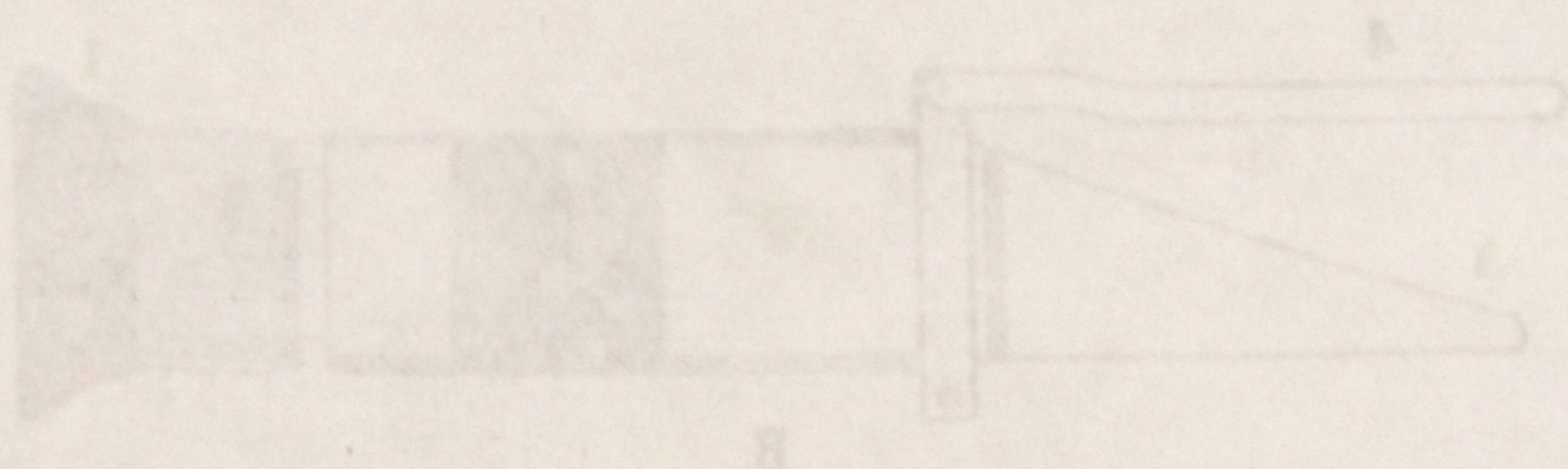
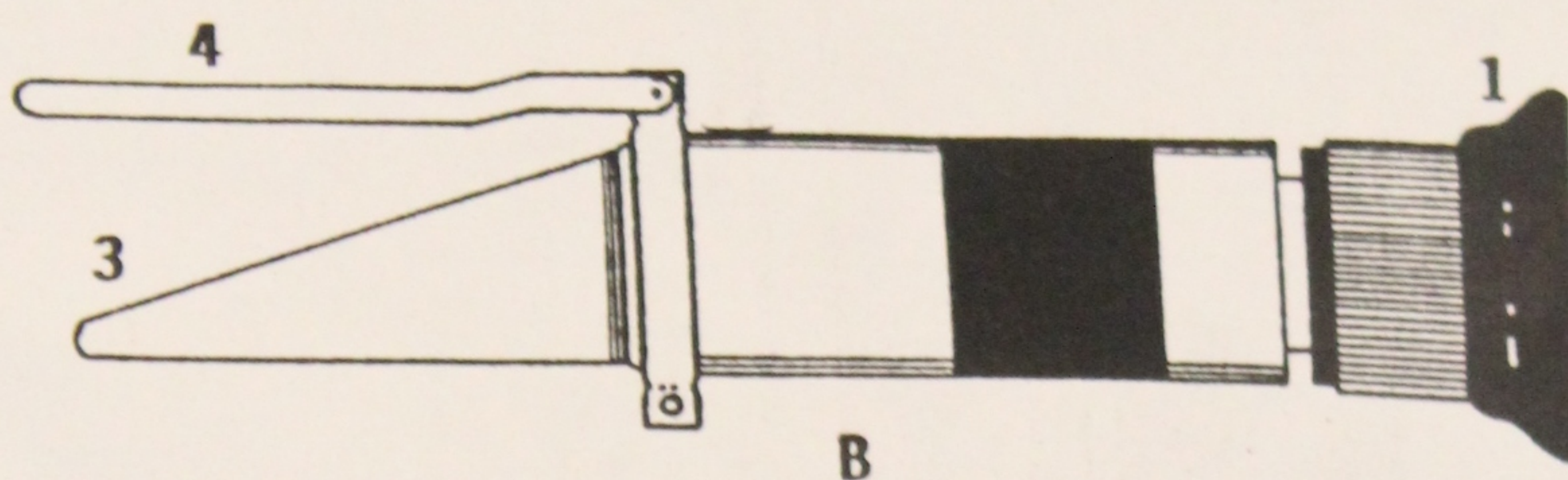
