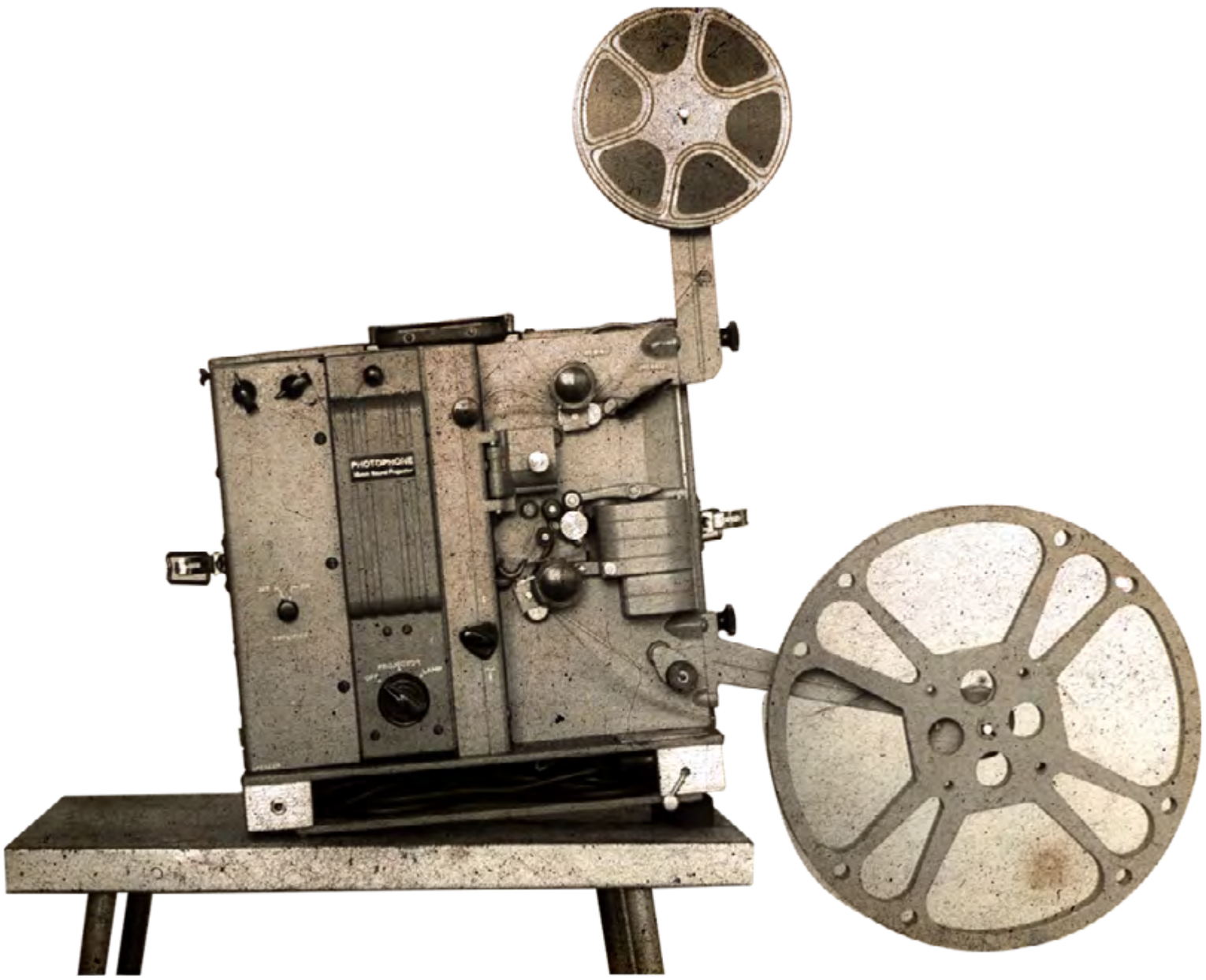
16mm Projector

design : a g rao

The 16mm projector an old RCA(Radio Corporation of America) design was being manufactured by Photophone Equipments limited, in India under a license agreement. Being pioneers in the field RCA had good reputation. They had already making a new design, which was not accessible to Photophone.

