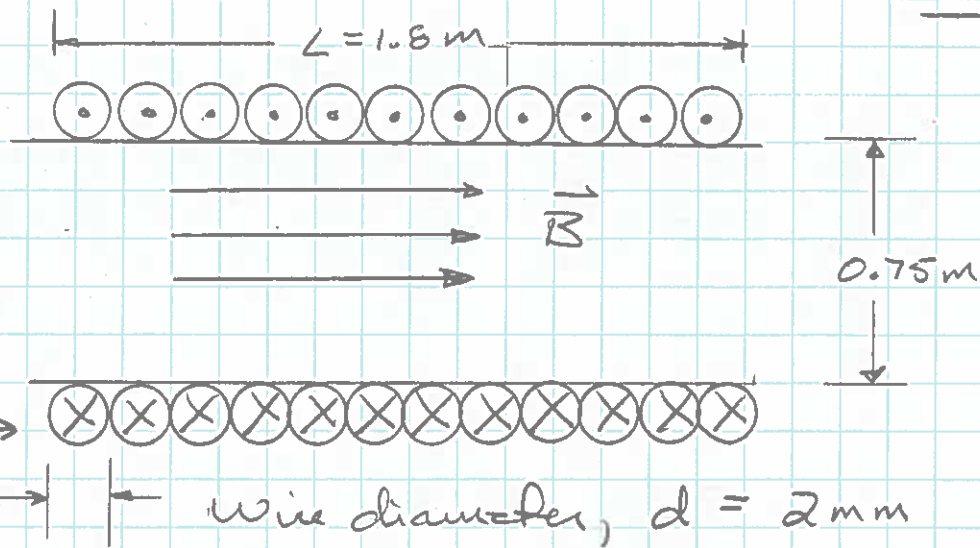


Solenoids

For wire tightly wound,  $L = Nd$

So,  $N = \frac{L}{d} = 900 \text{ turns}$ .

and,

$$B = \mu_0 n I = \mu_0 \frac{N}{L} I$$

$$\therefore I = \frac{BL}{\mu_0 N} = \underline{\underline{2381 \text{ A}}}$$

a very high current,  
that's why they use  
superconducting wires.  
No resistive heating.