

KITES, AND HOW TO MAKE THEM.



ON page 84 of this volume we gave an interesting picture and description of the "Ching - Yaong," or Kite-flying festival in China, with a few words on Chinese kites and kite-flying in general. That article, as shown by the number of letters we have since received on the subject, evidently proved one of great interest to our readers, and we accordingly determined to take the earliest opportunity of giving a thoroughly practical and comprehensive paper on kites and how to make them. The opportunity now occurs, and we doubt not hundreds of boys will thank us as well as the ingenious and genial author for the details supplied. The writer of the article is an American, Mr. Daniel C. Beard, and he vouches for the fact that he describes no kite that he has not first constructed, or tested, or about which he has not ample proof that it is within the capacity of any resolute lad to make for himself. We begin with a view of kiteflying on a Chinese gala day,



A Chinese Gala Day.

just to show what may be achieved by skill and perseverance combined. Mr. Beard shall do the rest.

It is a pleasant sensation to sit in the first spring sunshine and feel the steady pull of a

good kite upon the string, and watch its graceful movements as it ways from side to side, ever mounting higher and higher, as if impatient to free itself and soar away amid the clouds. The pleasure is, however, greatly enhanced by the knowledge that the object skimming so bird-like and beautifully through the air is a kite of your own manufacture. I propose to tell you how to make some new kinds of kites, and the first and chief of these is the

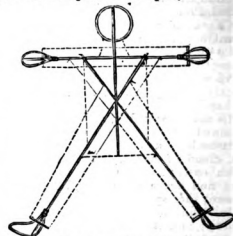


Man Kite.

MAN KITE.

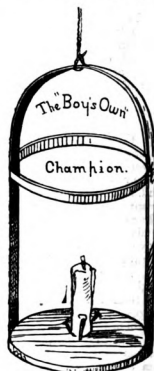
To make this you will require four sticks, some rattan, and some tissue paper. In regard to his size, I would suggest that the larger the man is the better he will fly. Now let us sup-

pose you are going to make this fellow four feet high. First, cut two straight sticks, three feet nine inches long; these are to serve for the legs and body; cut another straight stick, two and a half feet in length for the spine, and a fourth stick, three feet five inches long, for the arms. For the head, select a light piece of split rattan—any light, tough wood that will bend readily will do—bend this in a circle eight inches in diameter, fasten it securely to one end of the spine by binding it with strong thread, being careful that the spine runs exactly through the centre of the circle. Next find the exact centre of the arm-stick, and with a pin or small tack fasten it at this point to the spine, two inches



Frame of Man Kite.

below the chin. After wrapping the joint



Frame of Lantern:

tightly with strong thread, lay the part of the skeleton which is finished flat upon the floor,

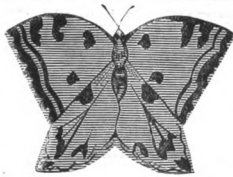


Woman Kite.

Frame of Woman Kite

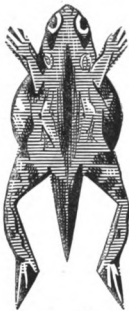
mark two points upon the arm-sticks for the shoulder-joints, each seven inches from the in-

tersection of the spine and arm-stick, which will place them fourteen inches apart. At these points fasten with a pin the two long sticks that are to serve for the body and legs. Now cross these sticks as shown in diagram, being careful that the terminations of the lower limbs are at least three feet apart; the waist-joint ought then to be about ten inches below the arm-stick. After taking the greatest pains to see that the arm-stick is perfectly at right angles with the spine, fasten all the joints securely. Upon the arms bind oblong loops of rattan, or of the same material as the head-frame. These hand-loops ought to be about



Butterfly Kite and Frame.

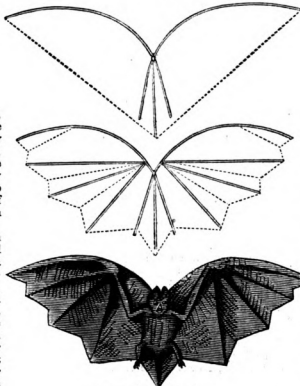
string at the right shoulder-joint, drop the thread down to a point exactly opposite the termination of the spine upon the right leg, take a wrap and draw the line across to point upon left leg exactly opposite, bind it there, then bring it up to left shoulder-joint and tie it. For the trousers, fasten a string at a point on right arm-stick, eleven inches from the intersection of spine, extend it down in a straight line to inside end of cross-stick of left limb and fasten it there. Tie another string at a point one inch and a half to the left of spine upon right arm-stick, extend it down in a straight line to outside end of cross-stick of left limb. Go through



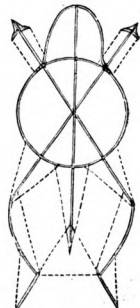
Frog Kite.

three inches broad at their widest parts, and exact counterparts of each other. The loops for the feet must approach as nearly as possible the shape of feet, and these, too, must be exactly alike, or the kite will be "lopsided," or unequally balanced. Now cut two sticks three inches long, for the ends of sleeves and bottoms of trousers; fasten them on as shown in the illustration.

