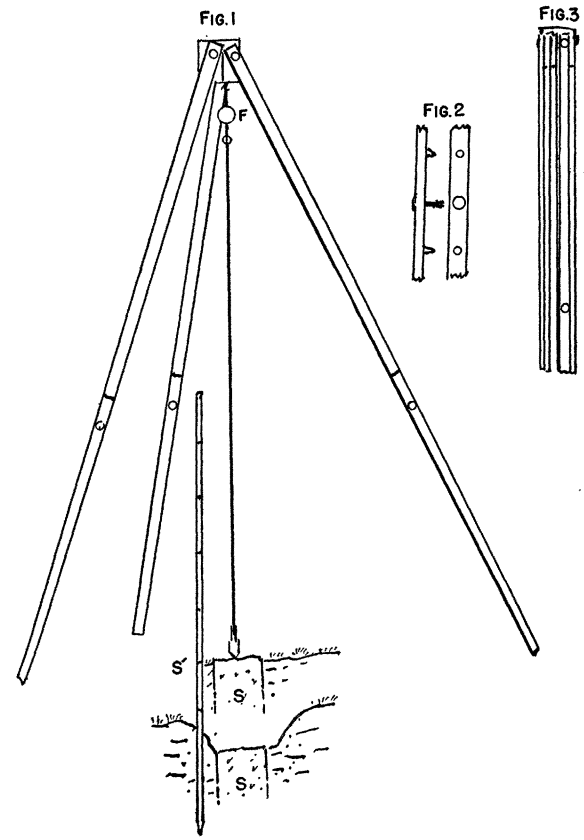
A LOW-PRICE STATION INDICATOR

IN surveying rather accurately limited private or company holdings one frequently feels the need of some device for use as a temporary target where ordinary ranging poles are quite unsatisfactory—unsatisfactory for two reasons: First, modern asphalt, paving and surfacing work in general as well as permanent rock, concrete or metal markers do not permit of driving in a sharpened flag-pole at the exact station center; and second, if off center, as shown by S′, Fig. 1, near a station S, visible or depressed below the reach of the plow, the transitman can make use of it in but one position, *viz.*, when he, station S and rod S′ are exactly in line, otherwise grave errors are introduced.

A long-legged, home-made tripod helps matters out greatly and saves more than its cost in a few hours' work.

Take a triangular prism 4 to 6 inches long and to each face bolt a slat $\frac{5}{8}$ in. thick, by 1 to $1\frac{1}{2}$ wide and seven or eight feet long, as indicated by Fig. 1. These slats may be jointed so as to fit tightly together and fold as indicated in Figs. 2 and 3. Nuts with wings should be selected. A screw hook and plummet are for objects self-explanatory. As the "bob" is too near the ground for convenience in sighting, a hollow rubber ball, F, may be slipped over the plumbline and will stay put at any desired elevation, the higher the better for observation and eliminating pendulous movements of the "bob."

The upper portion of this tripod when painted white is very conspicuous and easily picked up by the telescope, while the white plummet, or the rubber



sphere if painted white or red and white serve for refined sighting.

The cost of material and labor is $3.00.

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SPECIAL ARTICLES

LIGHT IN RELATION TO DORMANCY AND GERMINATION IN LETTUCE SEED

THE light-sensitivity of prepared photographic film is now so familiar as to be rated a commonplace; but that an exposure of a few seconds may mean the difference between no germination and complete germination in moist lettuce seed has only recently been appreciated through the studies here reported. Since "dormant" lettuce seed so exposed to light may be germinated in 24 hours in distilled water the material proves to be unusually well adapted to the study of light as a potential factor in "dormancy" and germination.[1]

The following results obtained with a 60-watt Mazda bulb as a source of light indicate some of the general characteristics of light in relation to the germination of "dormant" lettuce seed:

(1) ATTAINMENT OF MAXIMUM SENSITIVITY TO LIGHT

Variety: Big Boston
Culture medium: Water
Temperature: 25° C.
Illumination: 600 foot-candle minutes.

Time of soaking in minutes	Percentage germination
10	20.3
30	53.8
50	62.1
60	66.7
80	74.6
100	90.5

[1] In July, 1933, at a meeting of the Association of Official Seed Analysts of North America, A. L. Shuck presented a paper in which it was stated that the beneficial effect of presoaking "dormant" lettuce seed at low temperatures was largely due to light rather than to soaking.