being made by the Post Office,[351] Census Bureau, telephone company, IBM, RCA, Veterans' Administration, OSRD, MIT, and various isolated inventors, but no general attack on the whole problem for all purposes. A foretaste of what might be accomplished is afforded by the Census Bureau, which from the original schedules punches cards and turns out completed, totalized, cross-tabulated, printed census volumes, without human activity, except to supervise the machines which read, compute, write, lithoprint, etc. The new art of Fiber Optics may help, whereby light can be sent along a flexible cable of quartz or glass fibers, each fiber conveying a different series of light impulses, from viewing a different part of a letter or picture (¶ 361).

[337] *Microprinting* is an art that ought to repeat, but faster, the history of its sister art Microfilming, which made a brilliant start in the pigeon post of besieged Paris in 1871, but has only recently come into wide use. Edison, Admiral Fiske and others have produced micro books, with, e.g., 72 pages put onto an ordinary 3 x 5 library card; but we still lack handy apparatus for producing and for reading them, e.g., by projection onto a wall, and wide diffusion of the reading machines, as with radio sets. Publishers of books, magazines, and newspapers show no interest in such inventions: naturally, they had rather sell big books at big prices, than tiny ones cheap, such as an encyclopedia in the size of a pamphlet. But the interest of the consumer, and of a well informed nation, is to have printed matter cheap and of almost no bulk, so that every middle-class home might afford and contain a sizable library of permanent and periodical literature and pictures. This form of miniaturization is a typical "nobody's baby," that almost everyone wants but no one is rewarded for raising. Grave copyright problems are also involved, since microfilming makes easy copying of print.

[338] *Radio facsimile telegraphy*, which would above all serve to broadcast newspapers to be printed in our home, recorded and preserved on microfilm, is an art related to the miniaturized book, and like it having a long past, a great future, and very little present. In wired form it was first patented in 1843,[352] developed to send photographs by Amstutz in 1881, and made practical by Korn in 1902. Radio transmission was attempted by Fessenden in 1906–14,[346] and was commercialized for radio photos across the ocean in 1926. It has since been developed to considerable perfection for news photos, and just before the Second World War was tried out by a number of newspapers in the form of an edition broadcast daily or hourly by radio, complete with photographs, drawings and advertisements, but in reduced readable format, to be received by anyone owning a suitable set. But when no way could be found to make such a radio newspaper pay for itself, they gave their apparatus to universities, and only the military and the *New York Times* continued in the field.[353] It is strange to find an invention of such unique power and obvious utility, that has gone back. A legal change could enable it to support itself, e.g., the privilege of taxing the special paper for home reception, commonly electrolytic. There are high advantages in a newspaper that could be delivered to every reading home mechanically, immediately when any news breaks, at any hour of the day or night, or at hours chosen by the subscriber, without his attendance, received and read silently, with pictures, and only those portions read that interest the