Now the strings must be put on, as shown by the dotted lines in the diagram, at equal distances from the spine, and about seven inches apart. Tie two strings to the arm-sticks, extend them slantingly to the head, and fasten them. Take another thread and fasten to the top of cross-stick of right arm, pass it over and take a wrap around the spine, continue it to top of cross-stick upon left arm, and there tie it. Fasten another string to bottom of cross-stick on right arm, draw it tight and wrap it on spine four inches below intersection of arm-stick, pass it on to the bottom of cross-stick on left arm, draw taut and fasten it. Tie the body.



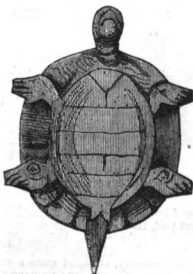
Bat Kite and Frame.



Frame of Frog Kite.

the same process for the right leg of the trousers, and the framework will then be complete.

Now paste some sheets of tissue-paper together, red for the trousers, hands, and face, blue for the coat, and black, or some dark colour, for the feet. In pasting, do not make the seams, or overlaps, of the paper more than half an inch wide, and measure the paper so that the coat will join the trousers at the right spot. When you are satisfied that this is all right, lay the paper smoothly on the floor, and place the frame of the kite upon it, using heavy books or paper-weights to hold it in place. Then with a pair of scissors cut the paper round the frame, leaving a clear edge of half an inch, and making a slit through the margin at each angle; cover the margins with paste, turn them over, and with a towel or an old rag press them down. After the kite is all pasted and dry, take a large paint-brush, and with black marking-paint or india-ink put in the buttons



Turtle Kite.

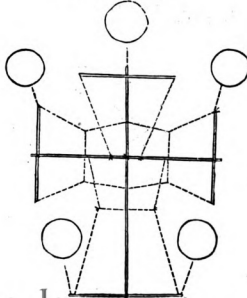
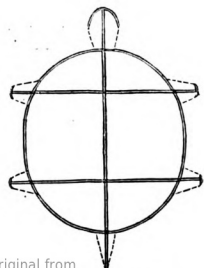


Diagram showing Construction of Balloon Kite.

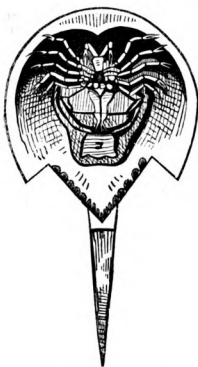


Frame of Turtle Kite.

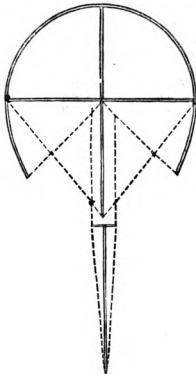
and binding on coat with a good broad touch. The face and hair must be painted with broad lines, so that they may be seen clearly at a great

rattan or whalebone will answer better than wood. By our diagram you can make a kite which will carry up five air-balloons.

found that my man was stronger than his master, and I could not hold him! Imagine, if you can, my dismay. I fancied myself being



The King Crab Kite.



Framework.

height. Follow this rule wherever you have to use paint upon any kind of kite.

THE MOVING STAR

is a paper lantern attached to the tail of any large kite. A Chinese lantern will answer this purpose, although it is generally so long and narrow that the motion of the kite is apt to set fire to it.

To make a more suitable lantern, take a circular piece of light board five inches in diameter, drive three nails in the centre, just far enough apart to allow a candle to fit between them firmly. Make of rattan or wire a light hoop of the same diameter as the bottom-piece; fasten these to a strap or handle of wood, or wire, as shown in the diagram on page 556, and cover the body of the lantern with red tissue paper.

This lantern, fastened to the tail of a large kite that is sent up on a dark night, will go hobbling around in a most eccentric and apparently unaccountable manner, striking with wonder all observers not in the secret.

