LABYRINTH SEAL

Figure 1 shows the type of labyrinth seal, used to reduce to a minimum, steam leakage along the shaft. In this construction the seal strips are carried in separate rings or retainers.

These seals consist of very thin, flat strips of stainless steel, rolled edgewise, and held in grooves machined in the retaining ring, by means of soft steel caulking strips rolled into place. Since the strips are very thin, usually .010 inch, slight rubs between them and the shaft are negligible. Hence they can be set with close running clearance without any sacrifice of reliability. The number of seals per ring varies with design conditions, and two or more rings may be used if conditions warrant.

The retaining rings are made in halves and are carried in grooves machined in the stationary parts. Each half is backed by a garter spring to hold it in the correct position with relation to the rotor. Rotation is prevented by suitably placed stop pins. Accurate finish of the low pressure side of the groove and ring provides a steam tight joint at this point.

The following part list has been compiled to facilitate ordering spare or renewal parts by item number and name, together with the serial number of the turbine.

Item No.	Name
1	Stop Pin
2	Springs
3	Spring Pin
4	Retaining Ring Complete
5	Seal Strips and Caulking Pieces

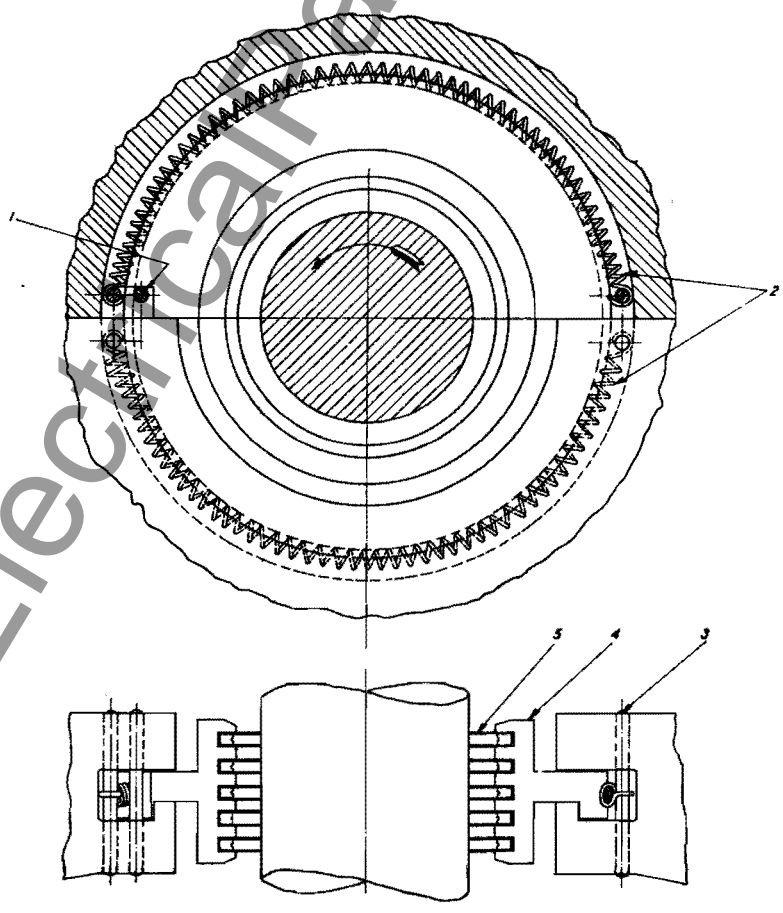

Fig. 1