

magnification or more easily by aid of a low power lens. The males are smaller than the females. They also are distinguished from females in having the posterior-ventral part of the abdomen pigmented. There is a difference in the sexes in the duration of the embryonic stages. More interesting still but somewhat difficult to see, the males have on their front legs relatively immense "sex combs."

The chief drawback of *Drosophila* is its small size, but large size and short generations are incompatible. Moreover the training involved in handling small things is of itself valuable.

### THERMOMETRIC CONVERSION.

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As a teacher of high school Physics, I labored faithfully to impress permanently on the mind that the two familiar formulæ  $C = 5/9 (F - 32)$  and  $F = 9/5 C + 32$  in such wise that they would always be at fingers' end for use. My failure I attributed to faulty methods. Since my connection with the Lawrence Scientific School at Harvard, I have noticed that not over fifty per cent of the men passing the entrance examinations can correctly use the formulæ and not one man in ten among the advanced students can apply them quickly, although most of them can figure them out. I find they, like my students, are forever in doubt whether to add, or subtract, the thirty-two degrees before or after multiplying.

In my high school teaching I once merely suggested a method, which so far as I know is original, and found a year after that most of the students were working their conversion problems by that method, which I had mentioned but once.

Most people are aware that forty below zero Fahrenheit is the same as forty below in Centigrade. If then we simply add forty to whichever reading we wish to convert we have it at common zero, so to speak, then we multiply by five ninths or nine fifths as the case may be and again subtract the forty to get it to zero reading. Thus:

$$68^{\circ} \text{ F} + 40^{\circ} = 108^{\circ} \times 5/9 = 60^{\circ} - 40^{\circ} = 20^{\circ} \text{ and}$$

$$60^{\circ} \text{ C} + 40^{\circ} = 100^{\circ} \times 9/5 = 180^{\circ} - 40^{\circ} = 140^{\circ} \text{ F.}$$

The method is not any shorter but the virtue of it is that when the attention is called to the facts once the student will remember them indefinitely. I submit it for what it is worth.