For $\alpha, \beta = 1$

$p(x = r)$

The Binomial liklihood is given by

$$p(Y = y \mid r, N) = \binom{N}{y} r^y (1-r)^{N-y}$$

We know that the posterior density for r is proportional to the liklihood multiplied by the prior, and we also know, because our prior is a particular Beta density, and the Beta prior is conjugate to the Binomial liklihood that the posterior must also be a Beta density.

$$p(r \mid Y, N) \propto p(Y = y \mid r, N)\, p(r)$$

$$\propto r^y (1-r)^{N-y} \times 1$$

$$= r^{\alpha'-1} (1-r)^{\beta'-1}$$

Suggesting that the posterior is a Beta density with parameters $\alpha' = y+1$ and $\beta' = N-y+1$