THE WOMAN KITE.

though differing in form, is made after the same method as the man kite, and with the aid of our diagram any boy can build one if he is careful to keep the proper proportions, making the width at the hips a little less than half the height. The costume given in the illustration may be varied according to fancy, with the same framework.

If you have been successful in making the foregoing kite-patterns, you can try your skill in the manufacture of the

FROG KITE.

This should be at least two feet high. It is hardly necessary to go into the details of this kite, as the diagram on page 557 shows Mr. Frog's anatomy complete. By carefully following the construction according to the diagrams, the average boy will, with a little ingenuity, be able to build this, or in fact any of the kites here given, for accompanying each illustration is a complete plan of the framework,—the solid lines representing the sticks, the dotted lines the strings. Care must be taken to select pliable wood, and make the parts that require bending thinner than the rest of the stick. In some parts of these new-fashioned kites, especially if they be made on a small scale, thin strips of

KITE-TAILS.
Kites can be made without tails, but it is not their natural condition, and as tailless kites are not easy to fly, all these new ones should be furnished with tails.

A tail made of string, weighted with bunches of different coloured paper tied at regular intervals, is popular with many boys, but on account of its liability to become tangled with the kite string or twisted up in bunches, it is never used by the accomplished kite-flyer.

The most graceful, serviceable, and practical kite-tail is made of rags torn in strips of from one to two inches in width, according to the size of the kite. This mention of the size of a kite recalls an incident of my boyhood.

I remember, when quite a small boy, building an immense man kite, seven feet high. It was a gorgeous affair, with its brilliant red nose and cheeks, blue coat, and striped trousers.

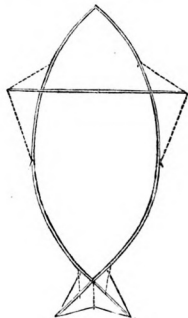
As you may imagine, I was nervous with anxiety and excitement to see it fly. After several experimental trials to get the tail rightly balanced, and the breast-band properly adjusted, and having procured the strongest hempen twine to fly it with, I went to the river-bank for the grand event.

My man flew splendidly; he required no running, no hoisting, no jerking of the string to assist him. I had only to stand on the high bank and let out the string, until my fingers were almost blistered, so fast did the twine pass



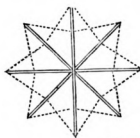
Fish Kite.

pulled from the bank into the river, and skimming through the water at lightning speed, for,



Frame of Fish Kite.

even in my fright, the idea of letting go of the string did not once occur to me. However, to my great relief, a man standing near came to my assistance, just as the stick upon which the twine had been wound came dancing up from



Star Kite and Frame.

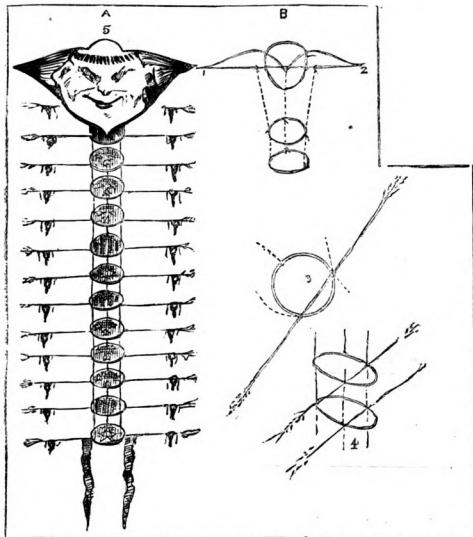


through my hands. People began to stop and gaze at the queer sight, as my man rose higher and higher, when, suddenly, my intense pride and enjoyment was changed into something very like fright.

The twine was nearly all paid out, when I

the ground towards my hands. So hard did the kite-giant pull, that even the friend, who had kindly come to the rescue, had considerable trouble to hold it. The great kite, swinging high in the blue sky, attracted quite a crowd, and I felt very grand about my new flying-man;

but my triumph was short-lived. The tail made of rags was too heavy to bear its own weight and tattered paper. So you see, kite-tails should be strong.



Chinese Kite and parts of the Frame.

weight, and breaking off near the kite, it fell to the ground, while my kite, freed from this load, shot up like a rocket, then turned, and came headlong down with such force that, dashing through the branches of a thorny locust-tree, it crashed to the ground, a mass of broken sticks

THE DECORATIVE CHINESE KITE.

This kite is a most resplendent affair, and glitters in the sunlight as if it were covered with jewels. It is rather complicated to look at, but

not very difficult to make. The one I have before me was made in China.

