

CHINESE KITES.

The art of constructing kites is much cultivated in the East, and the Chinese, who have at hand the bamboo, India paper, and thin silk, excel in the manufacture of very ingenious devices of varied forms.

One of our correspondents in China, Mr. Huchet, at present in Paris, has had the kindness to have made for our purposes, by a skillful Chinese manufacturer, a series of models representing the different types of kites used everywhere in China, Annam, and Tonkin, and which the same gentleman has been obliging enough to bring to us in person.

Fig. 1 represents the simplest form of these kites. Its frame is formed solely of a stiff bamboo stick, A B, and two slightly curved side rods, C D and E F. To this frame is pasted a sheet of paper, which is somewhat loose at the extremities, C E and D F, where, under the action of the wind, pockets are formed that keep the affair bellied and in an excellent position of equilibrium. Our engraving shows the mode of attaching the strings that serve to fix it. Kites of this kind are usually about three feet in width.

Fig. 2 shows the appearance of the musical kite, so called because it is provided with a bamboo resonator, R, containing three apertures, one in the center and one at each extremity. When the kite is flying, the air, in rushing into the resonator, produces a somewhat intense and plaintive sound, which can be heard to a great distance. This kite is somewhat like the preceding, but the transverse rods of its frame are connected at the extremities and give the kite the aspect of two bird's wings affixed to a central axis. This kite sometimes reaches large dimensions—say ten feet in width. There are often three or four resonators placed one above another over the kite, and in this case a very pronounced grave sound is produced. Mr. Huchet informs us that the musical kite is very common in China and Tonkin. Hundreds of them are sometimes seen hovering in the air in the vicinity of Hanoi. This kite is the object of certain superstitious beliefs, and is thought to charm evil spirits away. To this effect, it is often, during the prevalence of winds, tied to the roofs of houses, where, during the whole night, it emits plaintive murmurs after the manner of *Æolian* harps.

Fig. 3 gives us the aspect of a bird kite, the frame of which is represented at the right of the figure. The thin paper attached to the wings moves under the action of the wind and simulates the flapping of the wings. This kite is sometimes three feet in length.

The most curious style of Chinese kites is the dragon kite, shown in Fig. 4. It consists of a series of small elliptic, very light disks formed of a bamboo frame covered with India paper. These disks are connected by two cords that keep them equidistant. A transverse bamboo rod is fixed in the long axis of the ellipse and extends a little beyond each disk. To each extremity of this is fixed a sprig of grass, that forms a balance on each side. The surface of the foremost disk is slightly convex, and a fantastic face is drawn upon it, having two eyes made of small mirrors. The disks gradually decrease in size from head to tail, and are inclined about 45° in the wind. As a whole, they assume an undulatory form, and give the kite the appearance of a crawling serpent. The rear disk is provided with two little streamers that form the tail of the kite. It requires great skill to raise this device.—*La Nature*.

Malaria.

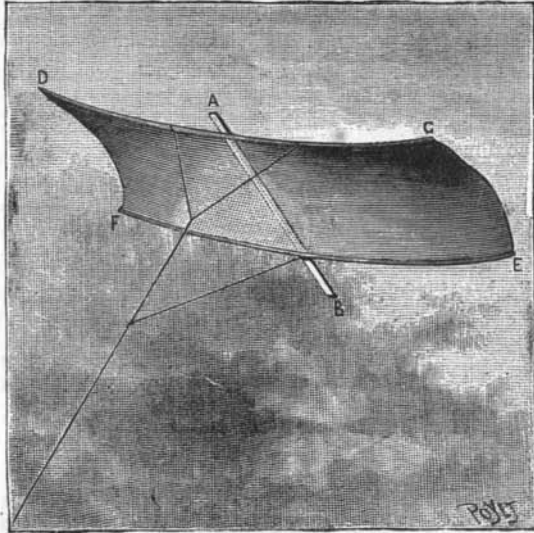
The circumstances under which malaria prevails as a local disease, though sufficiently marked, are yet in some degree complicated and perplexing. It is certain that the exciting cause of the disease is something present in invisible effluvia from the surface of the earth. It seems almost as certain that decomposing, or rather

the towns in this respect was a subject of constant remark. But now, as I learn from relatives living in these regions, malarial troubles are much less prevalent, drainage having had a markedly beneficial effect. A similar change, on a larger scale, has been produced throughout the eastern counties of England, where formerly aguish fevers were once very common. It

