

Study of punch card and paper tape:

Punch card Joseph Marie Jacquard (.1752-1834) is credited with the first use of punched cards when in 1804 he employed punched cards to control the operation of a weaving loom. This loom could weave complicated patterns as defined by a number of punched cards. The cards, each of which had holes punched in selected positions to define the pattern, were arranged in a loop that rotated. The pattern would repeat as the loop had rotated once. As one card was selected in the loop, specific threads in the loom would be lifted according to the pattern of holes on the card. This mechanism employed rods pressing against the card and the shuttle passed behind the selected threads on its forward movement. The process was repeated with each card. The cards could be replaced as required.

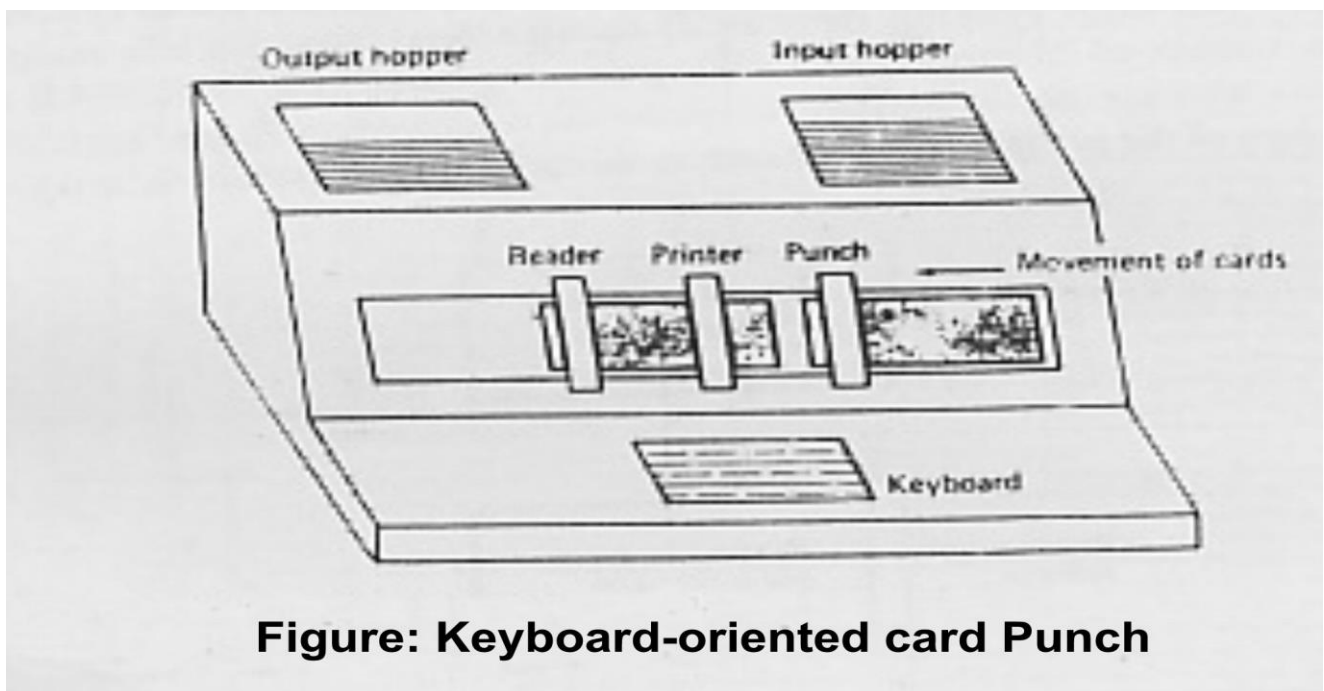


Figure: Keyboard-oriented card Punch

Punched Paper Tape. Another fading medium that has also been used for decades is **punched paper tape**. Small paper tape attachments are sometimes found on the typewriter like terminals that are used to prepare source documents or other messages. The input data and output information being produced by the terminal can be punched into a paper tape and then later entered into a computer by a *paper tape reader*. The 6-bit BCD code discussed in Chapter 5 is used to represent data. Paper tape provides greater data density than punched cards and is cheaper than cards. But it's harder to delete or add records to tapes (splicing is often necessary), and paper tapes are also easily torn and mutilated.