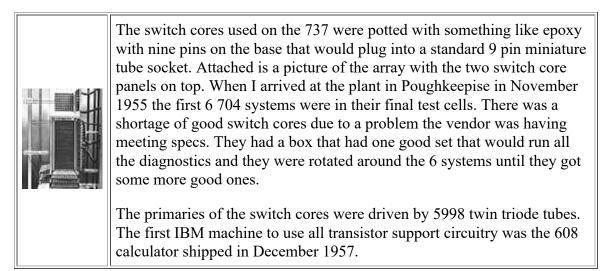# 704 Core Memory w Switch Cores

from John Van Gardner

[a bit of a story :-))]

> The last day of school they brought all the 1401 Design Engineers over to the school to talk to us. It was a very informal session where each Engineer would tell the section of the machine he was responsible for and we could ask any questions we wanted. When my turn came I told about my suggestion to make the machine scan and enter at the same time. I asked them if they had any other service aids on the Engineering model machine they needed but didn't put on the production machines. I was told there were none.
>
> The last Engineer to talk was the Memory man. He stood up and said, "I don't know what to tell you about the memory as I designed that and you wont have any trouble with it." Everyone was stunned. It seemed that was all he was going to say so I said, "If that's true then you wont mind giving us your home phone number as we will never need it". After a big laugh he got up and talked for almost an hour.

The 1401 magnetic cores were driven by switch cores as in the 737 memory used on the 704 system.

> The switch cores used on the 737 were potted with something like epoxy with nine pins on the base that would plug into a standard 9 pin miniature tube socket. Attached is a picture of the array with the two switch core panels on top. When I arrived at the plant in Poughkeepise in November 1955 the first 6 704 systems were in their final test cells. There was a shortage of good switch cores due to a problem the vendor was having meeting specs. They had a box that had one good set that would run all the diagnostics and they were rotated around the 6 systems until they got some more good ones.
>
> The primaries of the switch cores were driven by 5998 twin triode tubes. The first IBM machine to use all transistor support circuitry was the 608 calculator shipped in December 1957.

Van Gardner

You mentioned that triodes were 5998 "a 6AS7G look-a-like"

http://www.wimdehaan.nl/downloads/5998tungsol.pdf
Unfortunately the data sheet is so concerned about not cooking the plate
that it does not discuss pulse operation :-((