June 1, 1948. S. LANG 2,442,417

KITE

Filed Nov. 18, 1946 2 Sheets-Sheet 1

Fig. 1.

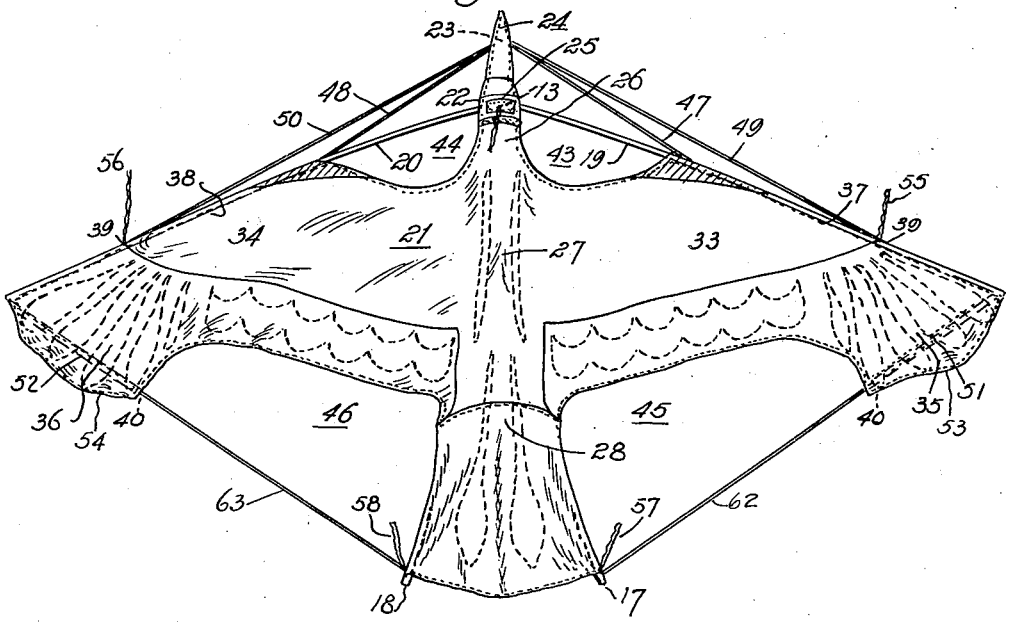
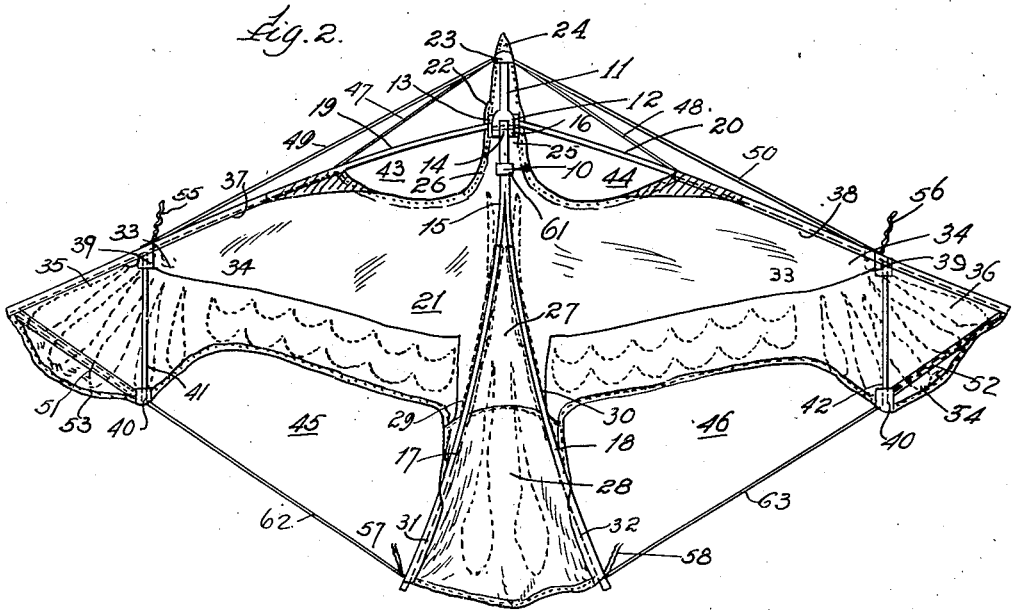


Fig. 2.



Inventor.
Sandy Lang.
by McKnight and Comstock
Attorneys.

June 1, 1948. S. LANG 2,442,417

KITE

Filed Nov. 18, 1946 2 Sheets-Sheet 2

Fig. 3.

