

Placing the magnetic heads on the surface of a rotating drum

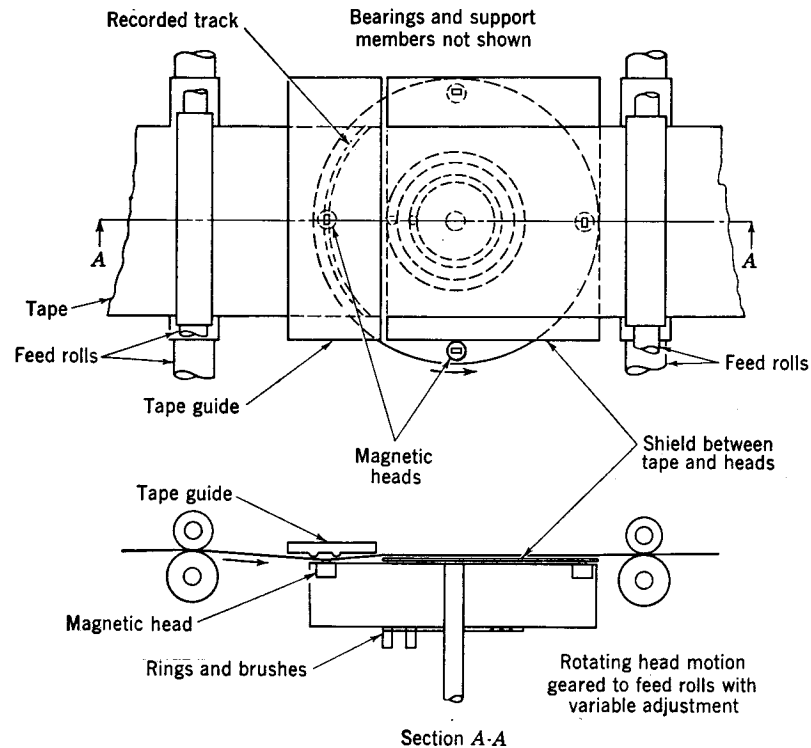


FIG. 4-19. Schematic of method for scanning across the tape (arcuate path).

adds a requirement for commutating rings or bars to connect the heads to the circuits. Where several heads are placed around the periphery of the drum, they are sometimes connected in parallel and a single pair of wires carried to rings. The commutation is accomplished by one head leaving contact with the tape as another comes into contact. There is some loss of level by the parallel connection and sometimes difficulty in obtaining heads matched in output level (close enough for repetitive oscilloscope scanning, for example).

At least two versions of audio-recorder equipment have been built for long, continuous recording in which the heads scan across a wide

tape while the tape is fed slowly across the scanning area. See Figs. 4-19 and 4-20. These allow at least a 24-hour supply of tape to be stored on a comparatively small-diameter reel. The heads, mounted in high-inertia drums, can be held in motion at low flutter rates. By providing fast reeling facilities, material recorded hours earlier can be found in a few seconds. Tapes are provided with elapsed-time marks printed on the back, so the desired recorded portion can easily be found.

The arrangement of Fig. 4-19 makes an arcuate track on the medium, which makes special splicing cuts necessary if no recorded material is to be lost.