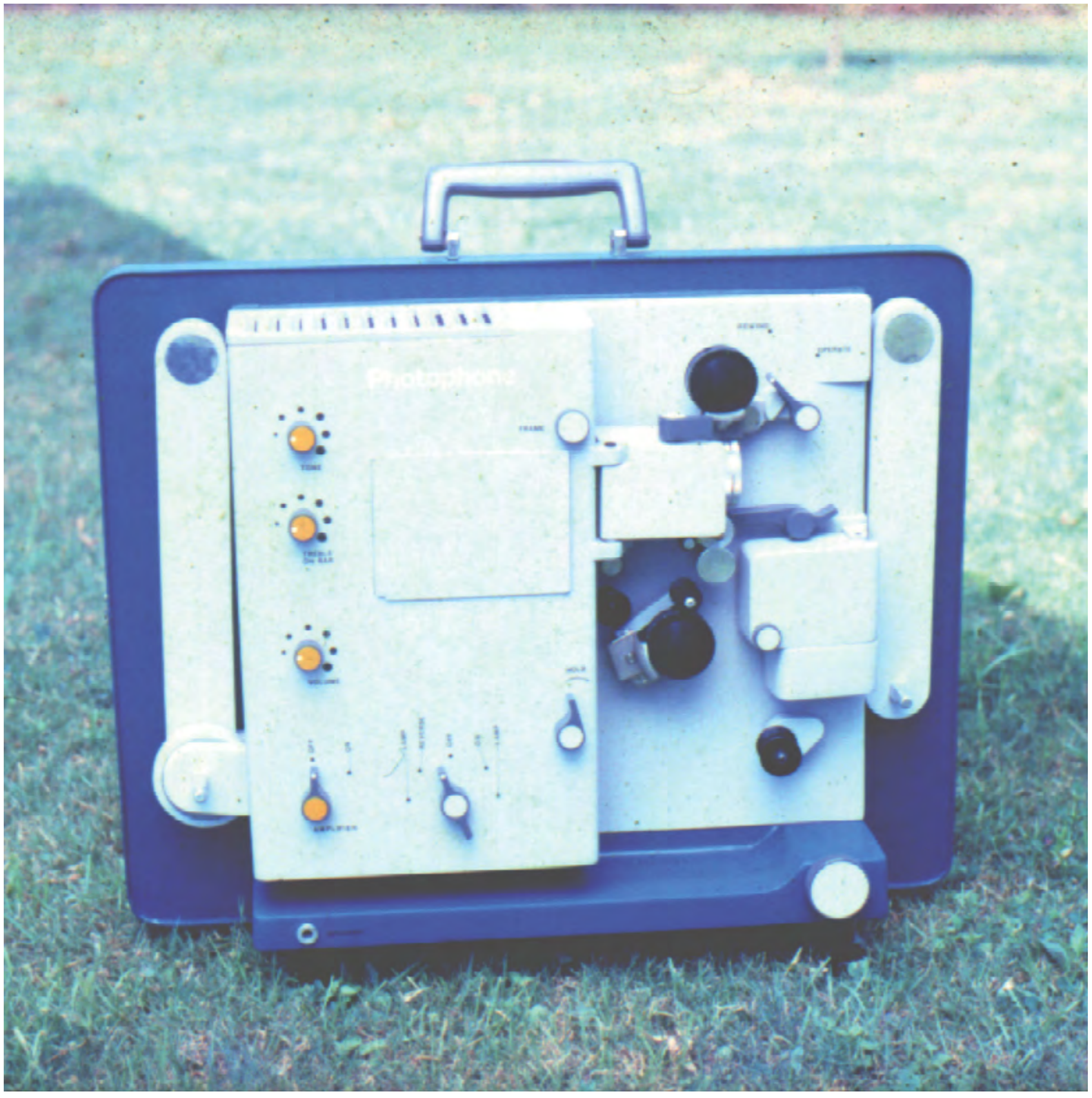
The old design had several shortcomings like

- Visually dissipated engineering look
- Requirement for a special stand due to the projecting arm and spool in the front side
- No provision for spool storage with the projector. (it had to be stored in the sound box)
- Poor get up of sound box due to lack of consistency in colour.



