



starts with the **piano-boards** which had none of the playability of organs but were the portable resistance boards which, mainly thanks to the continuing distribution of DC and the persistence of four-wall rentals, survived on Broadway until overtaken by memory.

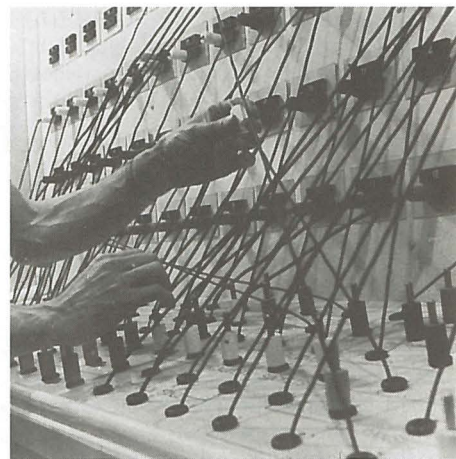
**Presetting**, whether manual or memorised allows preparation of a cue and reduces the number of operational hands required. The progress of a move to preset levels is **proportional**, ie all dimmers finish at the same time irrespective of distance of travel. With mechanically driven dimmers the move was non-proportional, ie since all the dimmers travelled at the same speed, those with shortest travel distance arrived earliest. Proportional dimming produces a more smoothly balanced cue: however in an ideal board each dimmer should be able to be given its own individual rate for each move – and in the most sophisticated systems this is possible.

One of the earliest dimmers was the **pole** on which candles were mounted behind each set of wings. By rotating the pole, the light could be diverted away from the stage. At Drottningholm all the candle poles can still be worked simultaneously from a master capstan in the prompt corner. Words associated with later dimmers include the organ **pistons** which allowed groups of channels (but not their levels) to be memorised; and **polarised relays** which, on the wheatstone bridge principle, allowed motor-driven dimmers to be declutched automatically on reaching a preset level. Resistance dimmers were very load sensitive and so their tolerance was given as a **plus-or-minus** (usually a third) appended to their kilowatt rating.

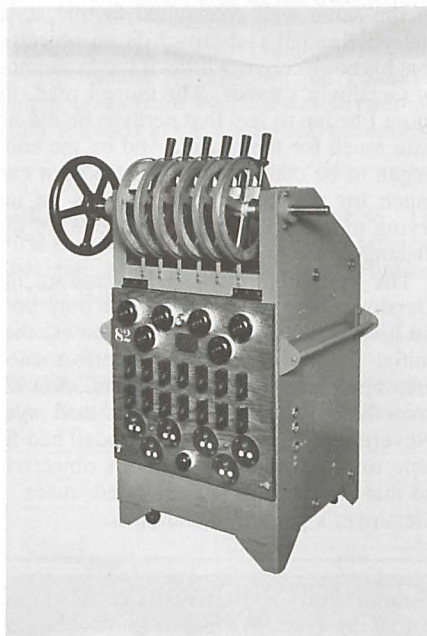
The earliest memory boards used **punch cards** to record the cue states. Inserting new cues was a simple matter of shuffling the cards but each time that one channel was altered half a point in rehearsal, the entire card had to be repunched. (And the printer was very noisy!). All boards need a **plot**, but with memory the plots use less paper and the plotting takes less time. It is only recently that **portable** has come to mean

what it says: the old portable dimmers were chunky trucks of 6 or 12 resistance dimmers and required multiple heave-ho to make them even remotely transportable.

**Patching** of loads to dimmers was always used rather more extensively in America than in Europe. Perhaps it was because the Americans tended to use a smaller number of higher quality dimmers while Britain opted for a large number of cheap ones. (Only subsidised central Europe could



*Patching.*



*Standard Strand 6-way interlocking portable board with slider resistance dimmers operated by tracker wires.*

afford a large number of quality dimmers.) Also the size of 110 volt cable encourages short runs. Certainly a patching frame enabled channels to be lined up for more logical working in an era of hand operation. And it was a useful means of transferring circuits from one part of the theatre to another. But load patching is now fading into history. Electronically it can be done manually by a **pin matrix** or it can be written into the microprocessor programme.

Which leaves **Palette** a word hijacked by Century for a product name but one which expresses the true function of each and every board.

*(to be continued)*



*Memo-Q desk with three punch-card readers for presetting (made by Grossmann and marketed by Strand in the early 1970s)*

# GET YOUR CUE REGULARLY

With an annual subscription you are sure of getting your own copy of CUE as soon as it is out—every issue. If you are not already a subscriber why not fill in the form overleaf today. If you are a subscriber give this form to a friend.

**ANNUAL SUBSCRIPTIONS**  
EUROPE & OVERSEAS: £13.00

*(six issues including airmail postage)*

UNITED KINGDOM: £10.50

*(six issues including postage)*

**Subscription  
Form overleaf**