application of a permanent magnet as an 'ion trap' on television picture tubes.

Strangely enough, the use of the magnet has twice been observed to have the opposite of the desired effect. That is, a glow discharge was initiated when the magnet was brought near the furnace, and extinguished on removal of the magnet.

No attempt will here be made to suggest how the magnet succeeds (or rarely, does not succeed) in eliminating a glow discharge. Suffice it to say that the success has been just short of perfection, and the more gratifying because it was attained at little expense and much convenience.

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Visible Twist on Sodium Chloride Whiskers

It is well known from Eshelby's¹ work that a whisker containing an axial screw dislocation will have the form of a twisted rod. Sodium chloride whiskers have been grown in which such a twist was quite visible to the naked eye.

The whiskers were prepared by a modification of Evans's method². A small sodium chloride crystal grown from the melt was placed in a solution of sodium chloride, containing a small amount of polyvinyl alcohol. The whiskers grew on this seed-crystal. The mean length of the whiskers was 150 mm., their thickness 1–30 μ and they were rectangular in cross-section. Some of the whiskers, mainly the thinner ones, were spiral. The twisted form was easily visible to the naked eye: with suitable light brighter and darker spots became visible along the lengths of whiskers, because due to their twisted form only some parts of them reflected the light. The distances between light spots on most of the crystals were 1–40 mm. and they were uniformly distributed along the length of the whiskers. It is suggested that this is probably a twist described by Eshelby. He gives the formula for the twist per unit length as follows:

$$\text{twist } \alpha = k \times \frac{\text{Burgers vector } b}{\text{area of whisker cross-section } A}$$

where k is a constant depending on the shape of the cross-section. The Burgers vector of the screw dislocation calculated with this formula results in values of 60–240 Å. These are the results of measurements carried out on twelve whiskers. Webb³ obtained similar results among others by the X-ray diffraction method.

In our opinion, polyvinyl alcohol plays little part in the production of whiskers, because Gyulai⁴ also found spiral whiskers in aqueous solution of potassium bromide containing no polyvinyl alcohol. The whiskers were tested by twisting. Fig. 1a shows a spiral whisker having eleven light-spots. The same whisker is shown in Fig. 1b, twisted outwards through 360°. It can be seen that the number of light-spots has diminished by four. Twisting further through 360°, the number of light-spots diminished to three (Fig. 1c). Twisting the whisker through 990°, it became quite smooth, and light-spots were no longer

Fig. 1. *a*, Naturally twisted sodium chloride whisker (original length); *b*, the same whisker twisted through 360°; *c*, the same whisker twisted through 720°; *d*, the same whisker twisted through 990°; *e*, the same whisker, one of its ends cut off after twisting, and the whisker quite twisted back

visible (Fig. 1d). If one end is cut the whisker twists back again. After this twisting-out the twisting-back phenomenon was observed in each test. In most cases the whisker was almost completely twisted back. It appears that this phenomenon disagrees with Eshelby's suggestion, according to which after a certain twisting the dislocation leaves the whisker. There may be several explanations.

Further investigations on whiskers are in progress. A detailed paper will be published in *Acta Physica Hungarica*.

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Weissenberg Effect in the Thick White of the Hen's Egg

WHEN a vertical rod is rotated in certain liquids, the liquid climbs up the rod. This phenomenon was apparently first observed by Weissenberg and Russell¹, and in 1949 Reiner, Scott Blair and Hawley² suggested that it be described as the 'Weissenberg effect'.

Its theory is not clear and has been discussed by Garner and Nissan³, Rivlin⁴, Reiner *et al.*⁵ and Roberts⁵. The effect occurs only rarely and has