Number of leucocytes per cubic mm = $\frac{\text{Number counted} \times \text{Dilution} \times 10}{\text{Number of 1 sq. mm. counted}}$

Experiment (3) : **Find out the haemoglobin percentage of your own blood.**

Requirements : Haemoglobinometer and N/10 HCl.

Procedure : (1) Prick the finger as described earlier, discard the first drop and suck the blood in the pipette upto 0.2 ml mark.

(2) Transfer the blood into the carefully cleaned haemoglobinometer tube containing small amount of N/10 HCl.

(3) Add N/10 HCl again drop by drop into the tube and constantly match the colour of the mixture with the colour of adjacent tubes of either side of the instrument. Continue this until the colour of the mixture exactly matched with the standard colour.

(4) Find out the end point. It may be found out by noting the point where the colour of the solution becomes lighter by addition of very next drop. Take more than one reading to avoid error. The amount of haemoglobin in the above experiment comes to 14.5 gm. By addition of N/10 HCl, a definite quantity of haemoglobin is converted into acid Haematin

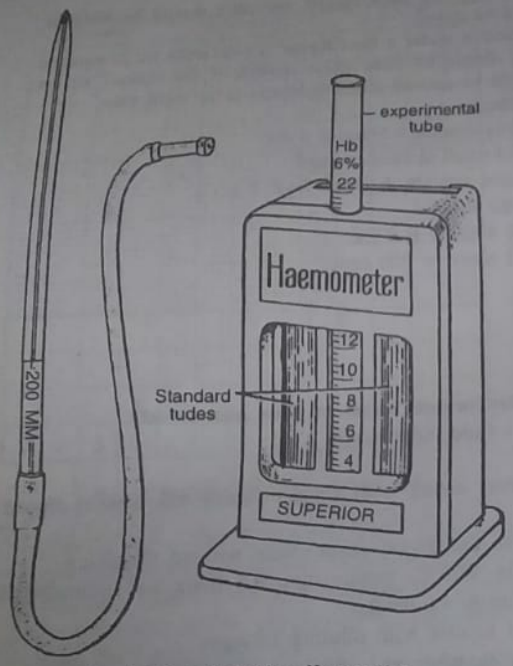

Fig. 14. Gower's Haldane Haemometer.

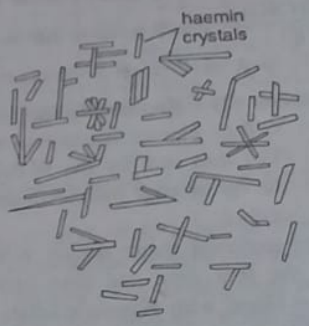

Fig. 15. Haemin crystals.

Experiment (4) **: Preparation of haemin crystals.**

Procedure : Haemin crystals may be prepared from your own blood.

(1) Wash your hands with the soap, clean the middle finger with the rectified spirit and allow it to dry in the air.

(2) Prick this cleaned finger with the sterilized needle smartly and take a drop of blood on the clean slide.

(3) Allow the blood to dry completely.

(4) Put a drop of glacial acetic acid and dry the slide over the Bunsen's burner or spirit lamp.

(5) Cool the slide and examine it under microscope.

Observation : Steel grey small **haemin crystals** are seen in large numbers. The blood drop with glacial acetic acid forms acid haematin which on heating forms haemin crystals.