the 22½-in. three-spiral 45-line disk previously described. In this case it will be noted that the entire number of equal divisions are not shown on the indexing space, as the lines would be too close together for illustrating purposes. The divisional lines are scribed directly on the gauge instead of a separate plate, and no clamps are required, as no shifting is necessary for the single spiral.