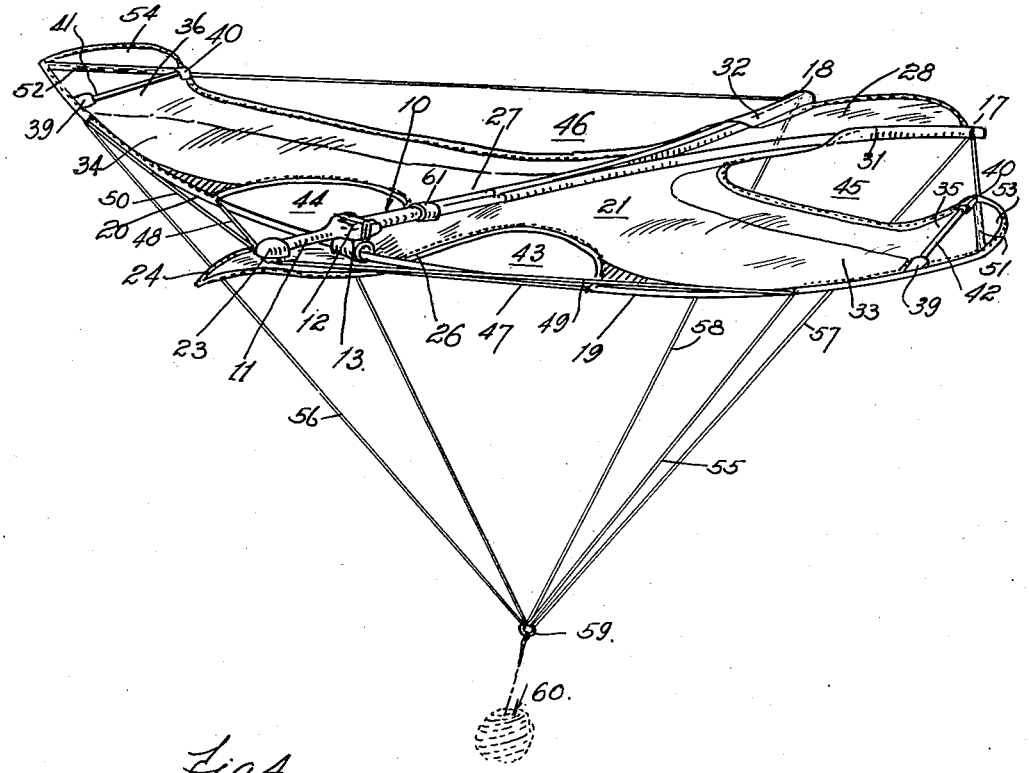


Fig. 4.

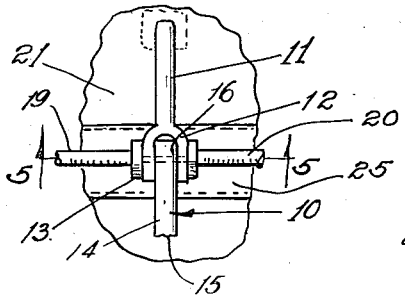
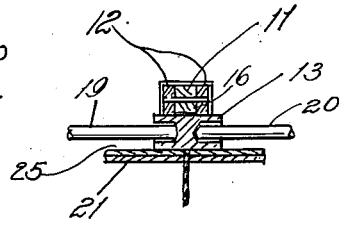


Fig. 5.



Inventor.
Sandy Lang.
by McKnight and Comstock
Attorneys.

Patented June 1, 1948 2,442,417

UNITED STATES PATENT OFFICE

2,442,417

KITE

Sandy Lang, Chicago, Ill.

Application November 18, 1946, Serial No. 710,602

2 Claims. (Cl. 244—153)

1

This invention relates to a kite having the flying characteristics of a bird, and which has improved take off and easier control.

Among the objects of my invention is to provide a kite adapted to take off in the slightest wind and with the slightest effort; to create a kite with extended wings and a tail; to supply a kite having wings pivoted to flap to increase flying; to provide a kite easy to control and which has the minimum of pressure and tension on the person flying the same; to produce a kite adapted to do flying stunts within the control of the flyer; to create a kite adapted for flight of unusual height and duration; to supply a kite having the flying characteristics of a bird and which can be used as a toy, a target or for scientific tests and data.

My invention also contemplates such other objects, advantages and capabilities as will later more fully appear and which are inherently possessed by my invention.

While I have shown in the accompanying drawings a preferred embodiment of my invention, yet it is to be understood that the same is susceptible of modification and change without departing from the spirit of my invention.

Referring to the drawings, Fig. 1, is a bottom elevational view of a kite embodying my invention; Fig. 2 is a top elevational view of the same; Fig. 3 is a top perspective view of the same; Fig. 4 is a detailed plan view of the head rod assembly; and Fig. 5 is detailed sectional view on line 5—5 of Fig. 4 of the head rod assembly.

The embodiment selected to illustrate my invention comprises a frame 10 having a vertical head rod 11 with a bifurcated lower end portion 12, to the front of which is attached a sleeve 13.

The upper end 14 of tail rod 15 fits within opening 16 of the lower end of bifurcated head portion 12. Tail rod 15 extends downwardly a short distance and is then split into two tail rods 17 and 18 which curve downwardly and outwardly, the distance between them increasing gradually to the widest distance at their bottom ends.