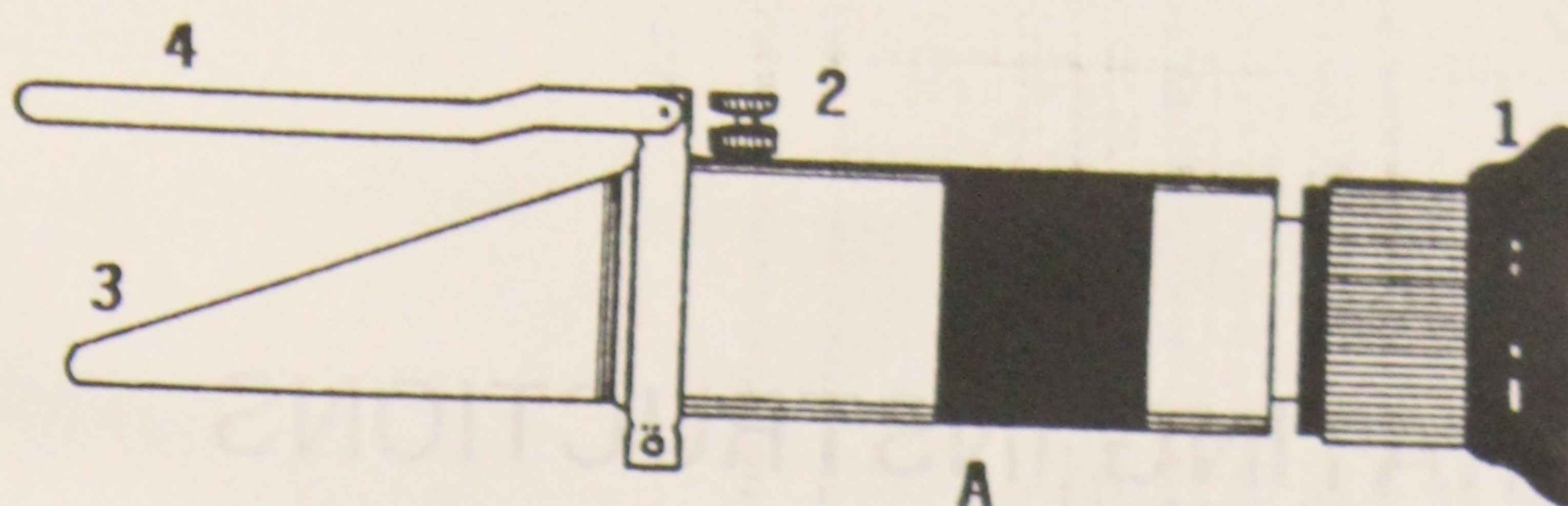


