There is reason to believe that the non-success arose less from the unsuitability of the waters than from some defects in the method of handling the fry. Indeed the weak condition of the first batch of fry was noted at the time, and it was attributed to the hot weather. It is undeniable, however, that in spite of sultry conditions and untoward circumstances, fry can be successfully planted if knowledge and experience are available, and proper provision made to guard against all harmful influences.

The present brief notes on some neglected features in the newly hatched fry of fishes do not refer to any new scientific or biological points unfamiliar to the trained specialist. Nor are they intended to essentially modify the handling of eggs during incubation or the treatment of young fish after hatching. They refer to some points, familiar enough to the embryologist, and no doubt known to pisciculturists in general, but apt to be overlooked or neglected when the time comes each season for taking care of the newly hatched fry. These points have reference to peculiarities in the structure of the young fishes at the close of incubation, and upon their entrance into free life after leaving the egg. They are of importance, and by ignoring them the health and vitality of the fry may be impaired, and even loss of fry entailed.

First of all it is to be noted that the fry of fishes usually included in fish-culture operations possess enormous eyes. Lake whitefish, great lake trout, brook trout, pike-perch or wall-eyed pike, and other species, exhibit eyes of extraordinary dimensions, occupying in some cases fully one-third of the lateral surface of the head. No doubt the real significance of these large organs of sight, so disproportionate to the size of the microscopic larva must be explained on principals of development and evolution. They are like two black or densely coloured balls, which are readily seen long before hatching, and while the young fish is being formed inside the egg-capsule. They are so prominent and visible that the term "eyed-egg" stage is in common use amongst fish-culturists. To the practical man the possession of a pair of large sensitive organs of sight is a warning to him that the possessors are easily affected by rays of light. It teaches him that as far as possible reflected light should reach the tanks or vessels containing them. Hence direct rays and an excessive amount of light of any kind is not only unsuitable, but is highly injurious.

Glaring light, such as that produced by modern types of gas-burners which increase the luminosity of the inflammable medium, and incandescent electric-light devices, are to be strictly avoided. The sensitive eyes, with their large receptive pupils, cannot bear light so steady and piercing. Pisciculturists, as a rule, have arranged the windows etc., so as to shut out all excess even of day-light, and have done so mainly, because too much light was known to be favourable to vegetable parasites and algoid growths. Fungus has been generally held to be stimulated by abundant light. But the reason which above all should guide the fish-culturist in regard to light in hatcheries is the anatomical and physiological reason, viz: the perilous results to the fry, which excessive light inevitably brings, on account of the great size and unusually sensitive character of young fishes' eyes. As every one knows, the eyes are protruding and prominent and not shaded by eyebrows, eyelashes, or protected by movable eyelids, hence a glaring light which is painful to the visual organs of higher animals, is not merely disagreeable, but productive of morbid and fatal effects, if allowed to shine upon embryo fishes and fish-larvae.

During incubation a suitable amount of light is very necessary, or the development of the eggs will be delayed; but it must be reflected light of the sun, such as reaches them on the gravelly 'redds' or spawning grounds. Eggs of fishes being, in so many species, deposited in shallow parts of the upper reaches of rivers, where the water usually is swiftly running, and broken up into ripples, each ripple and crystalline wave acts as a refracting prism, breaking the glancing bright rays of the sun into scattered reflections of light. Thus the solar rays even at midday are bent by the uneven surface of the rushing water, and directed into the hollows, the interstices, and shadowy ridges of the gravel and boulders beneath the surface. Many pisciculturists have learned to their bitter cost, that, too much light especially, when accompanied by a high temperature is most unfavourable, hastening unduly the progressive stages of development during the incubation of the eggs, and resulting in weak and sickly fry which are unable to survive through the first few