A pair of wing rods 19 and 20 have their inner ends pivotally mounted in opposite openings of sleeve 13. The wing rods extend horizontally at a downward and slightly inward angle.

A fabric facing 21 is attached to frame 10 as hereinafter set forth. Facing 21 simulates to some extent the structure of a bird and has an elongated head portion 22 to the upper inner portion of which is attached socket 23 which receives the upper end of head rod 11. Above

2

socket 23, head portion 22 ends in a beak portion 24.

Attached to the lower end of head portion 22 is reinforced throat portion 25 against the inner portion of which rests sleeve 13. Attached to the lower end of throat portion 25 is a neck portion 26 and integral therewith and therebelow body portion 27.

Attached to the lower end of body portion 27 is tail portion 28, which is full skirted. Spaced outwardly curved pockets 29 and 30 are attached to body portion 27 and the opposite upper sides of tail portion 28 and house the upper and middle portions of tail rods 17 and 18. The lower opposite sides of tail portion 28 are rolled over and sewed on themselves to form outwardly curved end pockets 31 and 32 holding the ends of tail rods 17 and 18.

The facing 21 has a pair of wing portions 33 and 34 integrally joining body portion 27. Said wing portions 33 and 34 have integral extensions 35 and 36, at their outer ends.

Attached to the outer ends of extensions 35 and 36 and continuing inwardly on the upper edges thereof and the inner edges of the wing portions 33 and 34 are pockets 37 and 38 which house the greater portion of wing rods 19 and 20.

At the upper and lower inner edges of extensions 35 and 36 are attached upper sockets 39 and lower sockets 40 to receive the opposite ends of strut rods 41 and 42.

Between the inner ends of pockets 37 and 38 of wing portions 33 and 34 and throat portion 25 are downwardly curved spaced openings 43 and 44.

Tail portion 28 extends below wing portions 33 and 34 and between them are spaced openings 45 and 46.

Wing rods 19 and 20 extend across openings 43 and 44.

Guy lines 47 and 48 extend from the inner ends of pockets 37 and 38 to socket 23. Guy lines 49 and 50 extend from opposite upper sockets 39 to socket 23.

Guy lines 62 and 63 extend from lower sockets 40 to pockets 31 and 32 adjacent their lower ends. Continuing in the same direction as guy lines 49 and 50 are stitched portions 51 and 52 which extend across extensions 35 and 36 from lower sockets 40 to the upper outer corners of extensions 35 and 36 leaving loose flaps 53 and 54 therebelow.

A pair of lead lines 55 and 56 lead from the tops of wing portions 33 and 34 adjacent their outer ends. Another pair of lead lines 57 and

58 lead from opposite sides of the tail portion 28 adjacent its bottom end. A fifth lead line leads from throat portion 25. The inner ends of said lead lines are attached to said portions from which they lead. The outer ends of said lead lines are attached to a ring 59 to which is attached a ball or length of cord 60.

In use my kite easily takes off in the slightest wind. The wind moves the wings outwardly to aid in flight. The spring action of the tail rods 17 and 18 forces the wings back to normal position upon release of pressure. A reinforcement 61 on tail rod 15 at the part of bifurcation prevents pressure from splitting rod 15 into two separate parts.

Having thus described my invention, I claim:

1. A kite comprising a vertical head rod, a tail rod attached at its upper end to the lower end of said head rod, said tail rod bifurcated to provide a pair of integral spaced outwardly curved lower tail rods, a sleeve attached to the front of said head rod, a fabric facing having a head portion, a reinforced throat portion attached to the bottom of said head portion, a body portion attached to the bottom of said throat portion, a pair of wing portions integral with said body portion, and a tail portion attached to bottom of said body portion and extending below said wing portions, said wing portions having outer end extensions, the outer end of said head rod attached to said head portion, pockets attached to the upper edges of said extensions and said wing portions, the outer ends and portions of said wing rods housed in said pockets and the inner ends pivotally mounted in opposite ends of said sleeves, spaced outwardly curved pockets attached to said body portion and said tail portion,

the lower ends of said spaced tail rods housed in said last mentioned pockets, lead lines leading from and attached at their outer ends to the outer top edges of the wing portions, the lower sides of the tail portion and the throat portion, and a control cord of desired length attached to the inner ends of said lead lines.

2. A kite comprising a vertical head rod, a tail rod attached to the bottom of said head rod bifurcated at its upper portion to provide a pair of outwardly curved spaced spring portions therebelow, a pair of wing rods pivotally mounted on their inner ends to said head rod, a facing attached to and covering the front of said rods, said wings being normally held in retracted position by the spring action of said tail rod, said wings adapted upon receipt of wing pressure thereon to move outwardly to flap for flight of the kite, and lead lines leading from and attached to said facing, and means attached to said lead lines for controlling the kite.

SANDY LANG.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
743,301	Lischtiak	Nov. 3, 1903
1,029,010	Guillo	June 11, 1912
1,381,264	Wilcox	June 14, 1921

FOREIGN PATENTS

Number	Country	Date
481,617	Great Britain	Mar. 15, 1938