Of 564 strains of bacteria isolated from cases of clinical mastitis between 1967 and 1971, approx. 50% were either Staphylococcus aureus or Streptococcus spp., 30% were Gram-negative bacilli (mainly Escherichia coli and Klebsiella spp.) and 20% were Corynebacterium spp. There were 45 mixed infections involving 2 organisms and 6 involving 3. In a survey of subclinical mastitis, milk samples were taken from (i) 203 cows in 11 herds with more than or equal to 10 cows and from (ii) 76 cows in 61 herds with <10 cows. Incidence of CMT-positive cows was (i) 47 and (ii) 55%. Bacteriological examination of 64 samples showed no growth for 27, whilst Streptococcus spp. were isolated from 14, Staph. aureus from 3, Escherichia coli from 3 and Corynebacterium spp. from 7. No significant differences between breeds (Friesian, Guernsey, Jersey, Ayrshire) were found, and since only 2 herds were machine-milked no conclusions could be drawn on this effect.