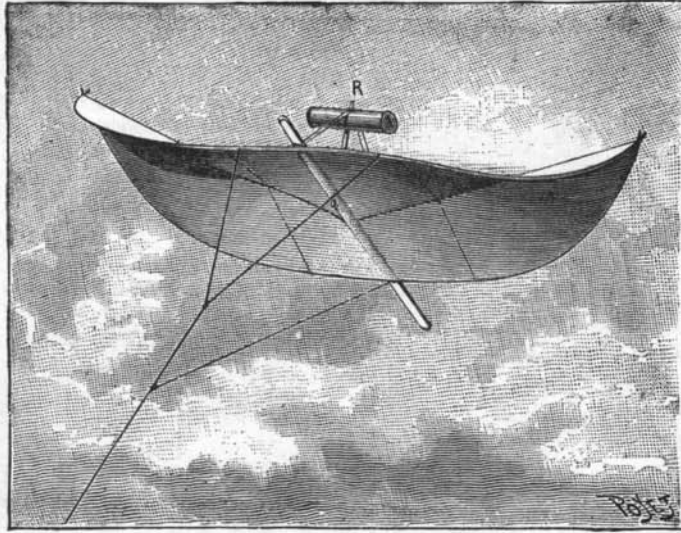
seems strange now to think of ague as one of the chief death-dealing diseases of parts of England, inasmuch that even in London, where now it is unknown, hundreds formerly fell victims to it.

In Switzerland the drainage of swamps has almost entirely killed out malaria in certain regions where it was once prevalent. They widened the channels of rivers running out of lakes in such sort as to lower the level of the lakes, and the lakes thus lowered drained the swamps. On the other hand, the bog lands of Ireland are free from malaria, whether

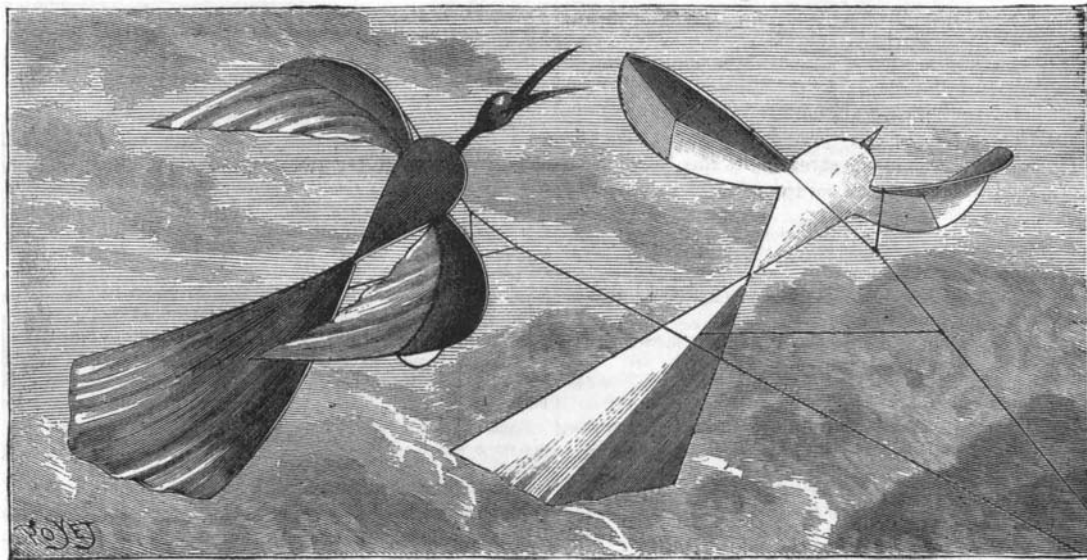
because peat moss does not contain the poisonous materials, or because the bogs remain too constantly moisture sodden, is not clear. It is stated also that malaria is unknown in the region of the Dismal Swamp. Elevation has a marked effect in regard to the prevalence of malaria, not only locally, but generally. Thus in certain shore tracts it has been noticed that near the sea level there is no malaria, while, again, above a certain height, as 300 or 400 feet, malaria is absent; but between these the disease is destructive and prevalent. Yet elevation alone does not prevent malaria from appearing.—*R. A. Proctor, Louisville Cour. Jour.*



