

# Essays on Kite Word Origin and Patents

*By Ed Grauel*

## Origin of the Word 'Kite'

To the best of present knowledge, the word "kite" stems from the Old English "cyta," meaning a bird of prey of the hawk family and distinguished by long pointed wings and a forked tail. The bird was also called a "glade" in England and was fairly common there during the Middle Ages.

According to Clive Hart, the first use of the word "kite" in print to represent a heavier-than-air craft, designed to fly on a tether line, was in 1635 in a book called *Pyrotechnia* by J. Babington. Since the word was used without any explanation, it may be assumed that it was familiar in England for some time before this date. Between 1430, when the first full description of a flying object was rendered in English, until 1635, it had been variously called "flag," "flying dragon," "comet," "flying sail," and "drake."

A few languages, other than English, also use some type of bird to represent what we call a kite, but a translation of the word "dragon" is the most common designation.

While the "e" in kite is not pronounced in English, by rules of pronunciation it indicates that the vowel between "k" and "t" is pronounced as a long "i."

## The First Kite Patent

Seventy-six years after the United States Patent Office was established, the first patent for a kite was issued, on Jan. 2, 1866, to Thomas Perrins, of Philadelphia.

The patent covered a six-sided hexagonal kite with a spreader connecting the two lateral corners, plus two curved masts, fastened together about one-third of the distance from the top, to connect the top and bottom corners.

Why the masts are curved rather than straight isn't mentioned in the patent. As a matter of fact, no claims for the value or usefulness of the idea are made, possibly because this was the very first application for a kite patent and no precedents were involved.

A similar kite, but with straight masts, was evolved at the Kew Observatory in England in 1847, for the purpose of carrying meteorological instruments aloft. This was called the Birt kite, although later the hexagon-shaped kite became known as the "barndoor" or "house" kite.

Obviously the U.S. Patent office did not know about the Birt kite, otherwise a patent would have been denied because of prior art.

## Search Words for Kite Patent Descriptions

Editor's note: The author emphasizes that the following is his own concept.

### 1. Generic Kites

Flat. Plane-surface kite with two dimensions, vertical and horizontal. Includes two-dimensional kites which may bow rearward under wind pressure.

Bowed. Any kite which has wingtips rearward from the center mast and with the bowing maintained by means of a bow string or other fixed means.

Box. Cellular kite with three or more sides held open by means of struts, or by wind pressure, on one or more of the sides.

Keeled. A kite which has a third dimension protuberance usually at right angles from the face of the kite, to which the flying line is attached.

Parachute. A flexible umbrella-like canopy with multiple shroudlines attached to the edges, held open

by air pressure.

**Sled.** A rectangular canopy, with usually two or more vertical struts, held open by air pressure to form a semi-rigid kite.

**Parawing.** A nonrigid kite of two or more conic sections and a simulated keel, formed by use of flexible material and multiple bridle lines which hold the form in shape under wind pressure.

**Parafoil.** A nonrigid kite with a frontal canopy and rear air channels, which provide vertical stiffening.

**Rotor.** A rigid wing or cylindrical surface acting as a continuous-revolving rotor, plus one or more disks secured to the rotor to achieve stability. The kite rises as a result of the Magnus Effect (think baseball curveball).

**Autogyro.** One or more horizontal propellers on the shaft connected to a fuselage.

## 2. Shape of Kite

Arrow, bird-shaped, butterfly-shaped, circular, concave, delta-wing, diamond, 5,6,7,8-sided, half-diamond, oval, pot-shaped, rectangular, shield-shaped, square, star-shaped, triangular.

## 3. Type of Kite

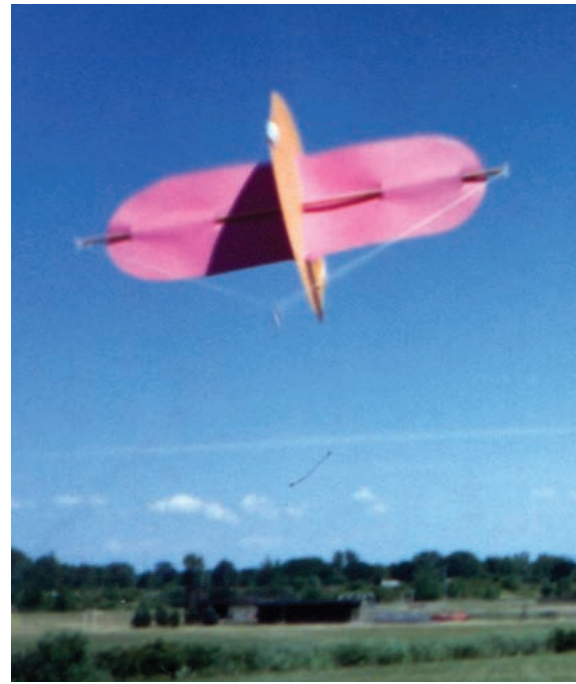
Airplane-type, canopy, control, fighter, flying saucer, folded-paper, glider, hang glider, multi-line, rotating, rocket, tetrahedral, trihedral, winged box.

## 4. Kite Characteristics

Air channel, conical section, flexible wing, inflatable, lighter-than-air, non-rigid, ram-air, rudder, semi-rigid, 2,3,4,5,6-stick.

## 5. Other

Construction, control bar, cord winder, drogue, hand-controller, kite-reel, line-traveler, spinner, struts, tail, windsock.



*A Rotor kite in flight.*

# First Reference

The following refers to the Emperor Wu, who founded the Liang dynasty of China in 502 A.D.:

“In 1449, when his enemies besieged Jiankang (now Nanking), Wu sent a kite aloft to inform allies outside the city of his plight. The ploy, which resulted in the earliest written reference to what was apparently a Chinese invention—the kite—failed to save the city or Emperor Wu, who was imprisoned and left to starve to death in his palace.”

From *Empires Beseiged: AD 200-600*, Time-Life Books, 1988.

*The first kite was flown a billion years ago.  
Don't you remember?*

—Scots saying