Visual analysis of the existing projector which was presented to the company before taking up the design work, high-lighted following points:

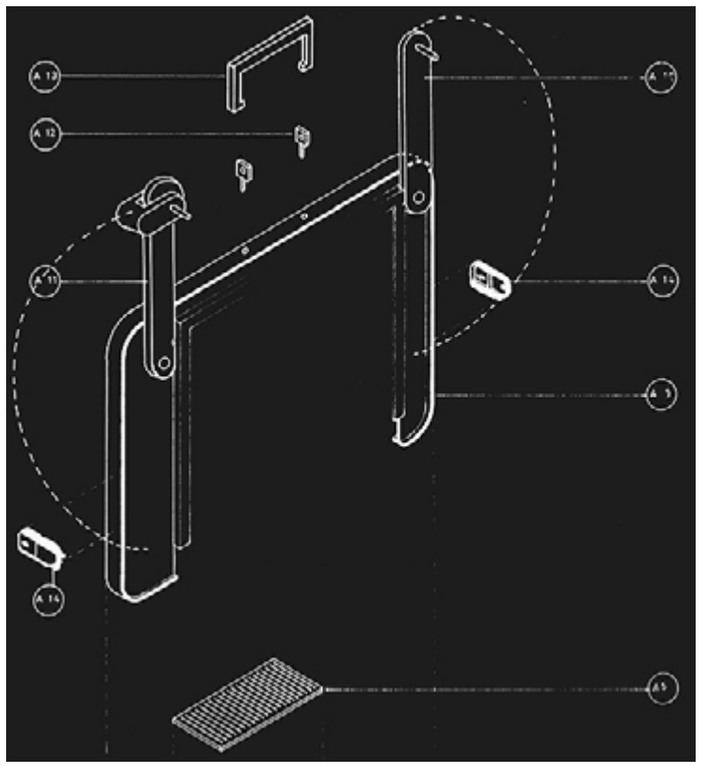
- Lack of visual flow and consistency.
- Lamp cover had a dominating visual presence compared to the operating knobs.
- Sound control knobs had no presence

