

# **Badische Landesbibliothek Karlsruhe**

**Digitale Sammlung der Badischen Landesbibliothek Karlsruhe**

## **The young man's book of amusement**

**Halifax, 1848**

To place Four Poles in the Ground, precisly at an equal distance from each other

[urn:nbn:de:bsz:31-100120](https://nbn-resolving.org/urn:nbn:de:bsz:31-100120)

half the number she had, and half an egg more; at the second the half of what remained, and half an egg more; and at the third, the half of the remainder and half an egg more; when she arrived at the market-place, she had three dozen still to sell, how was this possible, without breaking any of the eggs?

## SOLUTION.

It would appear on the first view, that this problem is impossible; for how can half an egg be sold without breaking any; The possibility of it however will be evident when it is considered, that by taking the greater half of an odd number, we take the exact half  $\frac{1}{2}$ . It will be found, therefore, that the woman, before she passed the last guard, had 73 eggs remaining, for by selling 37 of them at that guard, which is the half  $\frac{1}{2}$ , she would have 36 remaining. In like manner, before she came to the second guard, she had 147; and before she came to the first, 295.

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*To place Four Poles in the Ground, precisely at an equal distance from each other.*

Let three of the poles be placed at equal distances, so as to form a triangle; when, imagining a mound of earth in the shape of a pyramid to be raised on that triangle as a base, having one of its slant sides equal to the distance between any two poles, then placing the fourth pole on the apex of the pyramid, the puzzle is answered.