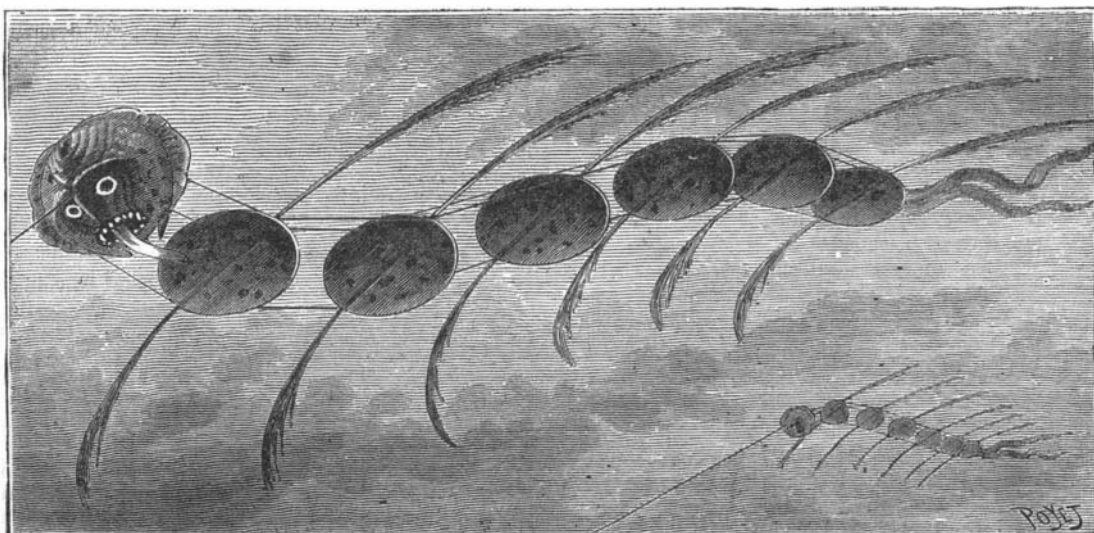
SIMPLEST FORM OF CHINESE KITE.



MUSICAL KITE, WITH BAMBOO RESONATOR.



BIRD KITE, AND FRAME USED IN MAKING IT.



THE DRAGON KITE.

decomposed, vegetable matter is the source of the infection; yet the appearance of malaria in such a place as the rock of Gibraltar, which is characterized by an entire absence of vegetation, presents an apparent exception which prevents us from definitely deciding that vegetable matter alone can produce the malarial infection. Moisture is necessary to produce the poison; yet moisture alone, or even with the necessary degree of heat, is not sufficient; on the contrary, it appears that if only the soil whence malarial effluvia have arisen could be kept permanently soaked with moisture, there

would be no infection: The soil must be for a while sodden with moisture, then dried, before the invisible effluvia—the marsh miasma—become dangerous. The heat necessary to produce the poison must be somewhat greater than 60 degrees, somewhat less than 80 degrees; between these limits, but not outside them, heat does its poison-generating work. We have in these conditions alone a certain power of influencing malaria, as has been shown by repeated examples. I remember that in my boyhood aguish fevers were very common in parts of Kent, near the shores of the Thames and Medway. The difference between the country and

tached to the negative pole of the accumulator; and a carbon pencil, such as is used in ordinary arc lamps, is connected with the positive pole of the battery. The result of bringing the carbon pencil into contact with the metal, and then slightly withdrawing it, is to start an electric arc, which fuses the metals at the desired joint until they run together. Carbon blocks may be used to retain the molten metal in its place, and sometimes a little sand is used as a flux. In this way boiler plates can be welded *in situ*, blow holes in castings filled up, and iron rods joined. Thus it appears that the new welding process is very

A New Process of Electrical Welding.

A new system of electric welding has been perfected by Dr. Bernardo, of St. Petersburg. The process of electric welding hitherto practiced for joining bars, etc., is the device of Prof. Elihu Thomson, of Boston, Mass., and depends upon causing the bar to be traversed by an alternating current of electricity powerful enough to fuse the metal at the point of resistance caused by the break of continuity. In the new system, however, a continuous current from a charged accumulator is employed. The metals to be joined are attached to the negative pole of the accumulator; and a carbon pencil, such as is used in ordinary arc lamps, is connected with the positive pole of the battery. The result of bringing the carbon pencil into contact with the metal, and then slightly withdrawing it, is to start an electric arc, which fuses the metals at the desired joint until they run together. Carbon blocks may be used to retain the molten metal in its place, and sometimes a little sand is used as a flux. In this way boiler plates can be welded *in situ*, blow holes in castings filled up, and iron rods joined. Thus it appears that the new welding process is very

FLUID extract of quebracho, according to a writer in *Arch. Med. Belges*, applied to a wound, burn, ulcer, or frost bite, is more healing even than iodoform. On evaporation the fluid extract leaves a tough adhesive brownish crust, under which the process of repair goes on rapidly. If desired, this can be removed by soaking in warm water.