The top or horizontal stick (n, 1-2) is three feet long, half an inch wide, and one-eighth inch thick. The face can be simplified by using a loop, as in the man kite. Two more loops, as shown in the diagram (n), will serve as frames for the wings. Paper is pasted upon this, and hangs loose like an apron in front below the cross-stick (n, 1-2), cut long enough to cover the first disk of the tail-piece, as shown in the finished kite (A). This head-piece is ornamented with brilliant colours, bits of looking-glass pasted on or attached with strings, so that they dangle loosely, etc.; this makes the top rather heavy, as, in fact, it ought to be, for then it serves to balance the tail, which, in this instance, actually is the kite. This is a succession of circular kites, ten inches in diameter, and thirteen in number, connected with one another by string. Attached to each of these paper disks is a slender piece of reed or grass with a tufted head; a similar tuft is fastened by a string to the opposite end to balance it. The breast-band is made like that upon an ordinary kite; the cross-strings, being attached to the face at the top and bottom, intersect each other about opposite a point between the eyes.

Diagram B represents a single disk for tail, showing where the reed and strings are attached. B is a side view of two disks, showing the way in which they are connected by strings, six and a half inches space being left between each two disks. A 5 is a front view of finished kite.



OUR NOTE BOOK.

Admiral Hobson.

BONCHURCH gave birth to a gallant seaman, Admiral Hobson, who broke the boom at Vigo, in 1702. He was in early life a tailor's apprentice at a place called Niton. A strange story is told of the commencement of his naval career. A squadron of men-of-war were sailing off the Isle of Wight. Hobson and his comrades hastened down to the beach to gaze the better on so grand a spectacle. It so aroused his latent passion for adventure, that he sprang at once into a boat, rowed off to the squadron, gained the admiral's vessel, and was welcomed as a volunteer. Later in life, when full of years and honours, he visited the picturesque village, and dined off bacon and eggs in the cottage where he had toiled as an apprentice.

A Just Rebuke.

SOME Englishmen were making an excursion in New Zealand, and engaged natives as guides and to carry their luggage. On the first Sabbath the Europeans were proposing to journey as usual, but the natives said, "No, we rest on the Sabbath." The chief of the guides was a Christian man, and stood firm. The Englishmen, like too many of our countrymen when abroad, forgot the religion of their early days. They got into a great rage, and refused to pay them if they did not obey orders. The natives

asked, "What are we to do with the law of God?" An Englishman answered, "What have we to do with the law of God? What is that to us?" One of the natives retorted, "You have much to do with that. If it were not for the law of God we should not remain quiet on your refusing to pay us for our labour. We should have taken by force what you have, and robbed if not killed you. You have *that* much to do with the law of God." What was the end of this strange scene we do not know, but we hope that among these Englishmen there was sufficient manliness and good feeling to accept the unexpected rebuke and to honour the Maori for his firmness and principle.

A Boy's School in Upper Egypt.

"We put our head in at the open door," says Dr. Kluninger's "Upper Egypt," "and see a worthy schoolmaster sitting with a cane in his hand in the midst of his scholars on the floor of the schoolroom. One of the crowd, holding up a wooden or metal tablet close in front of him, is practising himself in reading along the venerable basis of all science, the alphabet, which the master has written out for him with large strokes; another makes his first attempt at writing; a third, more advanced, is reading, or rather singing from the 'pre-eminent book,' the Koran, and accompanies his reading with an energetic oscillation of the upper part of his body. The master assists the efforts of every individual scholar with his superior knowledge,

and not rarely with the weight of his cane. Nor does he lose sight of the general body of scholars, for his cane comes down with the speed of lightning on the knuckles of some inattentive boys, who were carrying on all sorts of games behind his back. An assistant, chosen from among his pupils, aids him to the best of his ability in instructing the younger ones with a manifest consciousness of his own importance, and makes no scruple about letting those who have been placed under his charge feel the weight of the cane entrusted to him. In the case of one of the learners, the customary blows on the various members of the body having no effect, he was stretched out upon the ground by his fellow-pupils, who act with great readiness the part of officers to their master, and treated to the bastinado; or, in other words, caning upon the soles of the feet."

Peacemakers.

At the London School Board examination on Scriptural Knowledge, a boy, in his first year of apprenticeship, wrote the following brief but expressive answer to the question, "What is this special blessing promised the peacemakers?" "They shall be called the children of God. This promise is specially fitted for them because God is the source of all true peace. We are also told that Christ is the Prince of Peace. Our Saviour calls Himself our elder brother, so therefore the peacemakers are truly called the children of God."