OPERATING INSTRUCTIONS STARCH REFRACTOMETERS



KERNCO INSTRUMENTS CO, INC.
420 Kenazo Avenue, El Paso TX 79927
Phone: 915-852-337



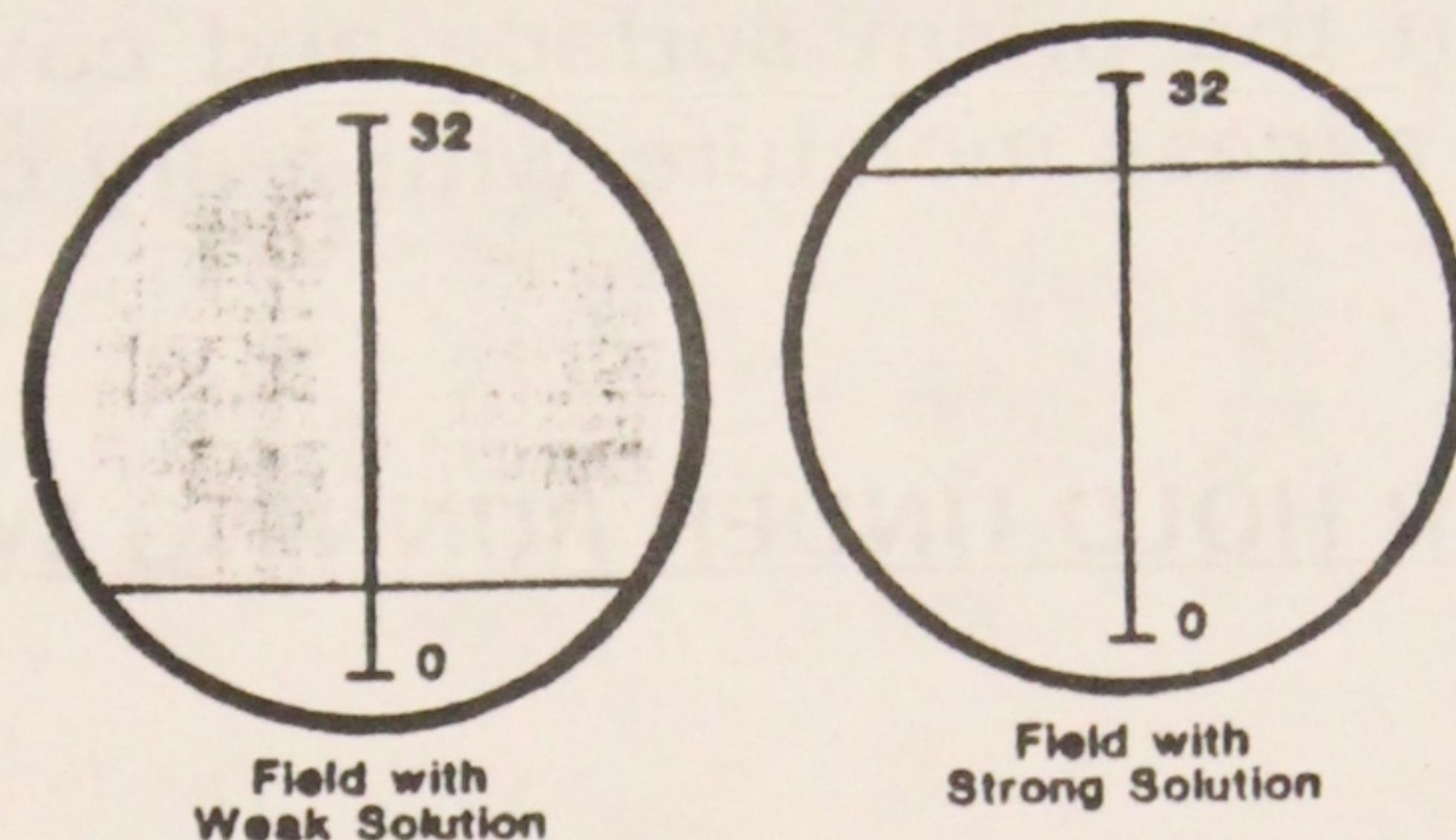
DESCRIPTION

1. Eyepiece - used to focus scale
2. Calibration Adjustment - used to calibrate the instrument to distilled water, a known test liquid, or a glass test piece
3. Prism - is the main prism on which the sample is placed
4. Cover (Secondary Prism) - closes against the main prism insuring proper wetting of the prism and sample thickness

OPERATION

DO NOT SUBMERGE OR HOLD UNDER RUNNING WATER

1. Make sure main prism (3) and cover (4) are clean. Clean with a soft moist cloth; then dry thoroughly.
2. Lift cover lid and place 1 or 2 drops of sample on the prism (3).
3. Gently close cover (4) - avoid air bubbles between prism and cover.
4. While looking through the eyepiece (1), point the refractometer toward any convenient light source (lamp, skylight, etc.).
5. The scale and borderline (see below) should be visible.



6. Adjust the eyepiece (1) for the sharpest image possible.
7. Read the value at the point where the borderline crosses the scale.
8. Correct for temperature as described in the temperature correction section of these instructions.
9. Clean prism and cover immediately after use.

CALIBRATION

Measure distilled water having a temperature of 20°C. If the borderline does not coincide with 0%, make the correction by rotating the scale adjusting screw (2).

TEMPERATURE COMPENSATION

Temperature compensation is based on the premise that 1 or 2 drops of liquid (regardless of temperature) placed on the relatively large prism area will assume instrument temperature almost immediately. In automatic temperature compensating refractometers, a heat sensitive metal strip within the body of the refractometer shifts the scale up or down, compensating the temperature of the sample to 20°C.

PRECAUTIONS

1. Hold the refractometer between the thumb and four fingers of one hand; use the other hand for adjusting the eyepiece and manipulating the sample. Do not hold the refractometer by enveloping the entire tube with the palm of the hand.
2. When the sample is severely turbid or colored, the field of vision darkens and the borderline may become unclear or completely disappear. In this case, it may be advantageous to use direct sunlight or other bright light.
3. The refractometer is an optical instrument; do not drop or abuse.
4. The prism has a relatively soft surface; care must be taken to avoid scratches.
5. After use, clean the prism surface and cover with a moist soft cloth. Remove excess moisture with a dry cloth.

DO NOT SUBMERGE OR HOLD UNDER RUNNING WATER

RETURN OF ITEMS

Authorization must be obtained from our Customer Service Department before returning items for any reason. When applying for authorization, please include data regarding the reason the items are to be returned. For your protection, items must be carefully packed to prevent damage in shipment and insured against possible damage or loss. Kernco Instruments will not be responsible for damage resulting from careless or insufficient packing.