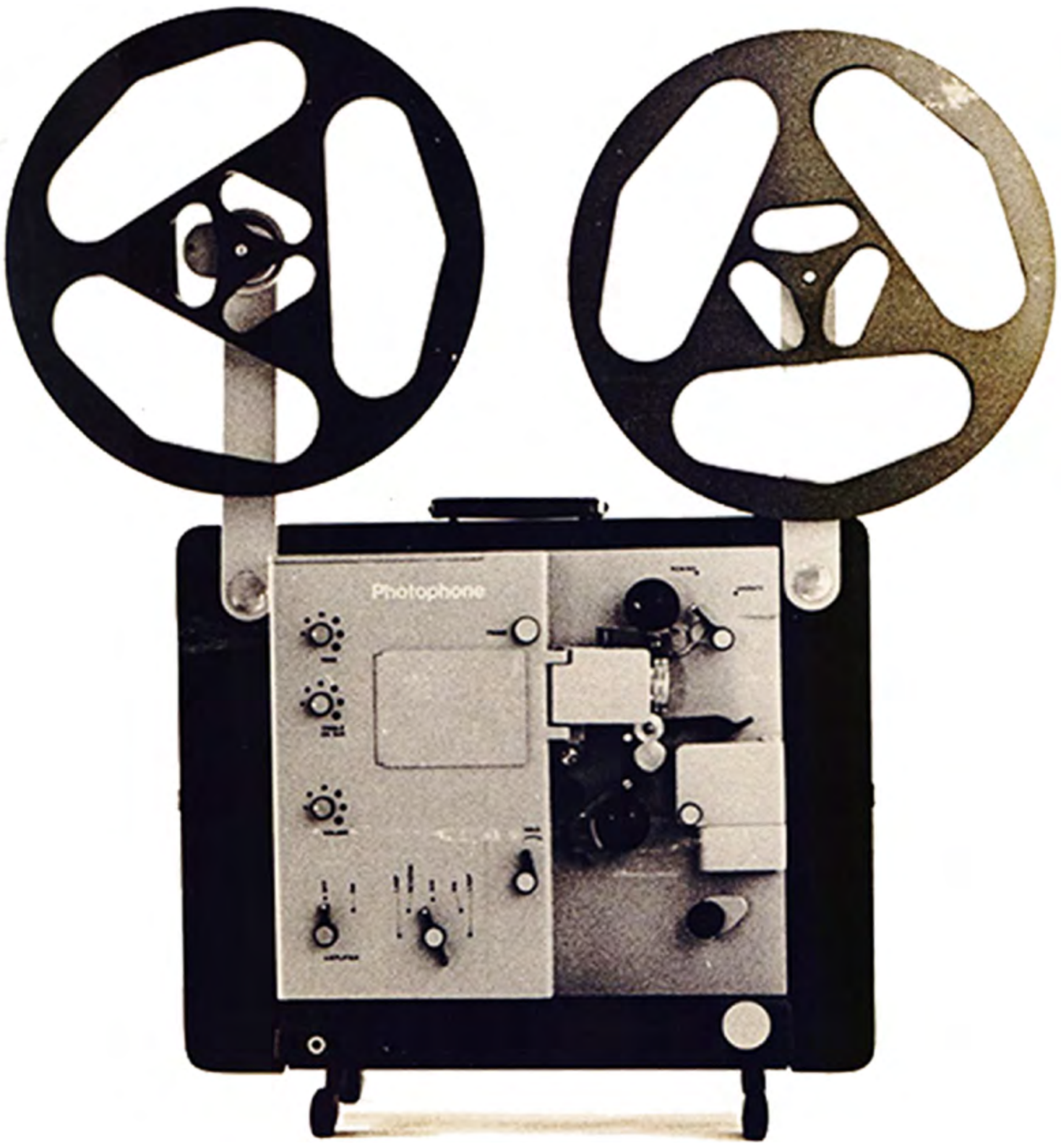


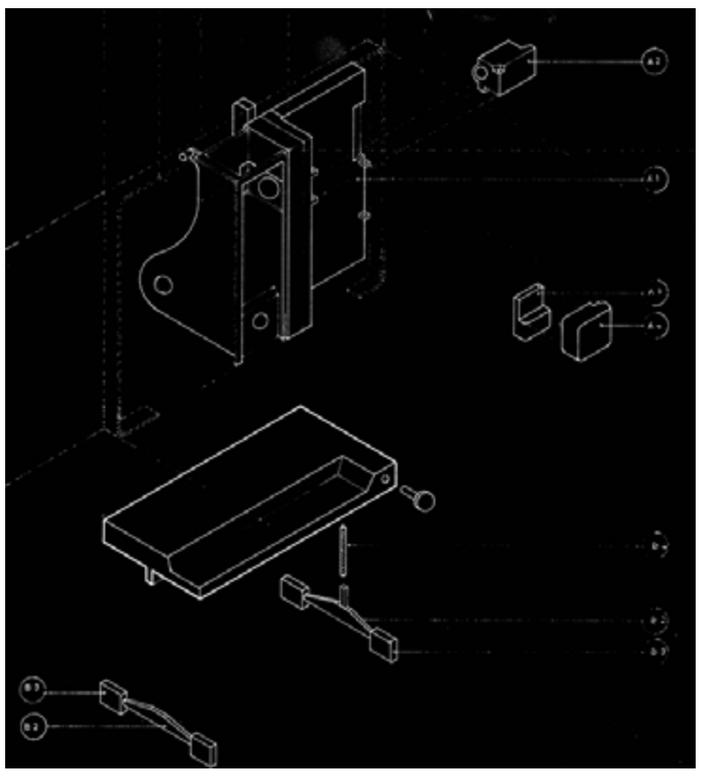
The new design proposed brought visual coherence to the projector. The additional castings brought in ‘visual binding’ to operating knobs, in addition to giving a functional advantage to take both spools to the top. The colour scheme ensured this visual organisation. Use of small halogen lamp reduced visual domination of lamp cover. Control knobs acquired a visual space. The controls for projection and Sound got segregated with colour coding.

Vacuum formed covers in ABS plastic gave a new identity of a precision instrument to the projector and sound box. Additional spool could be stored at the backside of the projector. There was no need to open the sound (speaker) box at all.

The addition of a casting to lift spools gave a functional advantage. Additional castings one for the base and other at the top for spools were made in gravity die casting out of aluminum.







Speaker Box

Sizes of the Speaker box cover and Projector cover were kept same. This facilitated use of same basic moulds for vacuum forming. A cut out in the front gave opening for the speaker.

In the back side cover of the ‘speaker box’ a compartment with a hinged cover was introduced to store the connection wires.

Voltage Regulator

Standard Voltage regulater was redesigned to give a comaptible as well as exclusive look.

The story behind

We are used to present projects with photographs as old and new!

But what went behind, especially in the year 1971, in India, at IDC
becomes significant as a part of history of contemporary product design.

The narrative includes my reflections of learning at NID that enabled me
design the projector!

Do read the narrative to get a full picture!

Click to read Narrative.