

We thus see that there is almost complete unanimity with poultry-breeders that, when fowls are kept at the same place, evil quickly follows from interbreeding carried on to an extent which would be disregarded in the case of most quadrupeds. Moreover, it is a generally received opinion that cross-bred chickens are the hardiest and most easily reared.<sup>37</sup> Mr. Tegetmeier, who has carefully attended to poultry of all breeds, says<sup>38</sup> that Dorking hens, allowed to run with Houdan or Crevecoeur cocks, "produce in the early spring chickens that for size, hardihood, early maturity, and fitness for the market, surpass those of any pure breed that we have ever raised." Mr. Hewitt gives it as a general rule with fowls, that crossing the breed increases their size. He makes this remark after stating that hybrids from the pheasant and fowl are considerably larger than either progenitor: so again, hybrids from the male golden pheasant and female common pheasant "are of far larger size than either parent-bird."<sup>39</sup> To this subject of the increased size of hybrids I shall presently return.

With *Pigeons*, breeders are unanimous, as previously stated, that it is absolutely indispensable, notwithstanding the trouble and expense thus caused, occasionally to cross their much-prized birds with individuals of another strain, but belonging, of course, to the same variety. It deserves notice that, when size is one of the desired characters, as with pouters,<sup>40</sup> the evil effects of close interbreeding are much sooner perceived than when small birds, such as short-faced tumblers, are valued. The extreme delicacy of the high fancy breeds, such as these tumblers and improved English carriers, is remarkable; they are liable to many diseases, and often die in the egg or during the first moult; and their eggs have generally to be hatched under foster-mothers. Although these highly-prized birds have invariably been subjected to much close interbreeding, yet their extreme delicacy of constitution cannot perhaps be thus fully explained. Mr. Yarrell informed me that Sir J. Sebright continued closely interbreeding some owl-pigeons, until from their extreme sterility he as nearly as possible lost the whole family. Mr. Brent<sup>41</sup> tried to raise a breed of trumpeters, by crossing a common pigeon, and recrossing the daughter, granddaughter, great-granddaughter, and great-great-granddaughter, with the same male trumpeter, until he obtained a bird with  $\frac{15}{8}$  of trumpeter's blood; but then the experiment failed, for "breeding so close stopped reproduction." The experienced Neumeister<sup>42</sup> also asserts that the offspring from dove-cotes and various other breeds are "generally very fertile and

<sup>37</sup> 'The Poultry Chronicle,' vol. i. p. 89.

<sup>38</sup> 'The Poultry Book,' 1866, p. 210.

<sup>39</sup> Ibid. 1866, p. 167; and 'Poultry Chronicle,' vol. iii., 1855, p. 15.

<sup>40</sup> 'A Treatise on Fancy Pigeons,' by J. M. Eaton, p. 56.

<sup>41</sup> 'The Pigeon Book,' p. 46.

<sup>42</sup> 'Das Ganze der Taubenzucht,' 1837, s. 18.